

**A STUDENT'S PROJECT REPORT
ON
ONLINE EXAMINATION SYSTEM**



SUBMITTED BY

- 1. A. SHARATH (HT. NO. 00616-4402)**
B.Sc. (M.P.CS) FINAL YEAR
- 2. B. RAMGOPAL (HT. NO. 00616-4403)**
B.Sc. (M.P.CS) FINAL YEAR
- 3. B. SAI RAM (HT. NO. 00616-4405)**
B.Sc. (M.P.CS) FINAL YEAR
- 4. D. ARUNA(HT. NO. 00616-4411)**
B.Sc. (M.P.CS) FINAL YEAR
- 5. M. SHRAVAN KUMAR (HT. NO. 00616-4219)**
B.Sc. (M.P.CS) FINAL YEAR
- 6. G. SHRAVAN KUMAR(HT. NO. 17216-4121)**
B.Sc. (M.P.CS) FINAL YEAR

Under The Guidance Of
Dr. D. SURESHBABU
Assistant Professor

**DEPARTMENT OF COMPUTER SCIENCE,
KAKATIYA GOVERNMENT COLLEGE,
HANAMKONDA, DIST. WARANGAL URBAN.**

**KAKATIYA GOVERNMENT COLLEGE,
HANAMKONDA, DIST. WARANGAL URBAN.
(Affiliated to Kakatiya University)**

CERTIFICATE

This is to certify that the Project Report entitled “**ONLINE EXAMINATION SYSTEM**”, submitted to the Commissioner of Collegiate Education Hyderabad, for the Best student Project award in **JIGNASA** Competition, was carried out by the following students under my guidance.

1. **A. SHARATH (HT. NO. 00616-4402)**
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B.Sc. (M.P.CS) FINAL YEAR

Name & Address of the Guide
Dr. D. SURESH BABU,
Assistant Professor
Department of Computer Science

Signature of the Guide

Attested by

DECLARATION

We, hereby declare that the project report entitled “**ONLINE EXAMINATION SYSTEM**” submitted to the Commissioner of Collegiate Education Hyderabad, for the Best student Project award in **JIGNASA** Competition is a Bonafied work under taken by us and it is not submitted to any other University or Institution for the award of any Degree/ Diploma certificate on any time before.

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ABSTRACT

The project is about an Online Examination System designed with the specific goal of reducing hard job of assessing the answers given by the candidates manually. Online Examination will reduce the huge work done by teachers, administrators and also students. Responses by the candidate will be checked automatically and instantly which reduces student anxiety. By using Online Examination System paper work is reduced. Online Examination System contains modules such as Admin/Examiner Module and Student Module. Online Examination System (OES) is a web application.

It can observe that the information required can be obtained with ease and accuracy in the computerized system from the Database. The Online Examination System provides brief result to Students. The Online Examination System will permit to take and give online examination and maintaining master information and generating various reports of test. The main users of the project are Student or Member and system Administrator. From an end-user perspective, the Examination System Project consists of two functional elements: Enhanced Member modules for registration, giving examination, manage profile and Administration module for Mange members, examination, question bank and view the reports.

1. INTRODUCTION

Examination is a test not just for the person who gives the exams but also a big test for the management and teacher who arranges the exams. The traditional method of exams involves the paperwork, then checking the papers, arranging the marks and then finally feeding the results in computer for printing the reports. Online Examination System removes most the drawback that was in the traditional method. The exams is not online so user can give the exams from anywhere around the world. Also the exams results can be calculated automatically just at the end of exams. It also minimizes the error in calculating results which humans do most of the time. Also the most important benefit of making exams online is the data is saved in a structured format which can be used for detail report to make reports, charts and presentation over a period of time. A person can check question paper that was published 10 years ago in an instant.

The purpose of this document is to analyze and elaborate on the high-level needs of the Online Examination System.

1.1. Overview of the System

Online examinations, sometimes referred as e-examinations, are the examinations conducted through the internet or in an intranet (if within the Organization) for a remote candidate(s). Most of the examinations issue results as the candidate finish the examination, when there is an answer processing module also included with the system.

They can be used to efficiently evaluate the candidate thoroughly through a fully automated system that not only saves lot of time but also gives fast results. For students they give papers according to their convenience and time and there is no need of using extra thing like paper, pen etc.

These examinations are conducted as open-book type examinations. Candidate is given a limited time to answer the questions and after the time expiry the answer paper is disabled automatically and answers is sent to the examiner. The examiner will evaluate answers, either through automated process or manually and the results will be sent to the candidate through

email or made available in the web site. Today many organizations are conducting online examinations worldwide successfully and issue results online.

There are advantages and disadvantages in online examinations. The main advantage is that it can be conducted for remote candidates and evaluation of answers can be fully automated for Multiple Choice questions can be evaluated manually or through automated system, depending on the nature of the questions and the requirements. Also online examinations can be conducted at any time and does not incur higher cost as traditional exam scenario as there is no paper work involved(e.g: printing exam papers, prepare paper admissions etc). When comparing with traditional exam scenario the cost for an online examination will be almost zero after the online exam system is establishment and if maintenance cost is not considered.

There are methodologies used in these examinations, when registering candidates and presentation of questions, so that to test candidates knowledge and skills. However with a limited time, candidate is not capable of totally depend on the reference materials or a supporting person.

1.2. Aim of the Project

The aim of this project is to develop an online examination system by applying software engineering principles and best practices. The system will be built using popular Java/J2EE web technologies and framework available for web development. The system will be designed to be scalable, secure and robust.

The online examination system will help in speeding up the process of conducting examination. Teachers will be able to create examinations by composing a set of questions. The questions can be multiple choice questions or single (text) answer question. The system will have the ability to automatically process the results of examination based on the question database. The system will have intelligent capabilities to mark the text based answers not only when there is an exact match, but it will also recognize similar answers by finding the synonyms of the words used in the answer. The system will also provide manual override feature where in the teacher can manually mark or update the result for an exam. The system will also have the capability to resume the examination from last save point, i.e., a student can stop the examination

in the middle and can start again at any other time. When the student will start the same examination again, the exam will start from the same point where it was stopped. The system will present an easy to use interface for Teachers, Students and Administrators. Once logged in, students will be able to see the examinations due and can take the examination.

1.3. Existing System

The whole process of assigning test and evaluating their scores after the test, was done manually till date. Processing the test paper i.e. checking and distributing respective scores used to take time when the software was not installed.

Disadvantages of Current System

- The current system is very time consuming.
- To take exam of more candidates more invigilators are required but no need of invigilator in case of online examination.
- The chances of paper leakage are more in current system as compared to proposed system.
- Result processing takes more time as it is done manually.
- Difficulty to analyze the exam manually.
- Fatal error may occur if evaluation is done manually

1.4. Proposed System

The modern computerized system is developed with the aim to overcome the drawbacks of the existing system. The proposed system got many advantages. The new system is more personalized. It is made in such a manner that all the new users can easily understand all the options in it very easily. It is made in a quick and easy referential manner. It is easily understandable and user friendly, quick entries can be made in this system. The following are the advantages of proposed system.

Advantages

- In comparison to the present system the proposed system will be less time consuming and is more efficient.
- Fast, flexible, and less prone to errors and reduce expenses and save time.

- Generated result as soon as the student gives the exam.
- The logs of appeared student and their marks are stored in database for future use.
- Result will be very precise and accurate.

1.5. Feasibility Study

- a. **Technical Feasibility:** Evaluating the technical feasibility is the trickiest part of a feasibility study. This is because, at this point in time, not too many-detailed of the system, making it difficult to access issues like performance, cost on (on account of the kind of technology to be deployed) etc. A number of issues have to be considered while doing a technical analysis.

- b. **Operational Feasibility:** Proposed projects are beneficial only if they can be turned into information systems that will meet the organizations operating requirements. Simply stated, this test of feasibility asks if the system will work when it is developed and installed. Are there major barriers to implementation? Here are questions that will help test the operational feasibility of a project:
 - Is there sufficient support for the project from management from users? If the current system is well liked and used to the extent that persons will not be able to see reasons for change, there may be resistance.
 - Are the current business methods acceptable to the user? If they are not, User may welcome a change that will bring about a more operational and useful systems.
 - Have the user been involved in the planning and development of the project? Early involvement reduces the chances of resistance to the system and in General and increases the likelihood of successful project.

- c. **Economic Feasibility:** Economic feasibility attempts 2 weigh the costs of developing and implementing new system, against the benefits that would accrue from having the new system in place. This Feasibility study gives the top management the economic justification for the new system. A simple economic analysis which gives the actual comparison of costs and benefits are much more meaningful in this case. In addition, this proves to be a useful point of reference to compare actual costs as the project progresses.

There could include increased customer satisfaction, improvement in product quality better decision making timeliness of information, expediting activities, improved accuracy of operations, better documentation and record keeping, faster retrieval of information, better employee morale.

2. LITERATURE SURVEY

Literature survey is the most important step in software development process. Once these things are satisfied, next steps are to determine which operating system and language can be used for developing the tool. While building the tool programmers need a lot of external support. This support can be obtained from senior programmers, from book or from websites. Before building the system the above consideration are taken into account for developing the proposed system.

The advancements in Computer Sciences have certainly helped in creating such as Online Examination System (OES) is an web application so as to permit greater interactions between the candidates and web technologies. Dealing with large amount of data in a manual way will make things complicated that will result in data lost. Nowadays many institutions which in need of Online Examination System can manage easily and maintain data of their Students. Maintaining, managing, organizing exams and evaluating them is an important task which will be done easier with the existence of an Online Examination System.

3. DESIGN

3.1 SOFTWARE REQUIREMENTS SPECIFICATIONS

A Software Requirement Specification (SRS) is a document that clearly and precisely specifies each and every requirement for the software product as well as the external interfaces to hardware and firmware. Each requirement should be defined so that it can be verified by a method such as inspection, demonstration, analysis and testing. There are a number of desirable properties that a SRS should possess. In particular, the requirements documents should be:

- Correct
- Complete
- Consistent
- Functional
- Verifiable
- Easily changed

HARDWARE REQUIREMENT SPECIFICATIONS:

SERVER SIDE:

Processor : Pentium 4 and above.
Memory : 1 GB RAM.
Hard Disk : 4GB.

CLIENT SIDE:

Processor : Pentium 4 and above.
Memory : 512 MB RAM.
Browser : Any Browser.

SOFTWARE REQUIREMENT SPECIFICATIONS:

Server : Wamp server.
Programming Language : Php
Database : MySQL
Operating System : Windows XP and other Windows based Operating Systems

- **Functional Requirements:** Functional requirements specify which output file should be produced from the given file they describe the relationship between the input and output of the system, for each functional requirement a detailed description of all data inputs and their sources. The range of valid inputs must be specified.
- **Non Functional Requirements:** Describe user-visible aspects of the system that are not directly related with the functional behavior of the system. Nonfunctional Requirements include quantitative constraints, such as response time or accuracy.

SOFTWARE DESCRIPTION

FRONT-END

PHP

PHP is an open source general purpose scripting language that is especially suited for web development and can be embedded into HTML.

PHP scripts are executed on the server side.

It is server side scripting language.

Php is a recursive acronym abbreviated as HYPERTEXT PREPROCESSOR.

Php files can contain Text, HTML, CSS, JavaScript and Php code.

Php code are executed on the server, and the result is returned to the browser as a plain HTML.

Php files have extension “.php”.

Php can generate Dynamic page content.

Php can create, open, read, write, delete and close files on the server.

Php can collect form data.

Php can send and receive cookies.

Php can add, delete and modify data in your database.

Php is used to control user-access.

Php can encrypt data.

Php runs on various platforms such as Windows, LINUX, UNIX, Mac OS X etc.

Php is compatible with almost all servers used today.

Php supports a wide range of Databases.

Php is easy to learn and runs efficiently on server side.

PHP page structure: Below is a visualization of a Php page structure embedded into HTML:

```
<html>
  <head>
    <title>Example</title>
  </head>
  <body>
    <?php
      echo "Hi, I'm a PHP script!";
    ?>
  </body>
</html>
```

Writing HTML Using Notepad++ or Editplus

Follow the 4 steps below to create your first web page with Notepad.

Step 1: Start Notepad++

To start Notepad++ go to:

Start

AllPrograms

Accessories

Notepad++

Or

Press windows+r -> and type Notepad++

Step 2: Edit Your Phpcode with Notepad++

Type your Php code into your Notepad++:

Step 3: Save Your Php.

Select Save as in Notepad++'s file menu.

When you save a Php file, save as .php file extension.

Step 4: Run the Php in Your Browser

Start your web browser and open your Php file from the File, Open menu, or just browse the folder and double-click your Php file.

Database

A database is a separate application that stores a collection of data. Each database has one or more distinct APIs for creating, accessing, managing, searching and replicating the data it holds. Other kinds of data stores can be used, such as files on the file system or large hash tables in memory but data fetching and writing would not be so fast and easy with those types of systems. So nowadays, we use relational database management systems (RDBMS) to store and manage huge volume of data. This is called relational database because all the data is stored into different tables and relations are established using primary keys or other keys known as foreign keys. A Relational Database Management System (RDBMS) is software that:

- Enables you to implement a database with tables, columns and indexes.
- Guarantees the Referential Integrity between rows of various tables.
- Updates the indexes automatically.
- Interprets an SQL query and combines information from various tables.

RDBMS Terminology:

- a. **Database:** A database is a collection of tables, with related data.
- b. **Table:** A table is a matrix with data. A table in a database looks like a simple spreadsheet.
- c. **Column:** One before we proceed to explain MySQL database system, let's revise few definitions related to database. Column (data element) contains data of one and the same kind, for example the column postcode.
- d. **Row:** A row (= tuple, entry or record) is a group of related data, for example the data of one subscription.
- e. **Redundancy:** Storing data twice, redundantly to make the system faster.
- f. **Primary Key:** A primary key is unique. A key value cannot occur twice in one table. With a key, you can find at most one row.
- g. **Foreign Key:** A foreign key is the linking pin between two tables.
- h. **Compound Key:** A compound key (composite key) is a key that consists of multiple columns, because one column is not sufficiently unique.
- i. **Index:** An index in a database resembles an index at the back of a book.

- j. **Referential Integrity:** Referential Integrity makes sure that a foreign key value always points to an existing row.

MySQL Database:

MySQL is a fast, easy-to-use RDBMS being used for many small and big businesses. MySQL is developed, marketed, and supported by MySQL AB, which is a Swedish company. MySQL is becoming so popular because of many good reasons:

- MySQL is released under an open-source license. So you have nothing to pay to use it.
- MySQL is a very powerful program in its own right. It handles a large subset of the functionality of the most expensive and powerful database packages.
- MySQL uses a standard form of the well-known SQL data language.
- MySQL works on many operating systems and with many languages including PHP, PERL, C, C++, JAVA, etc.
- MySQL works very quickly and works well even with large data sets.
- MySQL is very friendly to PHP, the most appreciated language for web development.
- MySQL supports large databases, up to 50 million rows or more in a table. The default file size limit for a table is 4GB, but you can increase this (if your operating system can handle it) to a theoretical limit of 8 million terabytes (TB).
- MySQL is customizable. The open-source GPL license allows programmers to modify the MySQL software to fit their own specific environments.

3.2 DATAFLOW DIAGRAMS

A data flow diagram is graphical tool used to describe and analyze movement of data through a system. These are the central tool and the basis from which the other components are developed. The transformation of data from input to output, through processed, may be described logically and independently of physical components associated with the system. These are known as the logical data flow diagrams. The physical data flow diagrams show the actual implements and movement of data between people, departments and workstations. A full description of a system actually consists of a set of data flow diagrams. Using two familiar notations Yourdon, Gain and Samson notation develops the data flow diagrams. Each component

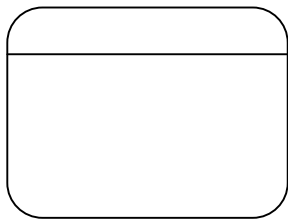
in a DFD is labeled with a descriptive name. Process is further identified with a number that will be used for identification purpose.

A DFD is also known as a “bubble Chart” has the purpose of clarifying system requirements and identifying major transformations that will become programs in system design. So it is the starting point of the design to the lowest level of detail. A DFD consists of a series of bubbles joined by data flows in the system.

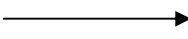
DFD SYMBOLS:

In the DFD, there are four symbols

1. A square defines a source(originator) or destination of system data
2. An arrow identifies data flow. It is the pipeline through which the information flows
3. A circle or a bubble represents a process that transforms incoming data flow into outgoing data flows.
4. An open rectangle is a data store, data at rest or a temporary repository of data



Source or Destination of data

Data flow 

Data design



CONSTRUCTING A DFD:

Several rules of thumb are used in drawing DFD'S. Process should be named and numbered for an easy reference. Each name should be representative of the process. The direction of flow is from top to bottom and from left to right. Data traditionally flow from source to the destination although they may flow back to the source. One way to indicate this is to draw long flow line

back to a source. An alternative way is to repeat the source symbol as a destination. Since it is used more than once in the DFD it is marked with a short diagonal. When a process is exploded into lower level details, they are numbered. The names of data stores and destinations are written in capital letters. Process and dataflow names have the first letter of each word capitalized.

TYPES OF DATA FLOW DIAGRAMS

- a. Current Physical
- b. Current Logical
- c. New Logical
- d. New Physical

- a. **Current Physical:** In Current Physical DFD process label include the name of people or their positions or the names of computer systems that might provide some of the overall system-processing label includes an identification of the technology used to process the data. Similarly data flows and data stores are often labels with the names of the actual physical media on which data are stored such as file folders, computer files, business forms or computer tapes.
- b. **Current Logical:** The physical aspects at the system are removed as much as possible so that the current system is reduced to its essence to the data and the processors that transforms them regardless of actual physical form.
- c. **New Logical:** This is exactly like a current logical model if the user were completely happy with the user were completely happy with the functionality of the current system but had problems with how it was implemented typically through the new logical model will differ from current logical model while having additional functions, absolute function removal and inefficient flows recognized.
- d. **New Physical:** The new physical represents only the physical implementation of the new system.

RULES GOVERNING THE DFD'S PROCESS:

- No process can have only outputs.
- No process can have only inputs. If an object has only inputs than it must be a sink.
- A process has a verb phrase label.

Data Store: Data cannot move directly from one data store to another data store, a process must move data. Data cannot move directly from an outside source to a data store, a process, which receives, must move data from the source and place the data into data store. A data store has a noun phrase label.

Source or Sink: Data cannot move directly from a source to sink it must be moved by a process. A source and /or sink has a noun phrase label

Data Flow: A Data Flow has only one direction of flow between symbols. It may flow in both directions between a process and a data store to show a read before an update. The later is usually indicated however by two separate arrows since these happen at different type. A join in DFD means that exactly the same data comes from any of two or more different processes data store or sink to a common location. A data flow cannot go directly back to the same process it leads. There must be at least one other process that handles the data flow produce some other data flow returns the original data into the beginning process. As Data flow to a data store means update (delete or change). A data Flow from a data store means retrieve or use.

UNIFIED MODELLING LANGUAGE DIAGRAMS

The unified modeling language allows the software engineer to express an analysis model using the modeling notation that is governed by a set of syntactic and programmatic rules. A UML system is represented using five different views that describe the system from distinctly different perspective. Each view is defined by a set of diagram, which is as follows.

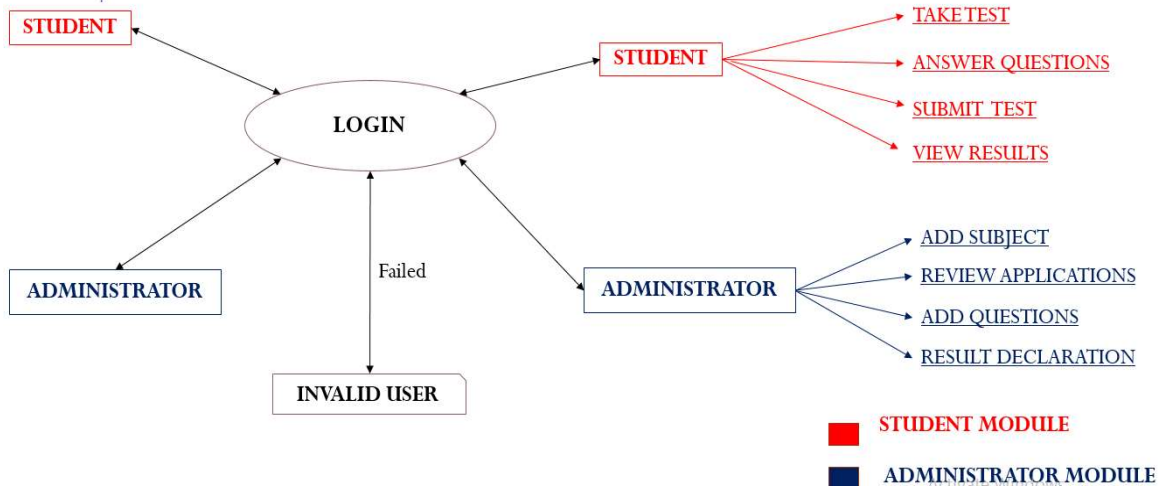
- a. **User Model View:** This view represents the system from the user's perspective. The analysis representation describes a usage scenario from the end-users perspective.

- b. **Structural Model View:** In this model the data and functionality are arrived from inside the system. This model view models the static structures.
- c. **Behavioral Model View:** It represents the dynamic of behavioral as parts of the systems, depicting the interactions of collection between various structural elements described in the user model and structural model view.
- d. **Implementation Model View:** In this structural and behavioral as parts of the systems are represented as they are to be built.
- e. **Environmental Model View:** In this the structural and behavioral aspects of the environment in which the system is to be implemented are represented. UML is specially constructed through two different domains they are
 - i. UML analysis modeling, which focuses on the user model views of the system?
 - ii. UML design modeling, which focuses on the behavioral modeling, implementation modeling and environmental model view.

DIAGRAMS:

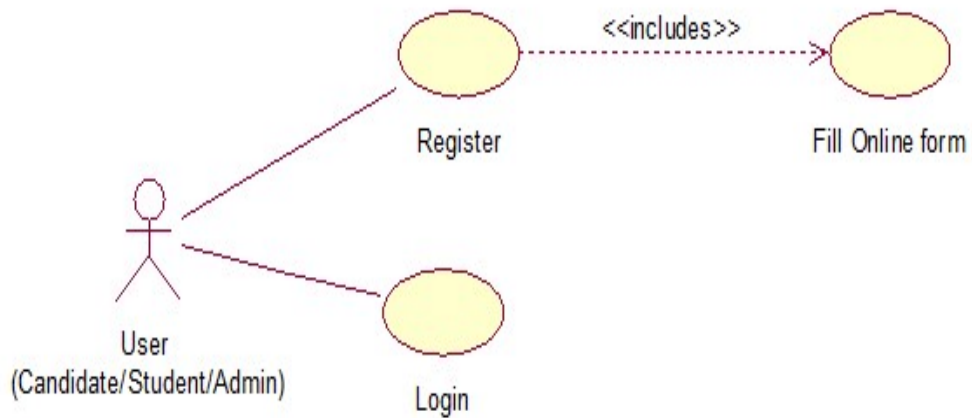
ARCHITECTURAL OVERVIEW OF OES

DATA FLOW DIAGRAM

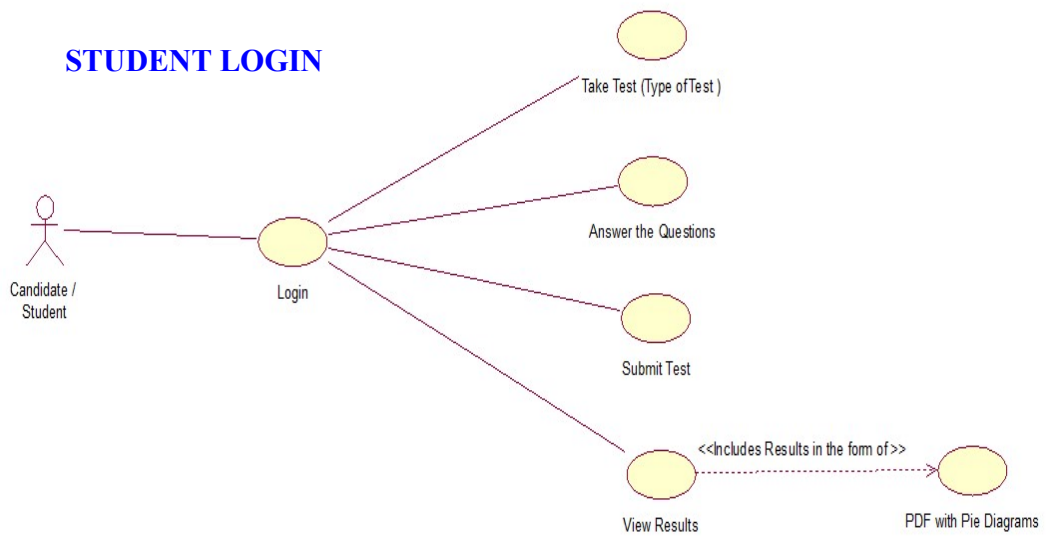


USECASE DIAGRAMS

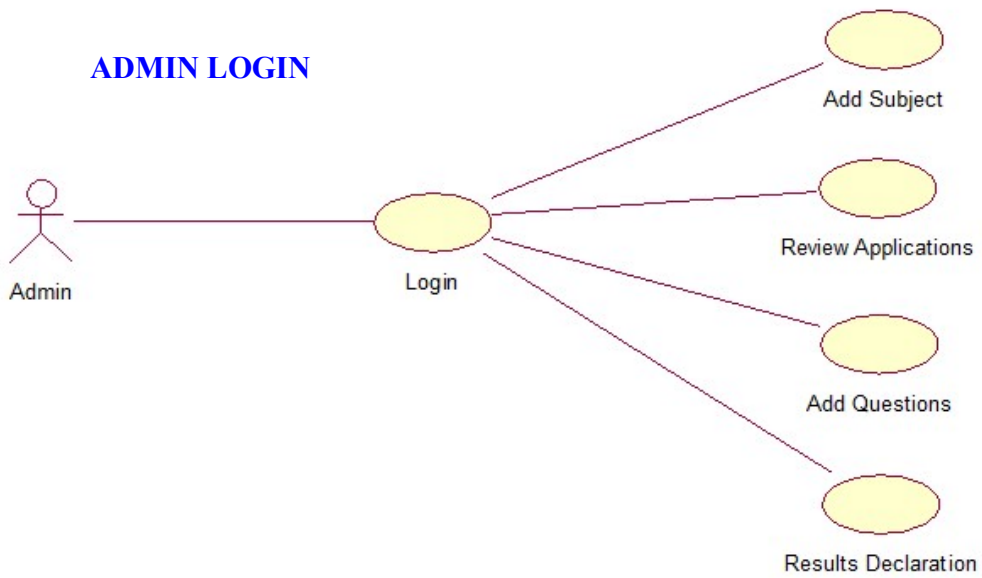
STUDENT LOGIN

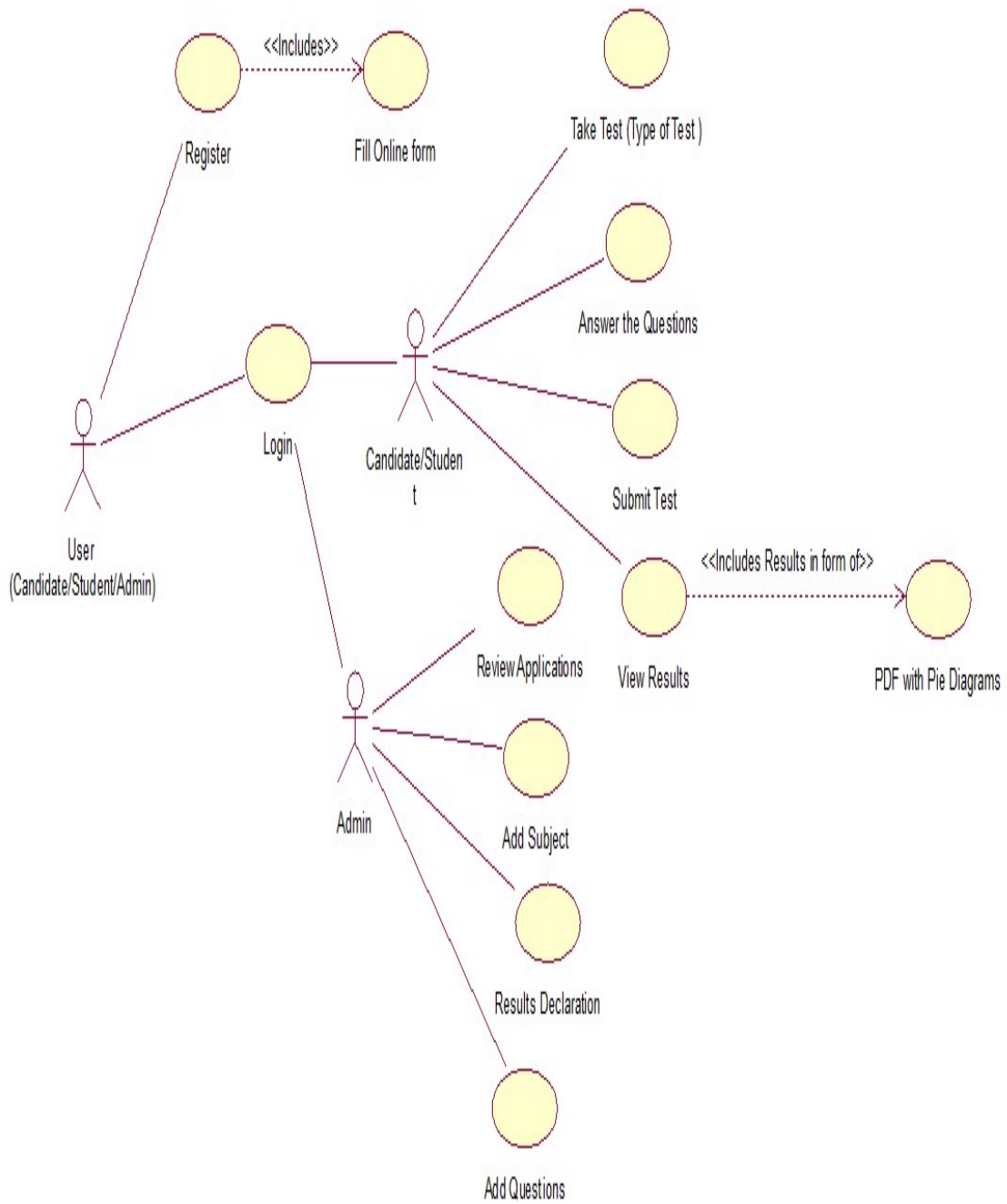


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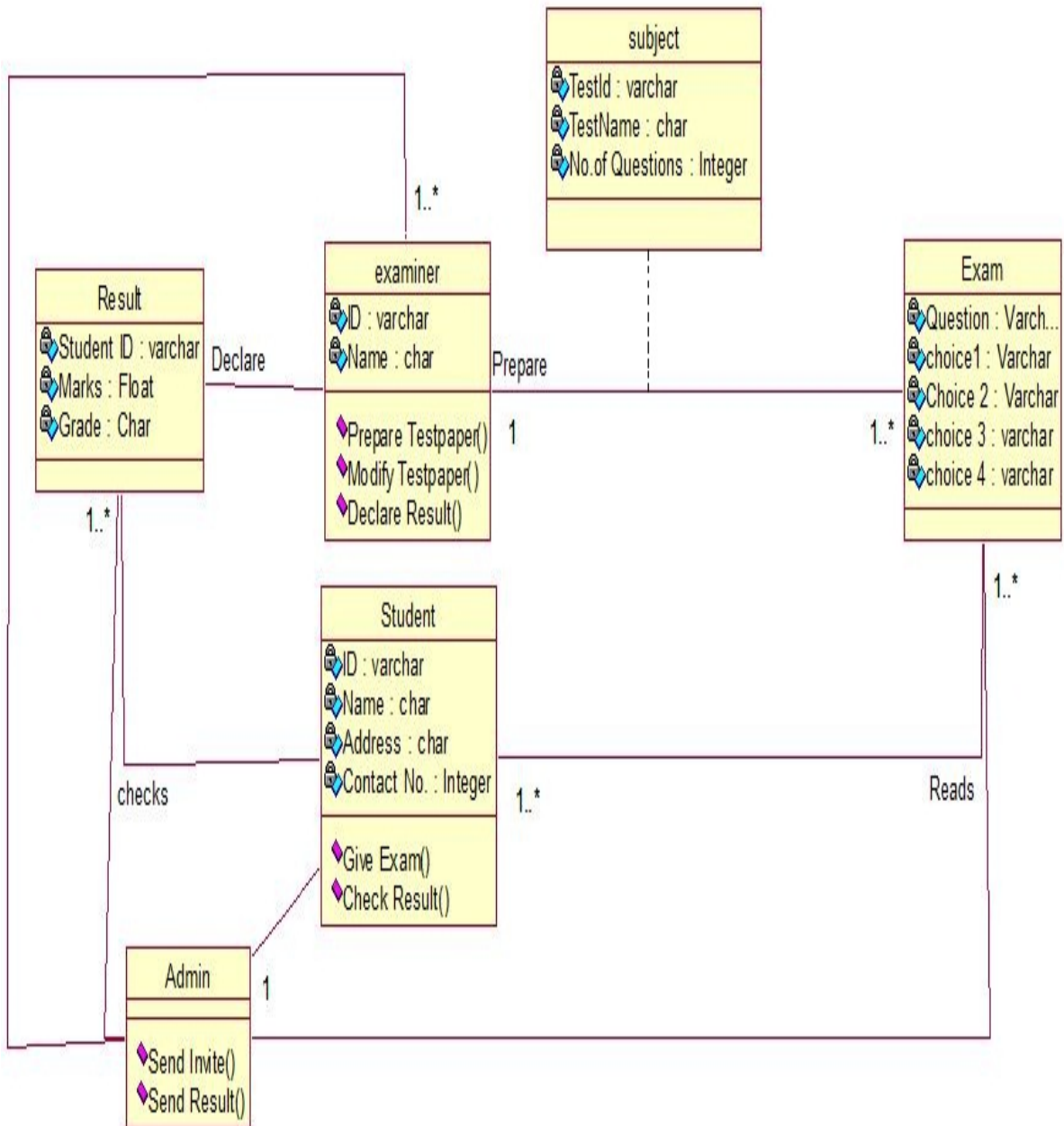


ADMIN LOGIN

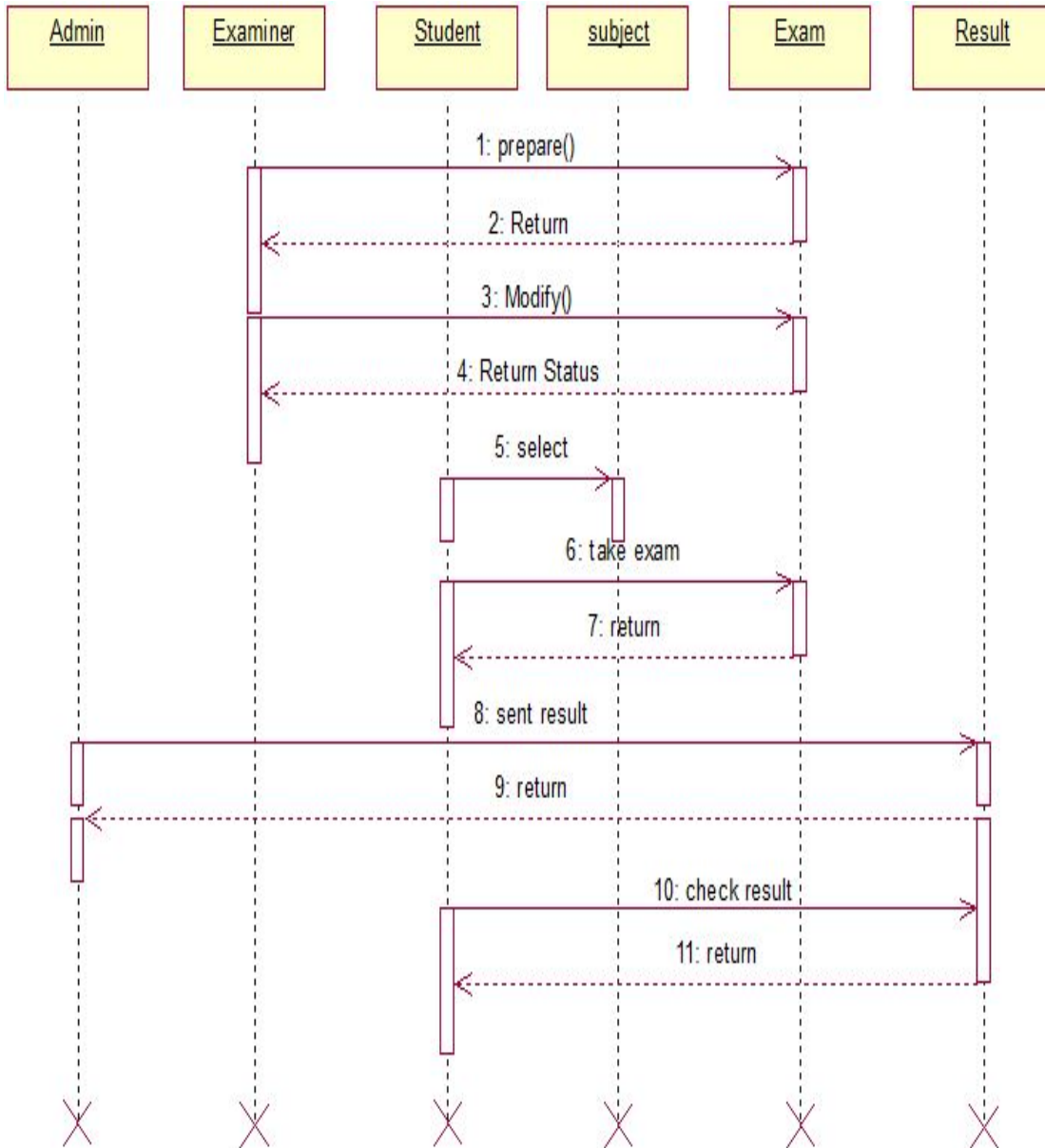




CLASS DIAGRAM FOR ONLINE EXAMINATION SYSTEM



SEQUENCE DIAGRAM FOR ONLINE EXAMINATION SYSTEM



4. IMPLEMENTATION

Implementation is the stage of the project when the theoretical design is turned out into a working system. Thus it can be considered to be the most critical stage in achieving a successful new system and in giving the user, confidence that the new system will work and be effective. The implementation stage involves careful planning, investigation of the existing system and its constraints on implementation, designing of methods to achieve changeover and evaluation of changeover methods.

MODULE DESCRIPTION:

















































- a. **ADMIN MODULE:** The admin has to register in Online Examination System. There are 5 different sub modules are implemented.
 - Can print individual result or group results.
 - **Login:** This module helps Admin to log into Online Examination System by using valid E-mail ID and password, if it is correct he can view the home page.
 - **Manage Category, Subjects And Exams:** This module manages the category such as subject related to as programming or sports, subjects such as C, C++, JAVA, cricket, Hockey etc.
 - **Add Category, Subjects And Exams:** This module is used to add category or subjects and it can active and de-active the exams.
 - **Can Check The Users:** This module helps admin to check different users in OES by giving valid username.
 - **Can Print Individual Result Or Group Results:** In this module the admin can print the individual result or group results.

- b. **USER MODULE:** User module helps Alumni to register in AIS. Admin maintains the information in AIS. There are 6 sub modules that are implemented.
 - **Registration:** This module helps user to register into OES by giving details such as full name, Hall ticket number, E-mail and so on. If it is successful the candidate can login successfully.

- **Login:** By this module user has to log into OES by giving valid E-mail ID and password which is authenticated by the admin. If it is valid user get login into his/her home page.
- **Change Password:** In this module the user can modify his/her password.
- **Select The Exam:** In this module user has to select the type of the exam.
- **Take The Exam:** This module helps user to take the type of exam such as sports or programming.
- **Submit Exam:** The candidate has submitted the exam after completion of the exam.
- **View the Result:** The candidate can view the result. This result can be viewed in pie diagrams and saved in the pdf formats.

5. TABLES

The screenshot shows the phpMyAdmin interface for the 'oes' database on localhost. The 'Structure' tab is active, displaying a table structure view. The 'oes_exams' table is selected and highlighted in green. The table structure is as follows:

Table	Action	Records ¹	Type	Collation	Size	Overhead
oes_admin	     	1	InnoDB	utf8_general_ci	48.0 KiB	-
oes_category	     	5	InnoDB	utf8_general_ci	32.0 KiB	-
oes_exams	     	4	InnoDB	utf8_general_ci	32.0 KiB	-
oes_exams_subjects	     	10	InnoDB	utf8_general_ci	48.0 KiB	-
oes_questions_bank	     	42	InnoDB	utf8_general_ci	64.0 KiB	-
oes_subjects	     	7	InnoDB	utf8_general_ci	48.0 KiB	-
oes_test_results	     	53	InnoDB	utf8_general_ci	48.0 KiB	-
oes_users	     	4	InnoDB	utf8_general_ci	32.0 KiB	-
8 table(s)	Sum	126	MyISAM	latin1_swedish_ci	352.0 KiB	0 B

At the bottom of the table structure view, there are controls for 'Check All / Uncheck All' and a 'With selected:' dropdown menu.

ADMIN

localhost ▶ oes ▶ oes_admin

Showing rows 0 - 0 (~1 total, Query took 0.0006 sec)

```
SELECT *
FROM `oes_admin`
LIMIT 0 , 30
```

Show : 30 row(s) starting from record # 0 in horizontal mode and repeat headers after 100 cells

+ Options

	admin_id	adm_full_name	adm_username	adm_pass	adm_email
<input type="checkbox"/>	1	RAJU	admin	c33367701511b4f6020ec61ded352059	raju.nestham@gmail.com

Check All / Uncheck All With selected:

CATEGORY

localhost ▶ oes ▶ oes_category

Showing rows 0 - 4 (~5 total, Query took 0.0008 sec)

```
SELECT *
FROM `oes_category`
LIMIT 0 , 30
```

Show : 30 row(s) starting from record # 0 in horizontal mode and repeat headers after 100

Sort by key: None

+ Options

	ct_id	ct_name	active
<input type="checkbox"/>	2	CAMPUS EXAM-2	yes
<input type="checkbox"/>	3	CAMPUS EXAM-3	yes
<input type="checkbox"/>	4	CAMPUS EXAM-1	yes
<input type="checkbox"/>	6	CAMPUS EXAM-4	yes
<input type="checkbox"/>	7	Games	yes

EXAMS

Database: oes (8)

Showing rows 0 - 3 (~4¹ total, Query took 0.0005 sec)

```
SELECT *
FROM `oes_exams`
LIMIT 0, 30
```

Show : 30 row(s) starting from record # 0
in horizontal mode and repeat headers after 100 cells
Sort by key: None

	ex_id	ex_name	ex_duration	active
<input type="checkbox"/>	2	CAMPUS EXAM-1	60	yes
<input type="checkbox"/>	7	CAMPUS EXAM-2	55	yes
<input type="checkbox"/>	8	CAMPUS EXAM-3	40	yes
<input type="checkbox"/>	9	CAMPUS EXAM-4	40	yes

Check All / Uncheck All With selected:

Show : 30 row(s) starting from record # 0
in horizontal mode and repeat headers after 100 cells

EXAMS_SUBJECTS

Database: oes (8)

Showing rows 0 - 9 (~10¹ total, Query took 0.0006 sec)

```
SELECT *
FROM `oes_exams_subjects`
LIMIT 0, 30
```

Show : 30 row(s) starting from record # 0
in horizontal mode and repeat headers after 100 cells
Sort by key: None

	es_id	es_ex_id	es_sb_id
<input type="checkbox"/>	113	7	11
<input type="checkbox"/>	114	7	20
<input type="checkbox"/>	115	7	19
<input type="checkbox"/>	116	2	10
<input type="checkbox"/>	117	2	18
<input type="checkbox"/>	118	2	17
<input type="checkbox"/>	119	8	18
<input type="checkbox"/>	120	8	17
<input type="checkbox"/>	121	9	11

QUESTIONS

localhost ▶ oes ▶ oes_questions_bank

Showing rows 0 - 29 (~42¹ total, Query took 0.0010 sec)

```
SELECT *
FROM `oes_questions_bank`
LIMIT 0 , 30
```

Profiling [Edit] [Explain SQL] [Create PHP Code] [Refresh]

Show: 30 row(s) starting from record # 30

in horizontal mode and repeat headers after 100 cells

Sort by key: None

+ Options

	qb_id	qb_subject_id	qb_question	qb_option1	qb_option2
<input type="checkbox"/>	174	11	a:2: {s:4:"type";s:4:"text";s:7:"content";s:42:"whi...	a:2: {s:4:"type";s:4:"text";s:7:"content";s:7:"220...	a:2: {s:4:"type";s:4:"text";s:7:"content";s:7:"246...
<input type="checkbox"/>	175	11	a:2: {s:4:"type";s:4:"text";s:7:"content";s:160:"M...	a:2: {s:4:"type";s:4:"text";s:7:"content";s:22:"M...	a:2: {s:4:"type";s:4:"text";s:7:"content";s:51:"If...
<input type="checkbox"/>	199	17	a:2: {s:4:"type";s:4:"text";s:7:"content";s:660:"Un...	a:2: {s:4:"type";s:4:"text";s:7:"content";s:14:"Bab...	a:2: {s:4:"type";s:4:"text";s:7:"content";s:15:"Ees...
<input type="checkbox"/>	201	17	a:2: {s:4:"type";s:4:"text";s:7:"content";s:81:"Loo...	a:2: {s:4:"type";s:4:"text";s:7:"content";s:3:"A16...	a:2: {s:4:"type";s:4:"text";s:7:"content";s:2:"G4"...
<input type="checkbox"/>	202	17	a:2: {s:4:"type";s:4:"text";s:7:"content";s:49:"If...	a:2: {s:4:"type";s:4:"text";s:7:"content";s:5:"PEAS...	a:2: {s:4:"type";s:4:"text";s:7:"content";s:5:"ASPE...
<input type="checkbox"/>	203	17	a:2: {s:4:"type";s:4:"text";s:7:"content";s:278:"A...	a:2: {s:4:"type";s:4:"text";s:7:"content";s:11:"Il...	a:2: {s:4:"type";s:4:"text";s:7:"content";s:11:"Ill...

SUBJECTS

localhost ▶ oes ▶ oes_subjects

Showing rows 0 - 6 (~7¹ total, Query took 0.0007 sec)

```
SELECT *
FROM `oes_subjects`
LIMIT 0 , 30
```

Show: 30 row(s) starting from record # 0

in horizontal mode and repeat headers after 100 cells

Sort by key: None

+ Options

	sb_id	sb_name	sb_category_id	sb_duration	active
<input type="checkbox"/>	10	Apptitude-1	4	20	yes
<input type="checkbox"/>	11	Apptitude-2	3	25	yes
<input type="checkbox"/>	17	Reasoning-1	6	20	yes
<input type="checkbox"/>	18	Computers Programming-1	6	20	yes
<input type="checkbox"/>	19	Reasoning-2	2	15	yes
<input type="checkbox"/>	20	Computers Programming-2	2	15	yes
<input type="checkbox"/>	21	chess	7	3	yes

Check All / Uncheck All With selected:

RESULTS

phpMyAdmin localhost ▶ oes ▶ oes_test_results

Showing rows 0 - 29 (~53¹ total, Query took 0.0009 sec)

```
SELECT *
FROM `oes_test_results`
LIMIT 0 , 30
```

Profiling [Edit] [Explain SQL] [Create PHP Code]

Show: 30 row(s) starting from record # 30

in horizontal mode and repeat headers after 100 cells

Sort by key: None

+ Options

	tr_id	tr_user_id	tr_ex_id	tr_total_question	tr_correct_answer	tr_wrong_answer	tr_not_attempted	tr_time_taken	tr_exam_date
<input type="checkbox"/>	1	3	2	15	8	4	3	00:04:54	2016-02-10 17:48:46
<input type="checkbox"/>	2	3	2	15	3	5	7	00:03:00	2016-02-10 18:24:11
<input type="checkbox"/>	3	5	2	15	0	0	15	00:00:04	2016-02-15 21:24:54
<input type="checkbox"/>	4	5	2	15	0	0	15	00:00:03	2016-02-15 21:29:03
<input type="checkbox"/>	5	4	2	15	0	0	15	00:00:03	2016-02-15 21:29:43
<input type="checkbox"/>	6	5	2	15	0	0	15	00:00:03	2016-02-15 21:41:37
<input type="checkbox"/>	7	0	0	0	0	0	0	00:00:00	2016-03-07 09:39:10
<input type="checkbox"/>	8	0	0	0	0	0	0	00:00:00	2016-03-07 09:39:28
<input type="checkbox"/>	9	0	0	0	0	0	0	00:00:00	2016-03-07 09:39:36

USERS

phpMyAdmin localhost ▶ oes ▶ oes_users

Showing rows 0 - 3 (~4¹ total, Query took 0.0007 sec)

```
SELECT *
FROM `oes_users`
LIMIT 0 , 30
```

Profiling [Edit] [Explain SQL] [Create PHP Code] [Refresh]

Show: 30 row(s) starting from record # 0

in horizontal mode and repeat headers after 100 cells

Sort by key: None

+ Options

	user_id	user_fullname	user_hallticket	user_email	user_pass	user_photo	date_joined
<input type="checkbox"/>	7	raju	123456	raju@gmail.com	e10adc3949ba59abbe56e057f20f883e	834034_1457322837.jpg	2016-03-06 22:23:57
<input type="checkbox"/>	16	shilpa kotte	14016234	shilpakotte@gmail.com	25d55ad283aa400af464c76d713c07ad	47623_1479374544.	2016-11-17 14:52:24
<input type="checkbox"/>	17	meghana innani	13016T0961	meghanainnani.guddu@gmail.com	6ebe76c9fb411be97b3b0d48b791a7c9	446705_1493193031.	2017-04-26 13:20:31
<input type="checkbox"/>	18	VNihanika	14016t1038l	nihanika123@gmail.com	35e521cb47da9a075cdbc89f2d0be087	979772_1493205863.	2017-04-26 16:54:23

Check All / Uncheck All With selected:

Show: 30 row(s) starting from record # 0

in horizontal mode and repeat headers after 100 cells

6. SAMPLE CODE

USER REGISTRATION:

```
<div id="createAccountForm" style="display: <?php echo isset($_GET["err"]) ? "block" : "none" ?>;">
    <form class="form-horizontal" method="post" id="ca" name="ca" action="<?php echo generate_site_link("login_auth");
?>" enctype="multipart/form-data">
    <input type="hidden" value="ca" name="mode">
    <fieldset>
    <div class="form-group col-12 center">
        <label for="username" class="control-label"><span class="required">*</span>Full Name: </label>
        <div class="input-group">
            <span class="input-group-addon"><span class="glyphicon glyphicon-user"></span></span>
            <input type="text" class="form-control" name="username" autocomplete="off" >
        </div>
        <div id="username-error" class="help-inline cont" style="clear: both;color: #F00;"></div>
        <div class="padding10"></div>
        <label for="user_hallticket" class="control-label"><span class="required">*</span>Hall Ticket No.: </label>
        <div class="input-group">
            <span class="input-group-addon"><span class="fa fa-envelope"></span></span>
            <input type="text" class="form-control" name="user_hallticket" id="user_hallticket" autocomplete="off" >
        </div>
        <div id="user_hallticket-error" class="help-inline cont" style="clear: both;color: #F00;"></div>
        <div class="padding10"></div>
        <label for="user_email" class="control-label"><span class="required">*</span>Email: </label>
        <div class="input-group">
            <span class="input-group-addon"><span class="fa fa-envelope"></span></span>
            <input type="text" class="form-control" name="user_email" id="user_email" autocomplete="off" >
        </div>
        <div id="user_email-error" class="help-inline cont" style="clear: both;color: #F00;"></div>
        <div class="padding10"></div>
        <label for="password1" class="control-label" ><span class="required">*</span>Password: </label>
        <div class="clearfix"></div>
```



```

<div class="input-group">
  <span class="input-group-addon"><span class="glyphicon glyphicon-lock"></span></span>
  <input type="password" class="form-control" name="password1" id="password1" autocomplete="off">
</div>
<div id="password1-error" class="help-inline cont" style="clear: both;color: #F00;"></div>
<div class="padding10"></div>
<label for="password1" class="control-label" ><span class="required">*</span>Confirm Password: </label>
<div class="clearfix"></div>
<div class="input-group">
  <span class="input-group-addon"><span class="glyphicon glyphicon-lock"></span></span>
  <input type="password" class="form-control" name="password2" id="password2" autocomplete="off">
</div>
<div class="clearfix"></div>
<div id="password2-error" class="help-inline cont" style="clear: both;color: #F00;"></div>
<div class="padding10"></div>
<button class="btn btn-success loginbutton" type="submit">Create Account</button>
<div class="padding5"></div>
<div class="pull-left"><a href="javascript:void(0);"
onclick="$('#createAccountForm').hide('slow');$('#loginForm').show('slow');" class="text-danger" style="font-size:
15px;">Back to login</a> </div>
</div>

```

USER LOGIN:

```

<div class="clearfix"></div>
<div class="row">
  <div class="col-6 center">
    <div class="well well-lg">
      <div id="loginForm" style="display: <?php echo isset($_GET["err"]) ? "none" : "block" ?>;">
        <form class="form-horizontal" method="post" id="form1" name="form1" action="<?php echo
generate_site_link("login_auth"); ?>">
          <input type="hidden" value="login" name="mode">
          <fieldset>
            <div class="form-group col-12 center">
              <label for="username" class="control-label"><span class="required">*</span>Email: </label>

```

```

<div class="input-group">
  <span class="input-group-addon"><span class="glyphicon glyphicon-user"></span></span>
  <input type="text" class="form-control" name="u_email" id="u_email" autocomplete="off" >
</div>
<div><span for="u_email" generated="true" class="help-inline"></span></div>
<div class="padding10"></div>
<label for="u_pass" class="control-label"><span class="required">*</span>Password: </label>
<div class="input-group">
  <span class="input-group-addon"><span class="glyphicon glyphicon-lock"></span></span>
  <input type="password" class="form-control" name="u_pass" id="u_pass" autocomplete="off" >
</div>
<div><span for="u_pass" generated="true" class="help-inline"></span></div>
<div class="padding10"></div>
<button class="btn btn-success loginbutton" type="submit">Login</button>
<div class="padding5 clearfix"></div>
  <span class="pull-left"><a href="javascript:void(0);"
onclick="$('#loginForm').hide('slow');$('#createAccountForm').show('slow');" class="text-primary" style="font-size:
15px;">New User? Signup</a></span>
</div>

```

ADMIN LOGIN:

```

<div class="page-header">
  <h1>Welcome to Admin Panel</h1>
</div>
</div>
</div>
<?php if ($ERROR_TYPE <> "") { ?>
  <div class="col-6 center">
    <div class="alert alert-<?php echo $ERROR_TYPE; ?>">
      <button data-dismiss="alert" class="close" type="button">×</button>
      <?php echo $ERROR_MSG; ?>
    </div>
  </div>
</div>
<?php } ?>
<div class="clearfix"></div>

```

```

<div class="row">
  <div class="col-6 center">
    <div class="well well-lg">
      <form class="form-horizontal" method="post" id="form1" name="form1" action="<?php echo
generate_admin_link("login_auth"); ?>">
        <input type="hidden" value="login" name="mode">
        <fieldset>
          <div class="form-group col-12 center">
            <div class="input-group">
              <span class="input-group-addon"><span class="glyphicon glyphicon-user"></span></span>
              <input type="text" class="form-control" name="username" autocomplete="off" required >
            </div>
            <div class="padding10"></div>
            <div class="input-group">
              <span class="input-group-addon"><span class="glyphicon glyphicon-lock"></span></span>
              <input type="password" class="form-control" name="userpass" autocomplete="off" required >
            </div>
            <div class="padding10"></div>
            <button class="btn btn-success loginbutton" type="submit">Login</button>
            <div class="padding5"></div>
            <div class="small pull-right"><a href="<?php echo generate_admin_link("forgot_password"); ?>" class="text-danger"
style="font-size: 15px;">Forgot Password</a> </div>
          </div>
        </fieldset>
      </form>
    </div>
  </div>
</div>

```

7. TESTING

Testing is process of confirming that a program or systems does what it is proposed off. Testing is the only way to assure the quality of s/w and it is an umbrella activity rather than a separate phase. This is an activity to be performed in parallel with the s/w effort and one that consists of its own phases of analysis, design, implementation, execution and maintenance.

Testing Strategy:

1. **Unit Testing:** This testing method considers a module as single unit and checks the unit at interfaces and communicates with other modules rather than getting into details at statement level. Here the module will be treated as BLACKBOX, which will take some inputs and generate output. Outputs for a given set of input combination are pre-calculated and are generated by the module.
2. **Integration Testing:** Here all the pre-tested individual modules will be assembled to create a larger system and tests are carried out at system level to make sure that all modules are working in synchronous with each other. This testing methodology helps in making sure that all modules which are running perfectly when checked individually and are also running cohesion with other modules. For this testing we create test-cases to check all modules once and then a generated test combination of test paths throughout the system to make sure that no path is making its way into chaos.
3. **Validation Testing:** Testing is major quality control measure employed during software development. Its basic function is to detect errors. Sub functions when combined may not produce than it is desired. Global data structures can represent the problems. Integrated testing is a systematic technique for constructing the program structure while conducting the tests. To uncover errors that is associated with interfacing the objective is to make test modules and built a program structure. That has been detected by design. In a non-incremental integration all the modules are combined in advance and the program is tested as a whole. Here error will appear in an end-less loop function. In incremental

testing the program is constructed and tested in small segments where the errors are isolated and corrected.

4. **Acceptance Testing:** It involves planning and execution of functional tests, performance tests and stress tests in order to demonstrate that the implemented system satisfies its requirements. Tools of special importance during acceptance testing include: Testing coverage analyzer-records the control paths followed for each test case. Timing analyzer-also called a profiler, reports the time spent in various regions of the code areas to concentrate on to improve system performance. Coding standards-static analyzers and standard checkers are used to inspect code for deviations from standards and guidelines.

Testing means quality test. Testing is a process of executing a program with the intent of finding error. A good test case is one that has a high probability of finding an as yet undiscovered error. Any engineering product can be tested in one of the two ways. Knowing the specific function that a product has been designed to perform, test can be conducted that demonstrate each function is fully operational. This approach is called 'BLACK BOX TESTING'

Knowing the internal working of the product, test can be conducted to ensure that "all gears mesh", that is, that internal operation of the product performs according to specification and all internal components have been adequately exercised. This approach is called "WHITE BOX TESTING". These approaches provide a mechanism that can help to ensure the completeness of tests and provide the highest likelihood for uncovering errors in s/w. The goals of verification and validation are to access and improve the quality of work products generated during development and modification of s/w. these are 2 types of verifications namely (1) life-cycle verification (2) formal verification.

Validation is the process of evaluating s/w at the end of s/w development process. Quality assurance is a planned and systematic pattern of action necessary to provide adequate confidence that the item conforms to the technical requirement. Walkthroughs are sessions where the material being examined is examined is presented by a review and evaluated by a team of

reviewers. Inspection involves assessing the s/w life cycle and improving the quality of work products. Life –cycle verification is the process of determining the degree to which the work products of a given phase of the development cycle fulfill the specification established during prior phases. Formal verification is a rigorous mathematical demonstration that source code confirms to its specification. High quality can be achieved through testing of source code alone. Although a program should be totally free of errors, this seldom the case for large s/w products. There are 3 major categories of s/w error.

1. Requirement errors
2. Design errors
3. Implementation errors

TCD (Test Case Document):

Test Case Document Contains

1. **Test scope:** Test coverage is provided for the screen “Academic status entry” form of a student module of university management system application
Areas of the application to be tested
2. **Test Scenario:** When the office personals use this screen for the marks entry, calculate the status details, saving the information on student’s basis and quit the form.
3. **Test Procedure:** The procedure for testing this screen is planned in such a way that the data entry, status calculation functionality, saving and quitting operations are tested in terms of GUI testing, Positive testing, Negative testing using the corresponding GUI test cases, Positive test cases, Negative test cases respectively.

8. OUTPUT SCREENS

ADMIN MODULE

ADMIN LOGIN PAGE

Welcome to Admin Panel

[Forgot Password](#)

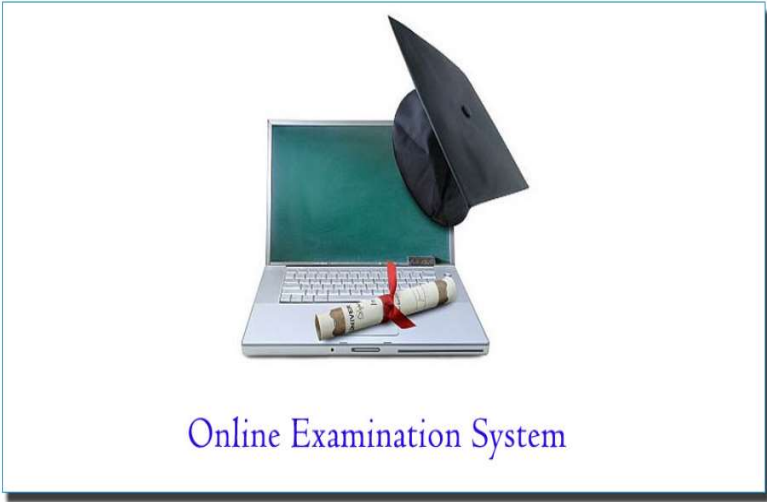
LOGIN

FIG: 1

ADMIN HOMEPAGE

Home Modules Users Exams Results admin

Admin Dashboard



Online Examination System

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Activate Windows
Go to Settings to activate Windows.

FIG: 2

MANAGE CATEGORY

Category Listing

Category Name	Status	Action
CAMPUS EXAM-1	Active	Edit Delete
CAMPUS EXAM-2	Active	Edit Delete
CAMPUS EXAM-3	Active	Edit Delete
CAMPUS EXAM-4	Active	Edit Delete

1

FIG: 3 we can manage different categories

ADD CATEGORY

Add category

*Category Name:

*Status: Active

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Activate Windows
Go to Settings to activate Windows.

FIG: 4 we can add different categories

CATEGORY SUBMISSION

Home Modules Users Exams Results admin

Category Listing

Category has been added successfully. x

Category Listing

Category Name	Status	Action
CAMPUS EXAM-1	Active	Edit Delete
CAMPUS EXAM-2	Active	Edit Delete
CAMPUS EXAM-3	Active	Edit Delete
CAMPUS EXAM-4	Active	Edit Delete
Games	Active	Edit Delete

1

FIG: 5 category is added successfully

MANAGE SUBJECTS

Home Modules Users Exams Results admin

Subjects Listing

Subjects Listing

Subject Name	Category	Duration	Status	Action
Apptitude-1	CAMPUS EXAM-1	20 mins	Active	Manage Questions Edit Delete
Apptitude-2	CAMPUS EXAM-3	25 mins	Active	Manage Questions Edit Delete
Computers Programming-1	CAMPUS EXAM-4	20 mins	Active	Manage Questions Edit Delete
Computers Programming-2	CAMPUS EXAM-2	15 mins	Active	Manage Questions Edit Delete
Reasoning-1	CAMPUS EXAM-4	20 mins	Active	Manage Questions Edit Delete
Reasoning-2	CAMPUS EXAM-2	15 mins	Active	Manage Questions Edit Delete

1

FIG: 6 we can manage different subjects

ADD SUBJECT

Home Modules Users Exams Results admin

Add Subjects

Add Subjects

*Subject Name: chess

*Category: Games

*Duration: 3 MINUTES

*Status: Active

Submit

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Activate Windows
Go to Settings to activate Windows.

FIG: 7 we can add different subjects

SUBJECT SUBMISSION

Home Modules Users Exams Results admin

Subjects Listing

Subject has been added successfully.

Subjects Listing

Subject Name	Category	Duration	Status	Action
Apptitude-1	CAMPUS EXAM-1	20 mins	Active	Manage Questions Edit Delete
Apptitude-2	CAMPUS EXAM-3	25 mins	Active	Manage Questions Edit Delete
chess	Games	3 mins	Active	Manage Questions Edit Delete
Computers Programming-1	CAMPUS EXAM-4	20 mins	Active	Manage Questions Edit Delete
Computers Programming-2	CAMPUS EXAM-2	15 mins	Active	Manage Questions Edit Delete
Reasoning-1	CAMPUS EXAM-4	20 mins	Active	Manage Questions Edit Delete
Reasoning-2	CAMPUS EXAM-2	15 mins	Active	Manage Questions Edit Delete

FIG: 8 subjects are added successfully

MANAGE EXAM

Exams Listing

Exam Name	Duration	Status	Action
CAMPUS EXAM-1	60 Mins	Active	Edit Delete
CAMPUS EXAM-2	55 Mins	Active	Edit Delete
CAMPUS EXAM-3	40 Mins	Active	Edit Delete
CAMPUS EXAM-4	40 Mins	Active	Edit Delete

1

FIG: 9 list of different exams and managing them

ADD EXAM

Add Exam

*Exam Name:

*Status: Active

#	Subject
<input type="checkbox"/>	Apptitude-1 [Duration - 20 minutes]
<input type="checkbox"/>	Apptitude-2 [Duration - 25 minutes]
<input type="checkbox"/>	chess [Duration - 3 minutes]
<input type="checkbox"/>	Computers Programming-1 [Duration - 20 minutes]
<input type="checkbox"/>	Computers Programming-2 [Duration - 15 minutes]
<input type="checkbox"/>	Reasoning-1 [Duration - 20 minutes]
<input type="checkbox"/>	Reasoning-2 [Duration - 15 minutes]

Submit

FIG: 10 we can add different exams as per requirement

REGISTERED CANDIADTES

Home Modules Users Exams Results admin

Users Listing

Users Listing

Name	Hall Ticket No.	Email ID	Date Joined
VNiharika	14016t1038l	niharika123@gmail.com	26th April 2017, 04:54:23 PM
meghana innani	13016T0961	meghanainnani.guddu@gmail.com	26th April 2017, 01:20:31 PM
shilpa kotte	14016234	shilpakotte@gmail.com	17th November 2016, 02:52:24 PM
raju	123456	raju@gmail.com	6th March 2016, 10:23:57 PM

1

FIG: 11 list of the candidates registered

WRITTEN EXAMS BY STUDENTS

Exams Results

Exams: Select Subject Name: Email: Q

Print all

Hall Ticket	User Name	Email ID	Exams Name	Total Marks (%)	Time Taken	Exam Date	Action
14016t1038l	VNiharika	niharika123@gmail.com	CAMPUS EXAM-1	4.55%	00:05:33	26/04/2017, 05:00:22 PM	Print
13016T0961	meghana innani	meghanainnani.guddu@gmail.com	CAMPUS EXAM-1	20.00%	00:01:01	26/04/2017, 01:21:44 PM	Print
14016234	shilpa kotte	shilpakotte@gmail.com	CAMPUS EXAM-2	5.26%	00:00:35	26/04/2017, 12:41:14 PM	Print
123456	raju	raju@gmail.com	CAMPUS EXAM-1	0.00%	00:00:11	13/03/2017, 02:23:42 PM	Print
123456	raju	raju@gmail.com	CAMPUS EXAM-1	0.00%	00:02:58	22/02/2017, 10:52:42 AM	Print

1 2 3 4 > Last

FIG: 12 exams results written by different users

MANAGE QUESTIONS

The screenshot shows a web application interface for managing exam questions. At the top, there is a navigation bar with links for Home, Modules, Users, and Exams Results, and a user profile for 'admin'. The main heading is 'Manage Questions'. Below this, there is a form titled 'Manage Questions' with the following fields: 'Subject Name' (C programming), 'Category' (Computer Programming), and 'Duration' (1 MINUTES). There are two buttons: 'Back to subjects' and 'Add new Question'. Below the form, there is a section titled 'Questions Added' showing two entries: 'Question #1' and 'Question #2'. At the bottom of the page, there is a footer with the text '2016 | Powered by Dept. of Computer Science & Engineering | All rights Reserved' and a watermark for 'Activate Windows'.

FIG: 13 we can manage exam questions

ADD QUESTIONS

The screenshot shows a web application interface for adding exam questions. At the top, there is a navigation bar with links for Home, Modules, Users, and Exams Results, and a user profile for 'admin'. The main heading is 'Manage Questions'. Below this, there is a form titled 'Manage Questions' with the following fields: 'Subject Name' (C programming), 'Category' (Computer Programming), and 'Duration' (1 MINUTES). There are two buttons: 'Back to subjects' and 'Add new Question'. Below the form, there is a section titled 'Questions Added' showing two entries: 'Question #1' and 'Question #2'. The form also includes a 'Question' field with a note: 'If you attach images, make sure the format is (.jpg, .jpeg, .bmp, .gif)'. There are four 'Option' fields (Option #1, Option #2, Option #3, Option #4) and an 'Answer' field. There is also a 'Sort Order' field with a note: 'Lowest number has highest precedence'. A 'Submit' button is located at the bottom of the form.

FIG: 14 we can add questions for different subjects

UPLOADING IMAGES AS QUESTIONS

The screenshot shows the 'Manage Questions' interface. At the top, there is a navigation bar with 'Home', 'Modules', 'Users', and 'Exams Results'. The user is logged in as 'admin'. The main form is titled 'Manage Questions' and contains the following fields:

- Subject Name:** C programming
- Category:** Computer Programming
- Duration:** 1 MINUTES
- Buttons:** Back to subjects, Add new Question
- Question:** Text input field with an 'Upload Image' button and a checkbox 'Image'.
- Option #1:** Text input field with an 'Upload Image' button and a checkbox 'Image'.
- Option #2:** Text input field with an 'Upload Image' button and a checkbox 'Image'.
- Option #3:** Text input field with an 'Upload Image' button and a checkbox 'Image'.
- Option #4:** Text input field with an 'Upload Image' button and a checked checkbox 'Image'.
- Answer:** Dropdown menu with '1' selected.
- Sort Order:** Input field with '1' and a note 'Lowest number has highest precedence'.
- Submit:** Button.

Below the form, there is a 'Questions Added' section showing 'Question #1' and 'Question #2'.

At the bottom, there is a footer: '2016 | Powered by Dept. of Computer Science & Engineering | All rights Reserved'.

FIG: 15 we can even upload images for questions

SEARCHING FOR INDIVIDUAL RESULT

The screenshot shows the 'Exams Results' interface. At the top, there is a search bar with 'Exams: Select Subject', 'Name:', and 'Email:' fields. Below the search bar, there is a 'Print all' button. The main content is a table with the following columns: Hall Ticket, User Name, Email ID, Exams Name, Total Marks (%), Time Taken, Exam Date, and Action. The table contains five rows of data. At the bottom, there is a pagination control showing '1 2 3 4 > Last'.

Hall Ticket	User Name	Email ID	Exams Name	Total Marks (%)	Time Taken	Exam Date	Action
14016t1038l	V.Niharika	niharika123@gmail.com	CAMPUS EXAM-1	4.55%	00:05:33	26/04/2017, 05:00:22 PM	Print
13016T0961	meghana innani	meghanainnani.guddu@gmail.com	CAMPUS EXAM-1	20.00%	00:01:01	26/04/2017, 01:21:44 PM	Print
14016234	shilpa kotte	shilpakotte@gmail.com	CAMPUS EXAM-2	5.26%	00:00:35	26/04/2017, 12:41:14 PM	Print
123456	raju	raju@gmail.com	CAMPUS EXAM-1	0.00%	00:00:11	13/03/2017, 02:23:42 PM	Print
123456	raju	raju@gmail.com	CAMPUS EXAM-1	0.00%	00:02:58	22/02/2017, 10:52:42 AM	Print

FIG: 16 viewing exam result for registered users

PRINTING OVERALL RESULT OF STUDENT

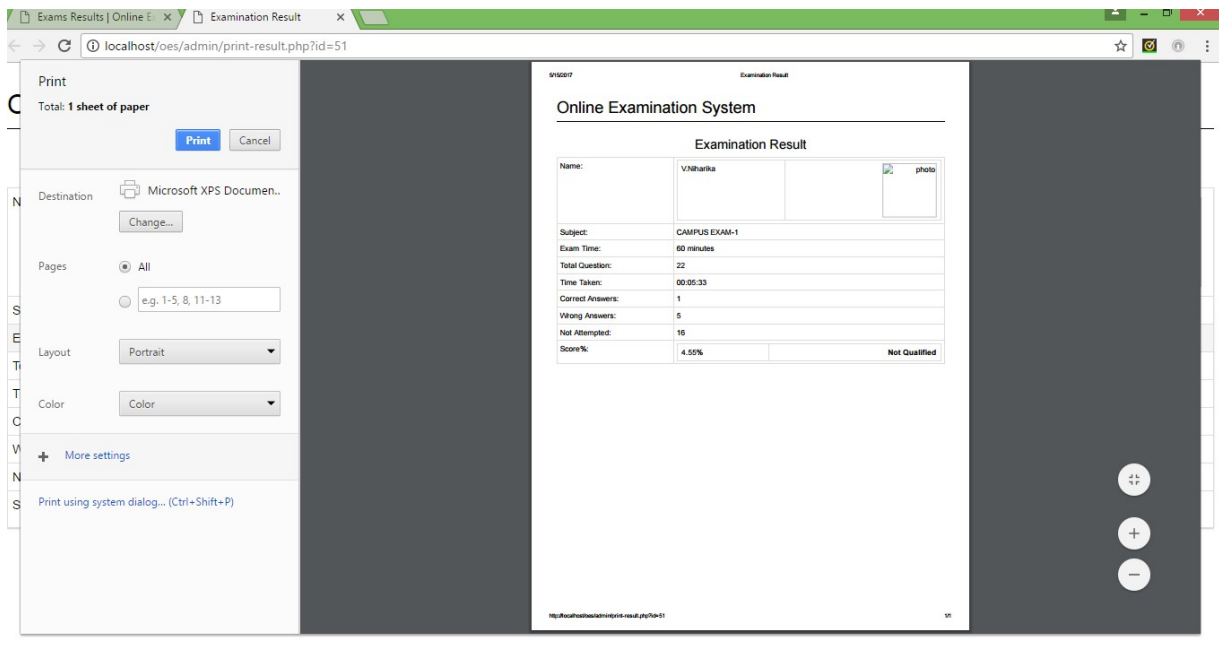


FIG: 17 printing result of a particular user

SEARCH BY SUBJECT RESULT

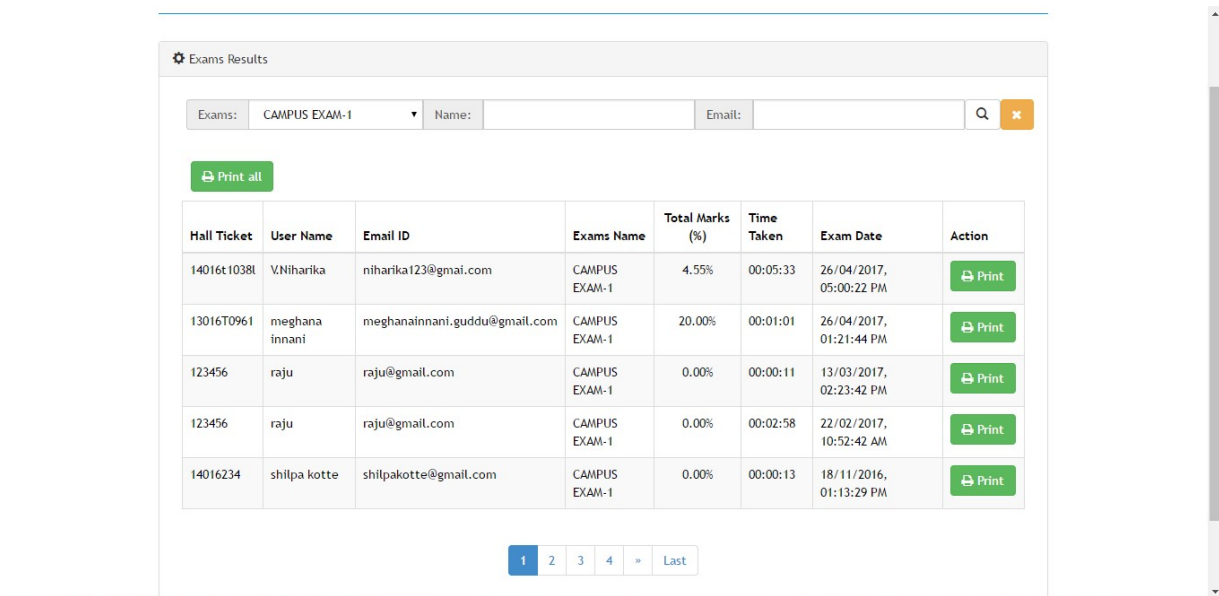


FIG: 18 we can view user's exams result of a particular subject

OVERALL RESULT OF ALL STUDENTS

The screenshot shows a web browser window with the URL `localhost/oes/admin/print-all-result.php`. On the left, there is a print dialog with the following settings:

- Print: Total: 2 sheets of paper. Buttons: Print, Cancel.
- Destination: Microsoft XPS Document. Button: Change...
- Pages: All, e.g. 1-5, 8, 11-13.
- Layout: Portrait.
- Color: Color.
- More settings: + More settings.
- Print using system dialog... (Ctrl+Shift+P)

The main content area displays the 'Online Examination System' results. The table below contains the data:

Hall Ticket	User Name	Email ID	Exam Name	Total Marks (%)	Time Taken	Exam Date
1401610381	V/Nharka	nharka123@gmail.com	CAMPUS EXAM-1	4.55%	00:05:33	26/04/2017
1301670961	meghana shree	meghanamani.guddu@gmail.com	CAMPUS EXAM-1	20.00%	00:01:01	26/04/2017
14016234	shilpa kotte	shilpakotte@gmail.com	CAMPUS EXAM-2	5.26%	00:00:35	26/04/2017
123456	raju	raju@gmail.com	CAMPUS EXAM-1	0.00%	00:00:11	13/03/2017
123456	raju	raju@gmail.com	CAMPUS EXAM-1	0.00%	00:02:58	22/02/2017
14016234	shilpa kotte	shilpakotte@gmail.com	CAMPUS EXAM-1	0.00%	00:00:13	18/11/2016
123456	raju	raju@gmail.com	CAMPUS EXAM-1	3.33%	00:00:09	07/11/2016
123456	raju	raju@gmail.com	CAMPUS EXAM-1	0.00%	00:00:23	28/09/2016
123456	raju	raju@gmail.com	CAMPUS EXAM-1	6.67%	00:00:36	20/07/2016
123456	raju	raju@gmail.com	CAMPUS EXAM-1	3.33%	00:00:25	20/07/2016
123456	raju	raju@gmail.com	CAMPUS EXAM-1	3.33%	00:00:11	18/07/2016
123456	raju	raju@gmail.com	CAMPUS EXAM-1	3.33%	00:00:44	14/07/2016
123456	raju	raju@gmail.com	CAMPUS EXAM-1	30.00%	00:01:17	06/07/2016

**FIG: 19 overall results of all registered students
STUDENT MODULE**

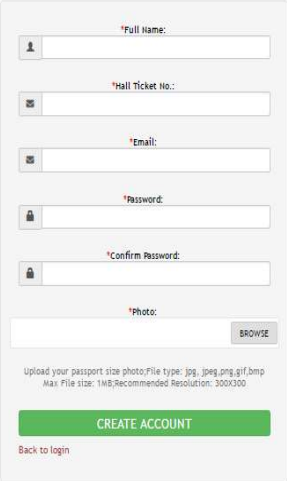
CANDIDATE HOMEPAGE

The screenshot shows the candidate homepage with the following elements:

- Navigation bar: Home, Choose Exams, Welcome.
- Header: Welcome to Online Examination.
- Central graphic: A laptop with a graduation cap and a rolled-up diploma on top.
- Text: Online Examination System.
- Footer: 2016 | Powered by Dept. of Computer Science & Engineering | All rights Reserved. Activate Windows. Go to Settings to activate Windows.

FIG: 1

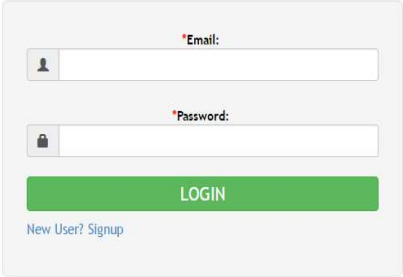
REGISGTRATION FOR NEW USER



The registration form is centered on the page. It features a blue header with 'Home' and 'Choose Exams' on the left, and 'Welcome' on the right. Below the header, the word 'Login' is underlined. The form itself is a light gray box with the following fields: 'Full Name' (with a person icon), 'Hall Ticket No.' (with an envelope icon), 'Email' (with an envelope icon), 'Password' (with a lock icon), and 'Confirm Password' (with a lock icon). Below these is a 'Photo' field with a 'BROWSE' button. A small text block below the photo field reads: 'Upload your passport size photo:File type: jpg, jpeg, png, gif, bmp. Max. File size: 1MB;Recommended Resolution: 300X300'. At the bottom of the form is a green 'CREATE ACCOUNT' button and a red link 'Back to login'. The footer contains '2016 | Powered by Dept. of Computer Science & Engineering | All rights Reserved' and 'Activate Windows Go to Settings to activate Windows.'

FIG: 2 registrations for users

LOGIN PAGE



The login page features a blue header with 'Home' and 'Choose Exams' on the left, and 'Welcome' on the right. Below the header, the word 'Login' is underlined. The login form is a light gray box with two fields: 'Email' (with a person icon) and 'Password' (with a lock icon). Below these fields is a green 'LOGIN' button and a blue link 'New User? Signup'. The footer contains '2016 | Powered by Dept. of Computer Science & Engineering | All rights Reserved' and 'Activate Windows Go to Settings to activate Windows.'

FIG: 3

STUDENT HOME PAGE AFTER LOGIN

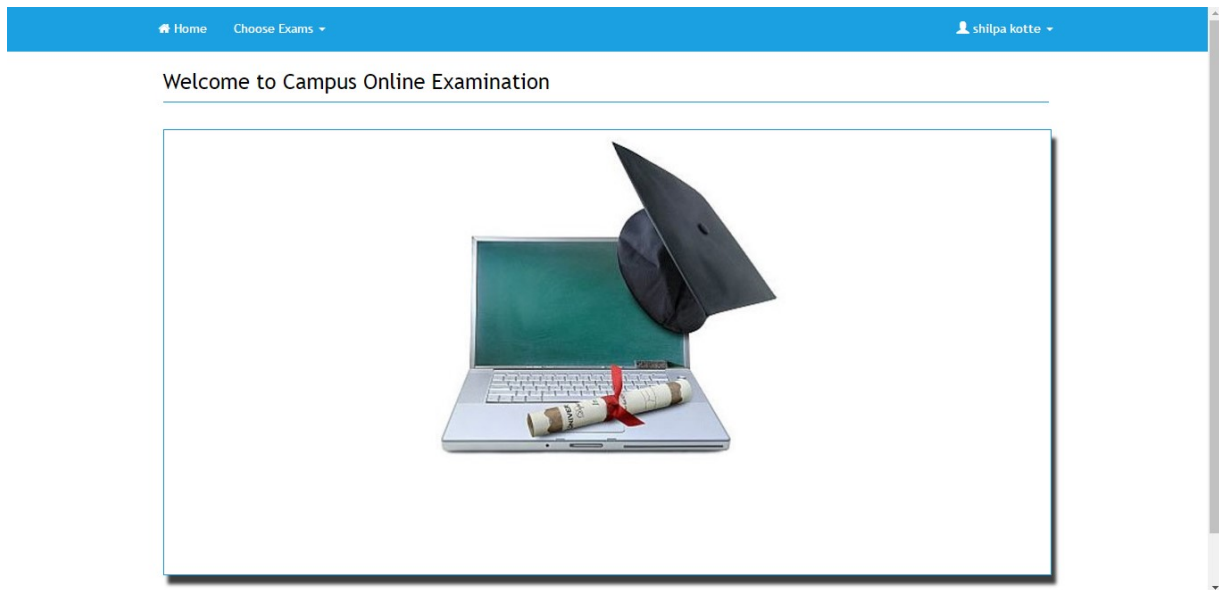


FIG:4

STARTING THE EXAM

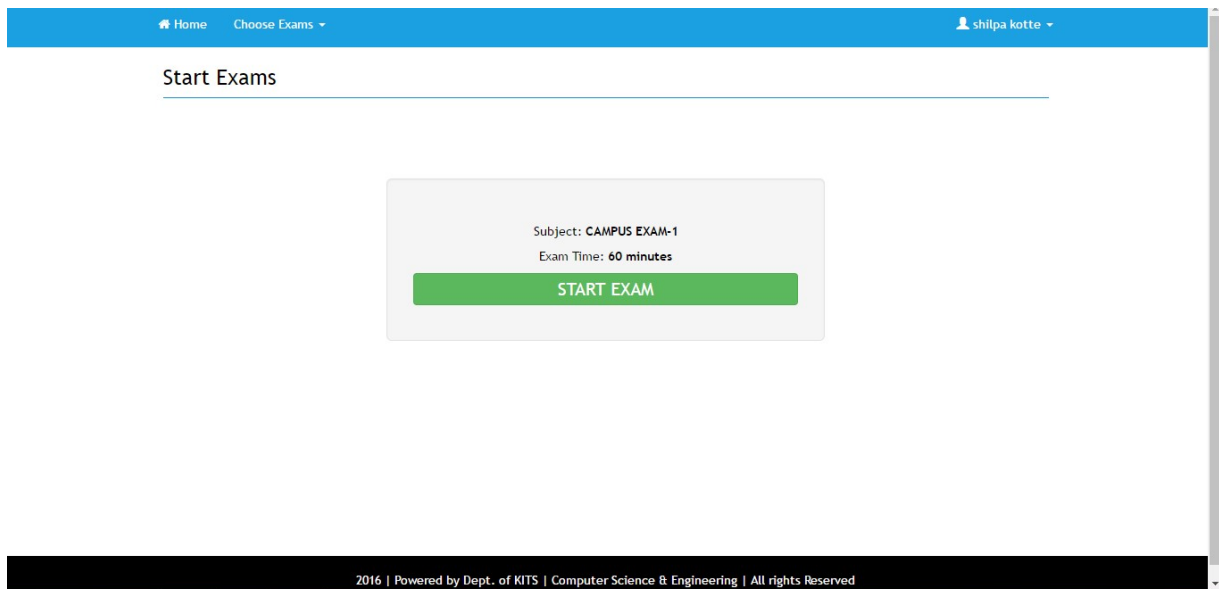


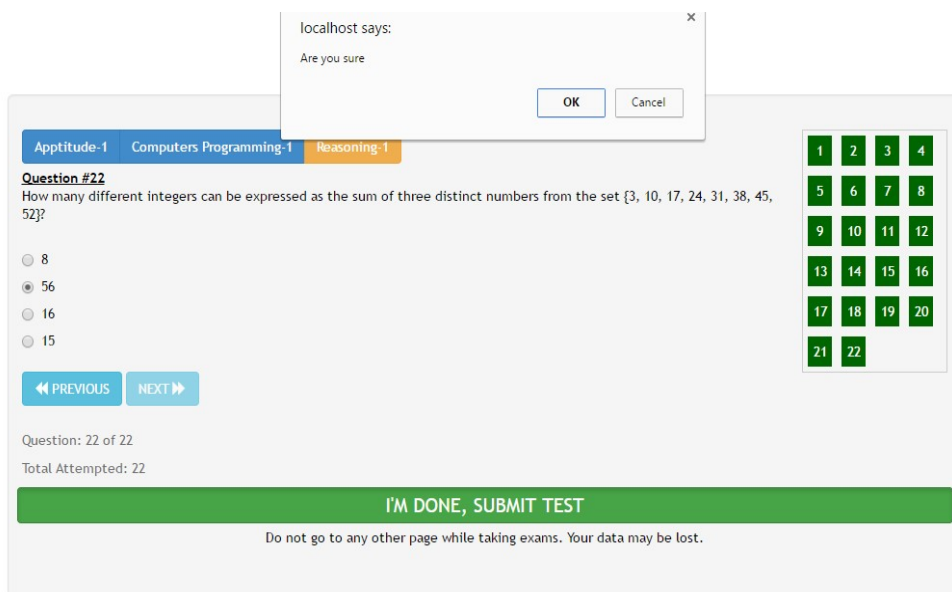
FIG: 5 selecting of exam and starting of exam

WRITING THE EXAM

The screenshot shows an online exam interface. At the top, there is a blue navigation bar with a home icon, the text "Home Choose Exams", and a user profile icon labeled "shilpa kotte". Below the navigation bar, the word "Exam" is displayed. A large digital timer shows 00 hours, 59 minutes, and 49 seconds. The main content area contains a question titled "Question #1" with the text "which of the following is not a leap year?". There are four radio button options: 700, 800, 1200, and 2000. To the right of the question is a numeric keypad with buttons for digits 1 through 22. Below the question, there are "PREVIOUS" and "NEXT" buttons. At the bottom of the main content area, it says "Question: 1 of 22" and "Total Attempted: 0". A green button at the very bottom says "I'M DONE, SUBMIT TEST".

FIG: 6 Attempting of exam

EXAM SUBMISSION



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FIG: 7 submitting of exam

VIEWING THE RESULT

Subject:	CAMPUS EXAM-1
Exam Time:	60 minutes
Total Question:	22
Time Taken:	00:04:08
Correct Answers:	12
Wrong Answers:	10
Not Attempted:	0
Score%:	54.55% [Qualified]

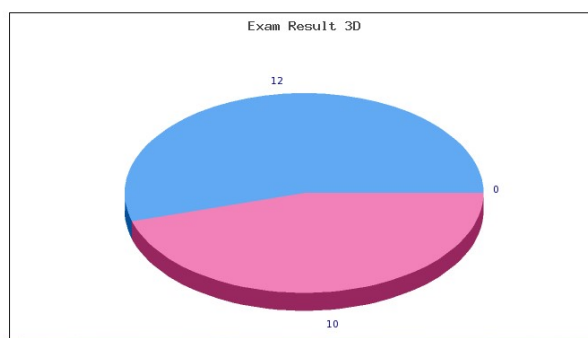


FIG: 8 viewing result of the user

PRINT THE RESULT

The image shows a PDF viewer interface with a print dialog on the left and a result page on the right. The print dialog includes options for destination, pages, color, paper size, scale, and options. The result page displays the following information:

Online Campus Examination

Result

Name:	shilpa kotte
Subject:	CAMPUS EXAM-1
Exam Time:	60 minutes
Total Question:	22
Time Taken:	00:04:08
Correct Answers:	12
Wrong Answers:	10
Not Attempted:	0
Score%:	54.55%

Qualified

Generated time: Monday 15th of May 2017 08:28:52 PM

FIG: 9 printing of result of user's result

DOWNLOAD THE RESULT

The screenshot shows a web application interface for viewing exam results. At the top, there is a blue navigation bar with 'Home' and 'Choose Exams' on the left, and a user profile 'shilpa kotte' on the right. Below the navigation bar, the page title is 'Campus Exam Result'. A green notification box states 'Your Exam data has been saved successfully.' Below this, a message says 'Thank you for taking Campus Examination.' A green button labeled 'Save as PDF' is positioned above a table of exam statistics. The table has two columns: a label and a value. At the bottom of the page, a PDF viewer is open, showing the file 'exam_result (3).pdf' and a 'Show all' button.

Home Choose Exams shilpa kotte

Campus Exam Result

Your Exam data has been saved successfully. x

Thank you for taking Campus Examination.

Save as PDF

Subject:	CAMPUS EXAM-1
Exam Time:	60 minutes
Total Question:	22
Time Taken:	00:04:08
Correct Answers:	12
Wrong Answers:	10
Not Attempted:	0
Score%:	54.55% [Qualified]

exam_result (3).pdf Show all X

FIG: 10 downloading the exam result

9. CONCLUSION AND FUTURE SCOPE

Online Examination System designed with the specific goal of reducing hard job of assessing the answers given by the candidates manually. Online Examination will reduce the huge work done by teachers, administrators and also students. Responses by the candidate will be checked automatically and instantly which reduces student anxiety. By using Online Examination System paper work is reduced. Online Examination System contains modules such as Admin/Examiner Module and Student Module. Online Examination System (OES) is a web application.

The key concept is to minimize the amount of paper and convert all forms of documentation to digital form. It can observe that the information required can be obtained with ease and accuracy in the computerized system. The user with minimum knowledge about computer can be able operate the system easily. The system also produces brief result required by the management.

From a proper analysis of positive points and constraints on the component, it can be safely concluded that the product is a highly efficient GUI based component. This application is working properly and meeting to all user requirements. This component can be easily plugged in many other systems.

Future scope:

Online Examination System has a lot of future scope. This system provides only some privileges to users. This project has wide scope to implement it in any University/Institution having multiple papers there.

Below is the list of few upgrades that can be done in near future.

1. Online certificates can be sent directly to the registered E-mail's.
2. New user upon registration into gets a message alert to the mobile.

10. BIBLIOGRAPHY

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4. www.google.com.
5. www.w3schools.com.