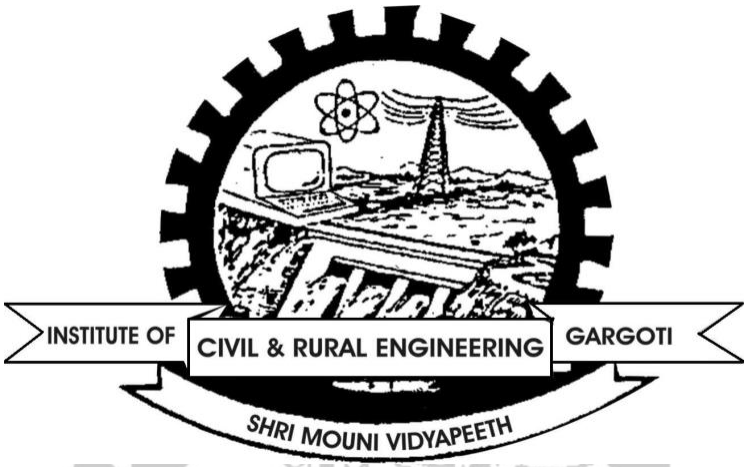
INSTITUTE OF CIVIL & RURAL ENGINEERING, GARGOTI.

A

PROJECT REPORT

ON



" Alumni Portal"

PROJECT MEMBERS

Miss. Mashalkar Prajakta Vilas

Miss. Sawant Harshada Umesh

Miss. Sawant Shreya Ramesh

Mr. Sutar Ketan Atmaram

UNDER THE GUIDANCE OF

Mr. Kumare C. D.

DEPARTMENT OF COMPUTER ENGINEERING

2017-2018

Department of Computer Engineering

I.C.R.E. College, Gargoti.
2017-2018

CERTIFICATE

This is to certify that

Miss. Mashalkar Prajakta Vilas

Miss. Sawant Harshada Umesh

Miss. Sawant Shreya Ramesh

Mr. Sutar Ketan Atmaram

Of final year Computer Engineering have successfully completed their project work entitled

"Alumni Portal"

in satisfactory manner as partial fulfillment of diploma in Computer Engineering, ICRE , Gargoti in the academic year 2017-2018.

Prof: Kumare C. D.	Prof: Altekar S.A	Prof: Ghevade J.S.
Guide	**H.O.D.**	**Principal**

ACKNOWLEDGEMENT

We express our deep gratitude to our project guide Mr. Kumare. C.D. For his guidance and interest throughout the work Satisfactory completion of this project was possible only because of the encouragement and valuable instruction from his.

We also express our deep gratitude to our principal Mr Ghevade J.S and Head of the department Mr.Altekar S.A. for project Hardware Requirement and library staff for providing us all facilities and Environment to work sincerely and efficiently.

We are expressing our deep gratitude to all our friends and classmates to give a normal support throughout the project work.

Thank you.

Project Group:

Miss. Mashalkar Prajakta V.
Miss. Sawant Harshada U.
Miss. Sawant Shreya R.
Mr. Sutar Ketan A.

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1. INTRODUCTION

- **Title of the Project:**

" Alumni Portal"

- **Objective :**

Alumni system is providing common platform for every institute Owing to the need to have all the Alumni (already passed out students) must be connected to the Institute, resulted in sharing their experiences , views , ideas, guidance , motivations and strategies.

1.1 Abstract :

Abstract of the Project :

This project is aimed at developing a repository and each engine for alumni of the college, which is of importance to a college. Alumni System project is to build a system that will be able to manage alumni data of a college and provide easy access to the same.

This System can be used as an application for the Alumni to manage the college information and student's Information. Student logging should be to upload the information of the employee.

It maintaining all the records in system. System database which makes it very easy to access and retrieve data from the database.

➢ Overview Of Project:

Nowadays storage has become an important asset. And so maintaining an optimized storage is very necessary. Therefore the proposed system would be able to bring about a lot of transparency in providing a way to maintain an efficient storage. Sometimes without the user's knowledge , lot of duplicate files get created and due to this lot of storage gets consumed .

So this system would help to find out such redundant files and delete them as per user requirements. Therefore the user can have a relief from duplicate data problems and get an efficient and optimized storage .

Also in future , personal storage is going to be an important issue and so through that point of view this system has been developed to solve the problem.

2. System Requirements

Before installing the software , it is necessary that the PC on which the software is going to be installed should meet certain requirements , else the software won't work due to lack of requirements .

So for the current system , following are the current requirements -

Hardware Requirements:

Intel Pentium 4 and above

1 GB RAM recommended

At least 200 MB of free space

Software Requirements:

Operating System: Windows XP,Vista,Win7,Win8,Win10 etc…
Server: XAMPP Control panel
Language: Java
Backend: MySQL 5.5 OR above
Tools:
Jdk 1.6 or above
NetBeans 7.0 or above
MySql Administrator

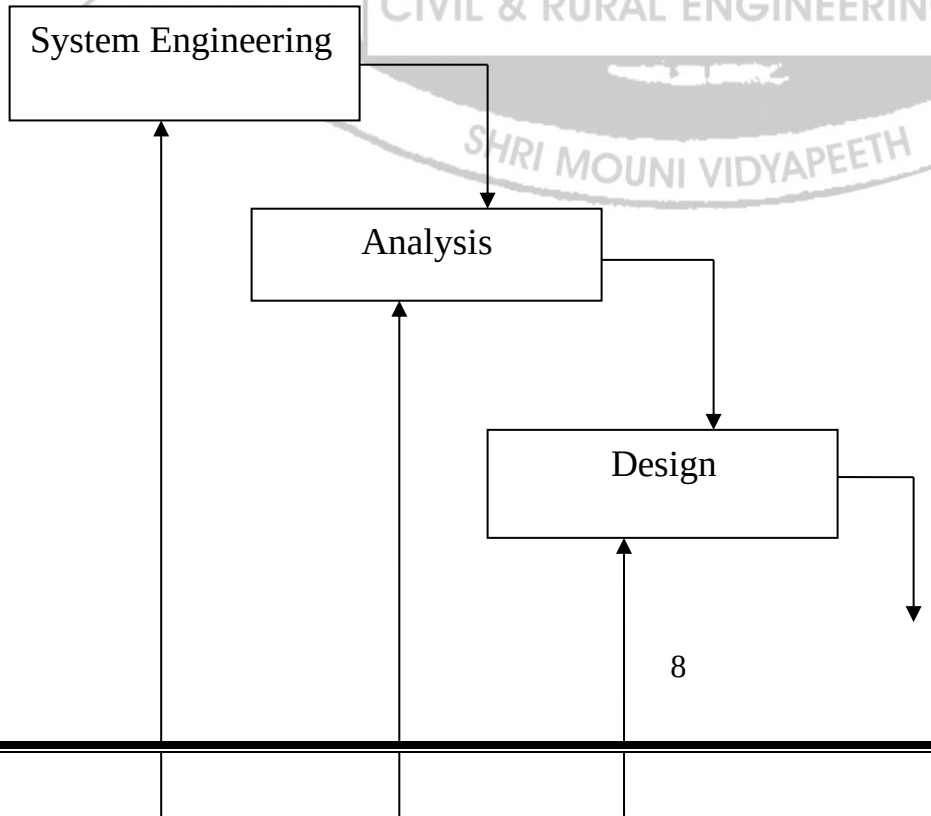
3. Lifecycle Model

The Phased Lifecycle Model :

The stage of planning and developing process involves defining, developing, testing, operating, delivering and maintaining a software product .Different lifecycle models emphasize different aspects and single lifecycle model is suitable for all software products. A lifecycle model i.e. understood and accepted improves project communication and enhance project manageability, resource allocation, cost control and product quality.

The phased lifecycle model represents software lifecycle as a series of successive activities. The phase requires well defined input information, processes and results in well defined products. The phased lifecycle model consists of following phases:

1. Analysis
2. Design
3. Implementation
4. System testing
5. Maintenance



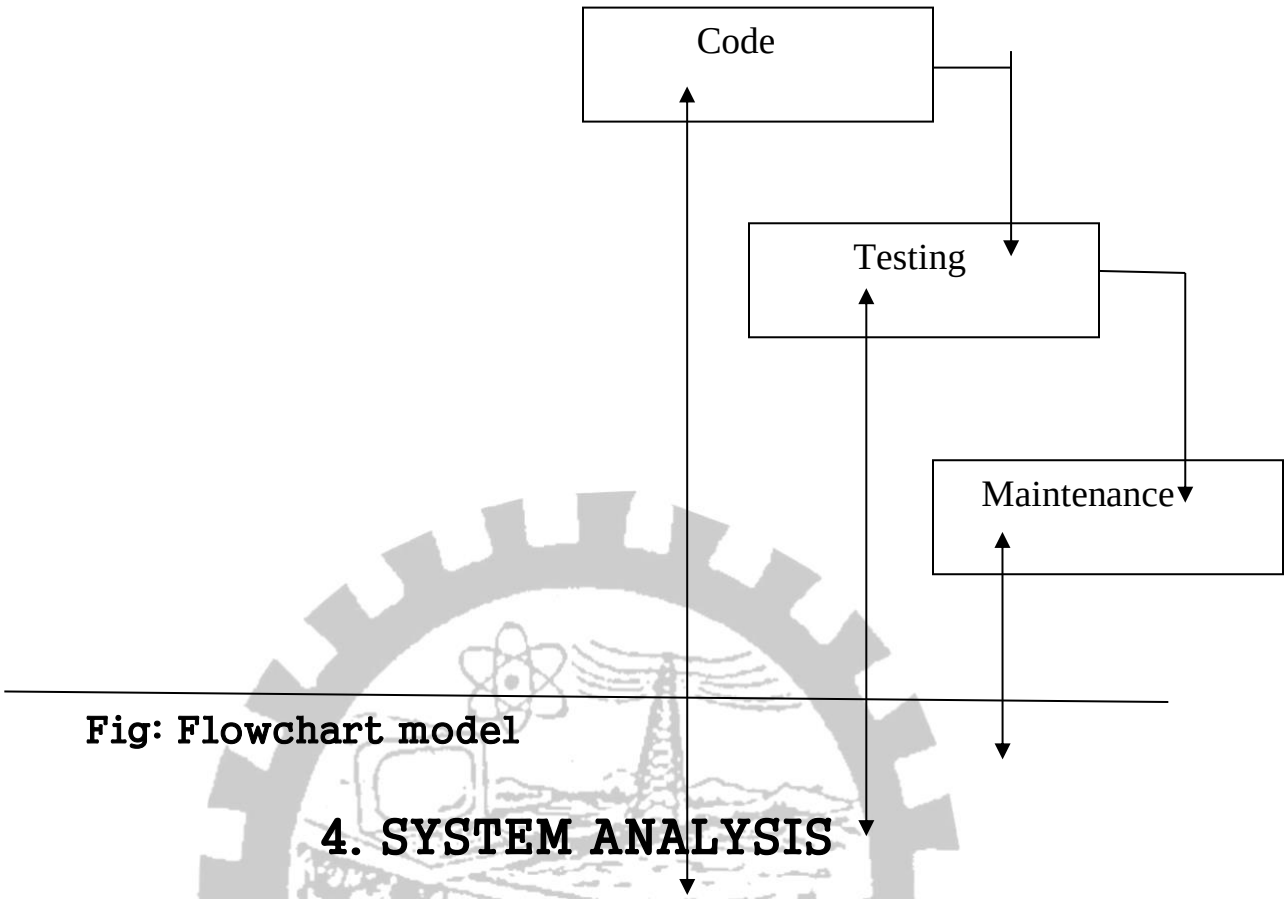


Fig: Flowchart model

4. SYSTEM ANALYSIS

2. System Analysis :

System Analysis is first stage according to System Development Life Cycle Model. This System Analysis is a process that starts with the analyst. Analysis is a detail study of various operations performed by system and their relationships within the outside system .One aspect of analysis is defining the boundaries of the system and determine whether or not candidate should consider other related system .During analysis, data is collected from available files, decision points, and transaction handled by the present system.

2.1 Existing System :

- Existing system is a manual one in which users are maintaining books to store the information like colleges details, student details. It is very difficult to maintain historical data.
- It is difficult to maintain important information in books.
- More manual hours need to generate required reports.
- It is tedious to manage historical data which needs much space to keep all the previous yeas' ledges, books etc…

2.4 Analysis :

The requirement phase basically consists of three activities:

1. Requirement analysis.
2. Requirement specification

2.4.1 Requirement Analysis :

- Requirement analysis is a software engineering task that bridges the gap between system level software allocation and software design.

- The basic aim of this stage is to obtain a clear picture of the needs and requirements of end-user and also organization.

- Analysis involves interaction between the clients and the analyst.

2.4.2 Requirement Specification :

- Software Requirements Specification plays an important role in creating quality software solutions.

- Specification is basically a representation process.

- Requirements are represented in a manner that ultimately leads to successful software implementation.

- Representation format and content should be relevant to the problem.

- Diagrams and other notational forms should be restricted in number and consistent in use.

5. FEASIBILITY STUDY

5.1 Selection of Platform

5.1.1 Java

Java is a general-purpose computer programming language and specifically designed to have as few implementation dependencies as possible. It is intended to let application developers "Write Once Run Anywhere" (WORA), meaning that compiled Java code can run on all platforms that support Java without the need for recompilation. Java applications are typically compiled to byte code that can run on any Java Virtual machine (JVM) regardless of computer architecture.

5.1.2 Why Java ?

Because of following benefits we use the Java –

1) Easy To Understand -

Many would be surprised to see this one of the top reason to go for learning Java, or considering it as best programming language for developing any application, but it is. If you have steep learning curve, it would be difficult to get productive in short span of time, which is the case with most of professional project.

2) Platform Independent -

In 1990s, this was the main reason of Java's popularity. Idea of platform independence is great, and Java's tag line "write once run anywhere" was enticing enough to attract lots of new development in Java. This is still one of the reason of Java being best programming language, most of Java applications are developed in Windows environment and run in UNIX platform.

3) Java is FREE -

People like FREE things, Don't you? So if a programmer wants to learn a programming language, or a organization wants to use a technology, COST is an important factor. Since Java is free from start, i.e. you don't need to pay anything to

create Java application. This FREE thing also helped Java to become popular among individual programmers, and among large organizations. Availability of Java programmers is another big think, which makes organization to choose Java for their strategic development. And so we too have chosen it for our project .

4) Rich API -

Java supports rich API and it is highly visible as it comes with the installation . Java provides API for I/O , networking utilities , XML parsing , database connection and almost everything . Whatever left is covered by open source libraries like Apache Commons , Google guava and others . Even in this project we have used jasper libraries for generating report . So this reason comes in handy too.

4) Powerful Development tools -

Some of the famous development tools like Netbeans , Eclipse have played a huge role to make Java one of the best programming language . They not only helps in code completion but also provides powerful debugging capability , which is essential for real world development. Integrated Development Environment (IDE) made Java development much easier , faster and fluent . It's easy to search , refractor and read code using IDEs .

6. Modules

In this ' Alumni Portal ' project we have four important modules which has been explained below -

1) Login Module
2) Register Module
3) Admin Module.
4) Alumni Module.
4) User Module.

Login Module -

Login module basically is used to log the user or admin into the system . The admin will have a default name and password , so he can log in directly once he owns the software . Admin can alter this name and password later through the Admin Module . But the general users have to first register themselves and then

they can login through this module . So basically this module stands as the home module to either the general user or the admin himself . It is the only entry point to the main modules .

Register Module:

Register is the most important module to the general users . Users cannot log into the system unless they register and so this module helps users to register themselves to the system . So basically there's no entry to the general users unless they register . Admin has nothing to do with this module , so its only to the new alumni signing up to the system .

Admin Module:

Admin module is very important who has all rights regarding this application. Admin can login into the system and can add new events for alumni students. Admin can see feedbacks from alumni students and also checks the registered alumni students .

Alumni Module:

Alumni have to register first into the system .Then by using the username and password they can have access to the Alumni Module . In the User Module the alumni can see events and can add status. Alumni can edit their profile and also can give feedback.

User Module:

User don't have to register or login. They can only search for alumni students And can see gallery. They can see only contact and about pages.

7. DEVELOPMENT RESOURCES

Lot of Hardware and Software resources were required during development of the project . Also resources were required in terms of Human skill . Hardware and software must exist to support the development and for functioning with those efforts skills of People are required .

7.1 Human Resources

Concerning the intellectual idea of project, the human skill required are -

- Communication with software consultants outside .
- Analyzing the changing needs and requirements.
- Knowledge of implementing artificial intelligence.
- Programming skill.

7.2 Hardware Resources required for development

- Intel Pentium 4 / Core 2 Duo / Dual Core
- 1 GB RAM
- At least 200 MB of free space

7.3 Software Resources

- Windows 7 OS

- NetBeaans IDE
- XAMPP Control Panel
- JDK 1.6

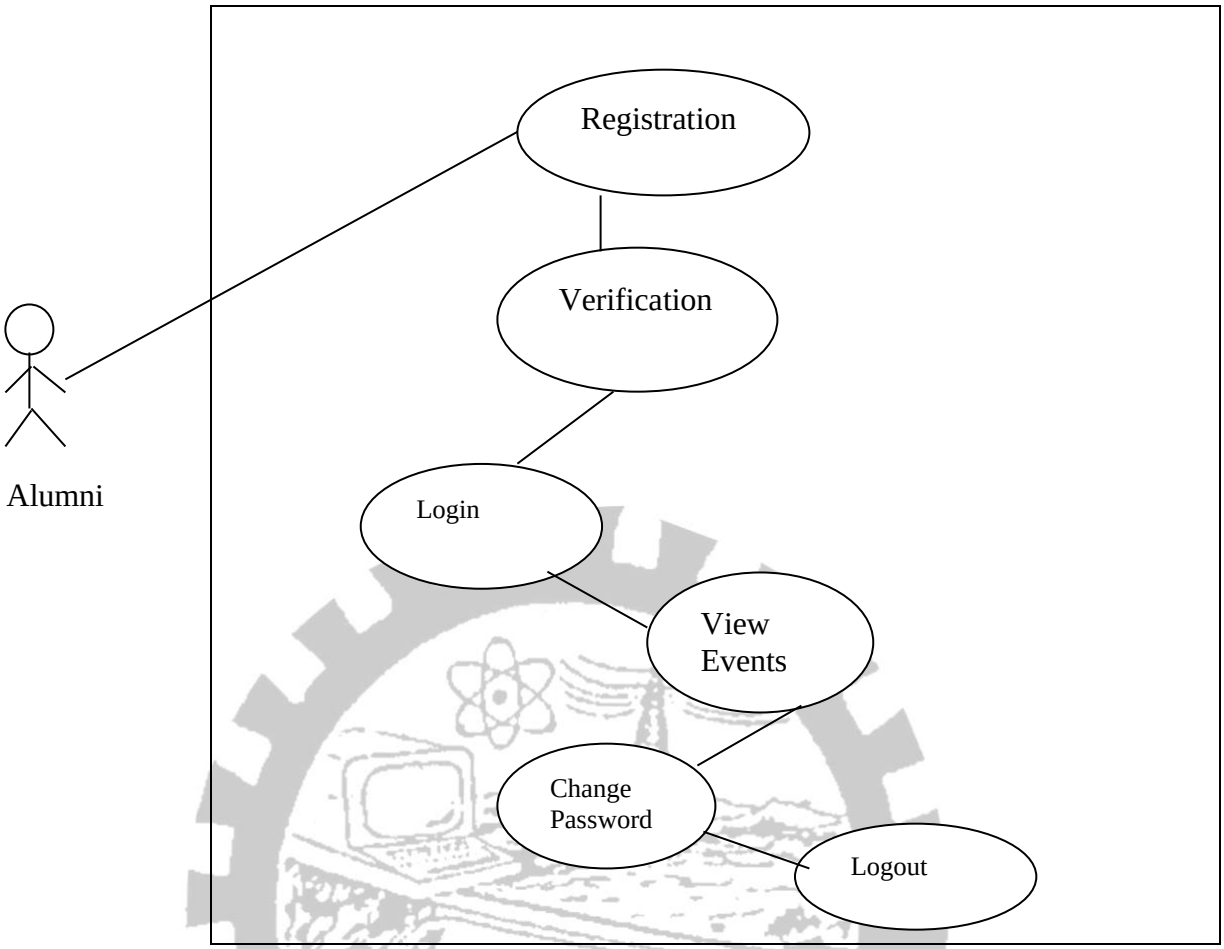
7.4 Documentation Tool

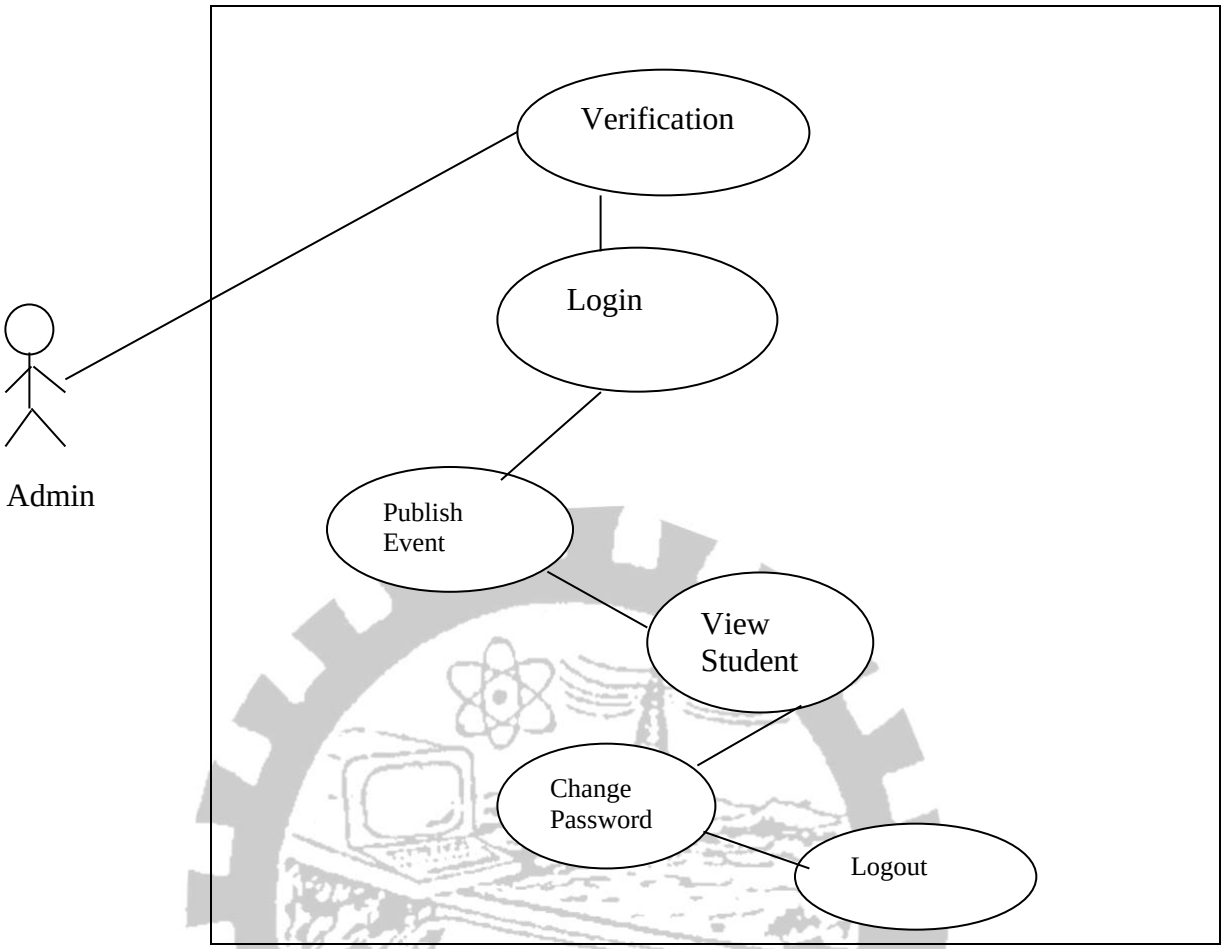
- Microsoft Word.

8. SYSTEM DESIGN

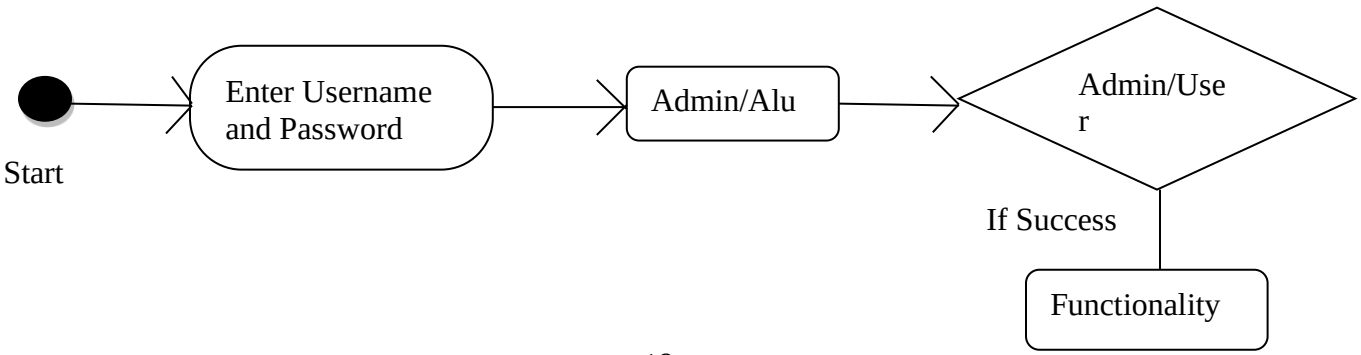
UML Diagrams

1) Use Case Diagrams -

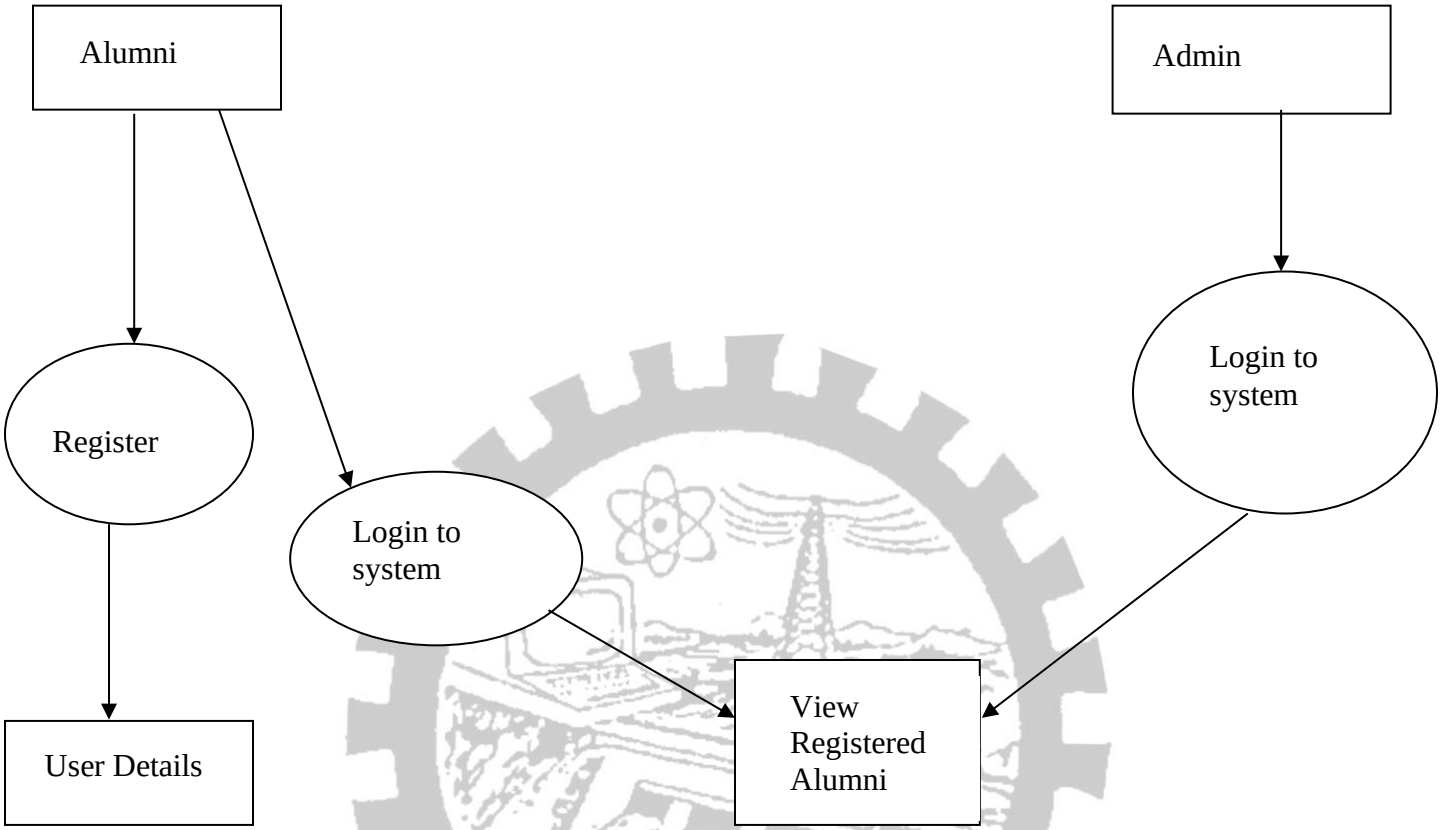




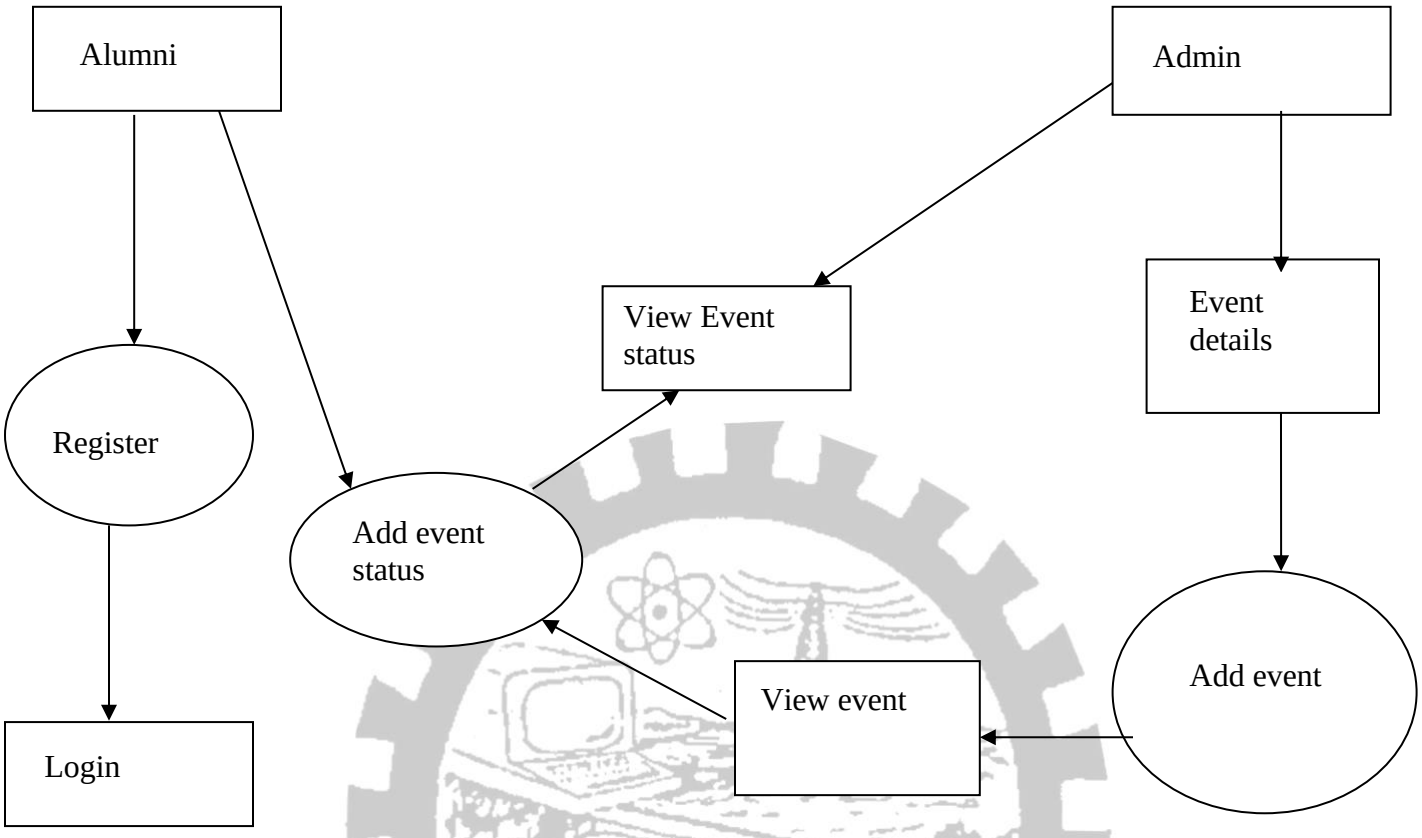
2) Activity Diagram



3) DFD Diagram -

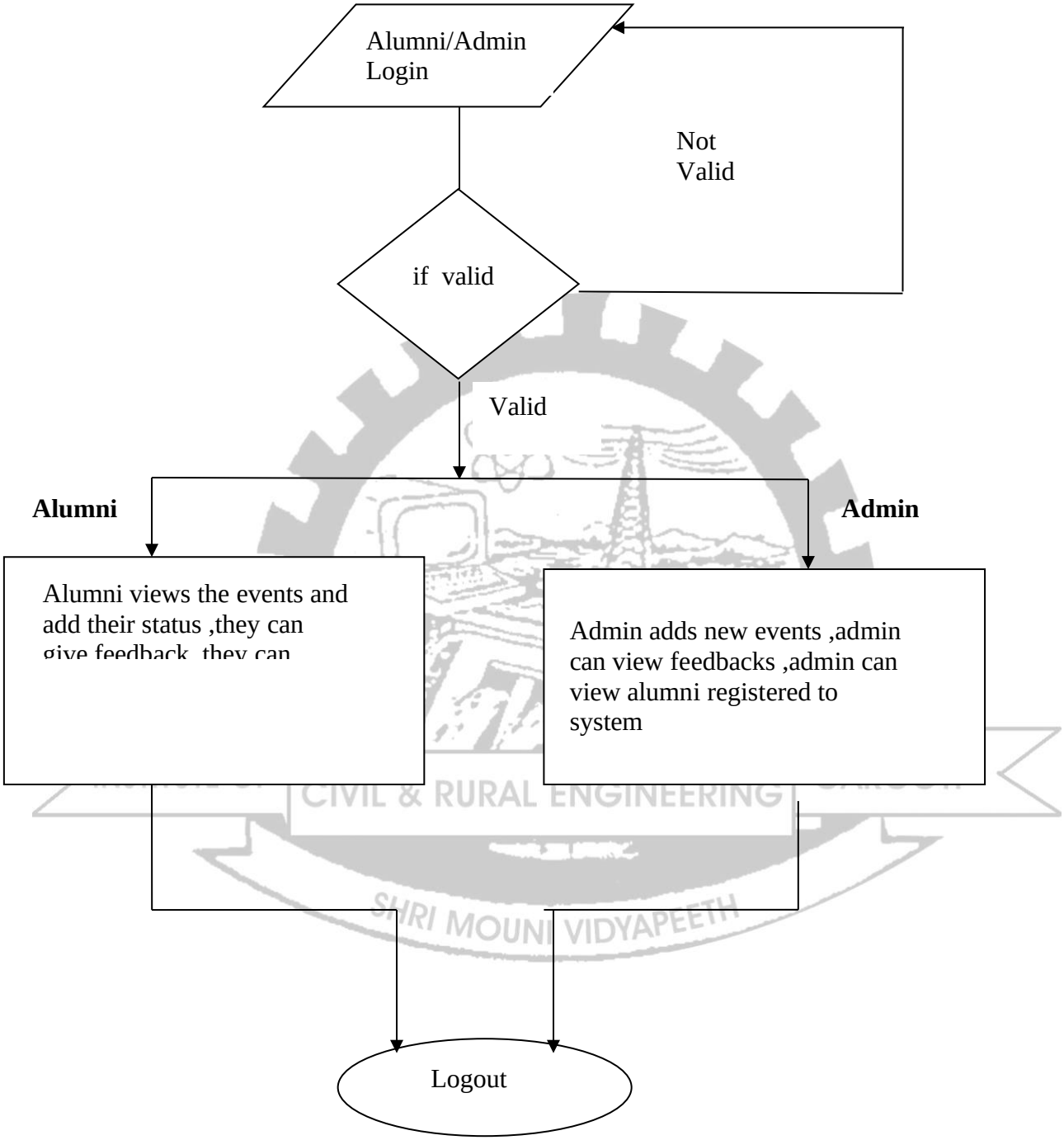


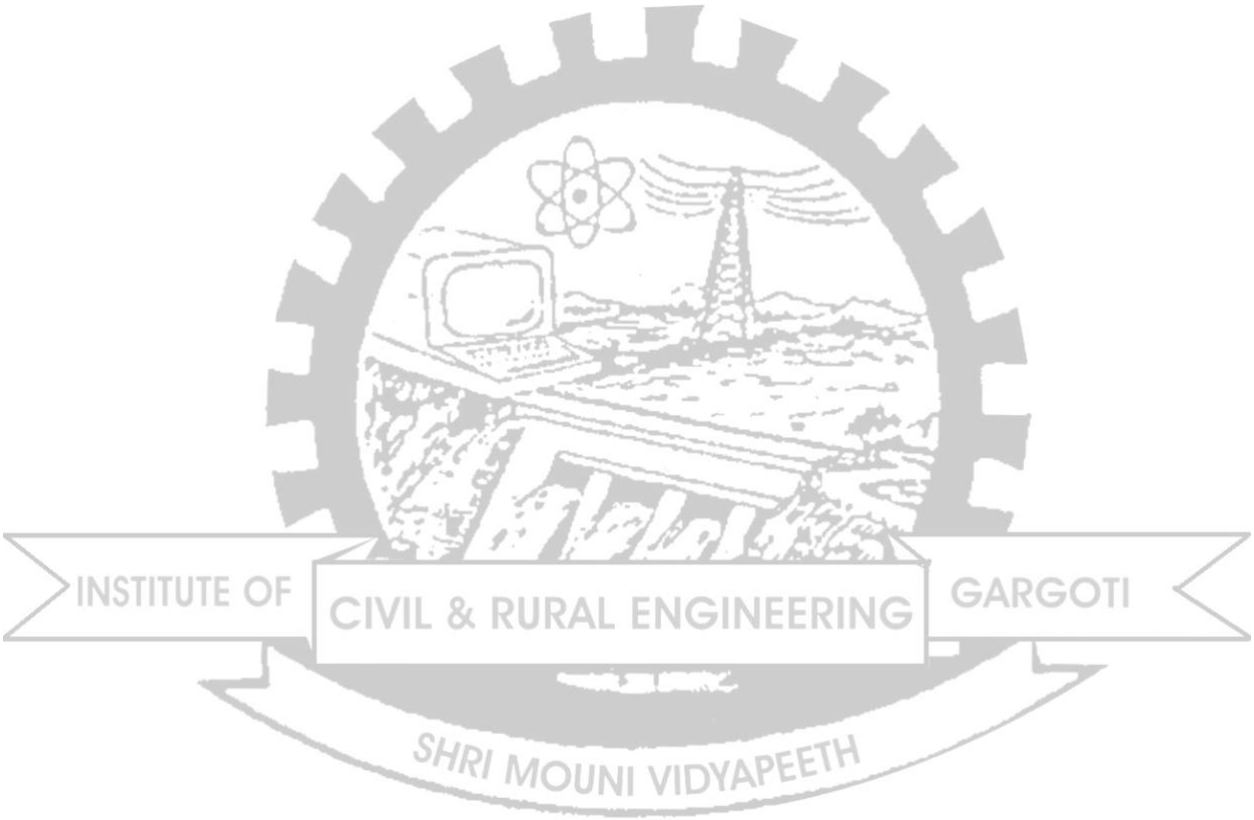
DFD level 0



DFD level1

4) Flowchart Diagram -

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9. TESTING REPORT AND ANALYSIS

9.1 Test procedure:

9.1.1 Testing procedure and implementation-

Testing is one of the stages of system analysis and design which is great importance. Testing is the process of executing a program with the explicit intention of finding errors that is, making the fail. A successful test is one, which finds errors.

Through testing the errors in the site can be detected at an earlier stage & corrected. This immensely helps in the stage implementation. It will enhance smooth implementation & proper functioning of the system.

The system goes through following testing phases:

- Unit Testing
- Black Box Testing
- White Box Testing

Testing plays vital role in the success of any software. Effective early in the process translates into long cost saving and efforts required for correcting it.

Unit Testing:

System is divided into different modules. Each structure is considered as a module. Each module is tested for its expected output. Testing of the system is done once module is developed.

Along with developed system , test data is used to carry this testing procedure. So text fields were checked in each module whether it took the right inputs such as while renaming Admin name and password .So using the test data logical bug or errors were found out.

Expected results were compared with obtained result and corresponding corrections were made if necessary. Ability of system to maintain valid and accurate data was also observed as well as ability to add and search the information.

Black Box Testing:

Black box testing is done to check output with its corresponding expected output for the input. This type of testing done is by using artificial and real data input.

Output of the system i.e. the estimation cost and other output are depends on the input and their respective formulae. Each input is checked for outputting the formulae used Here the testing done is just for the UI and not the internal code.

So button clicks were tested , whether the right action was performed .Also testing was done to see if windows were redirected as expected . Also corrections were done when the outputs were not as needed .

White Box Testing:

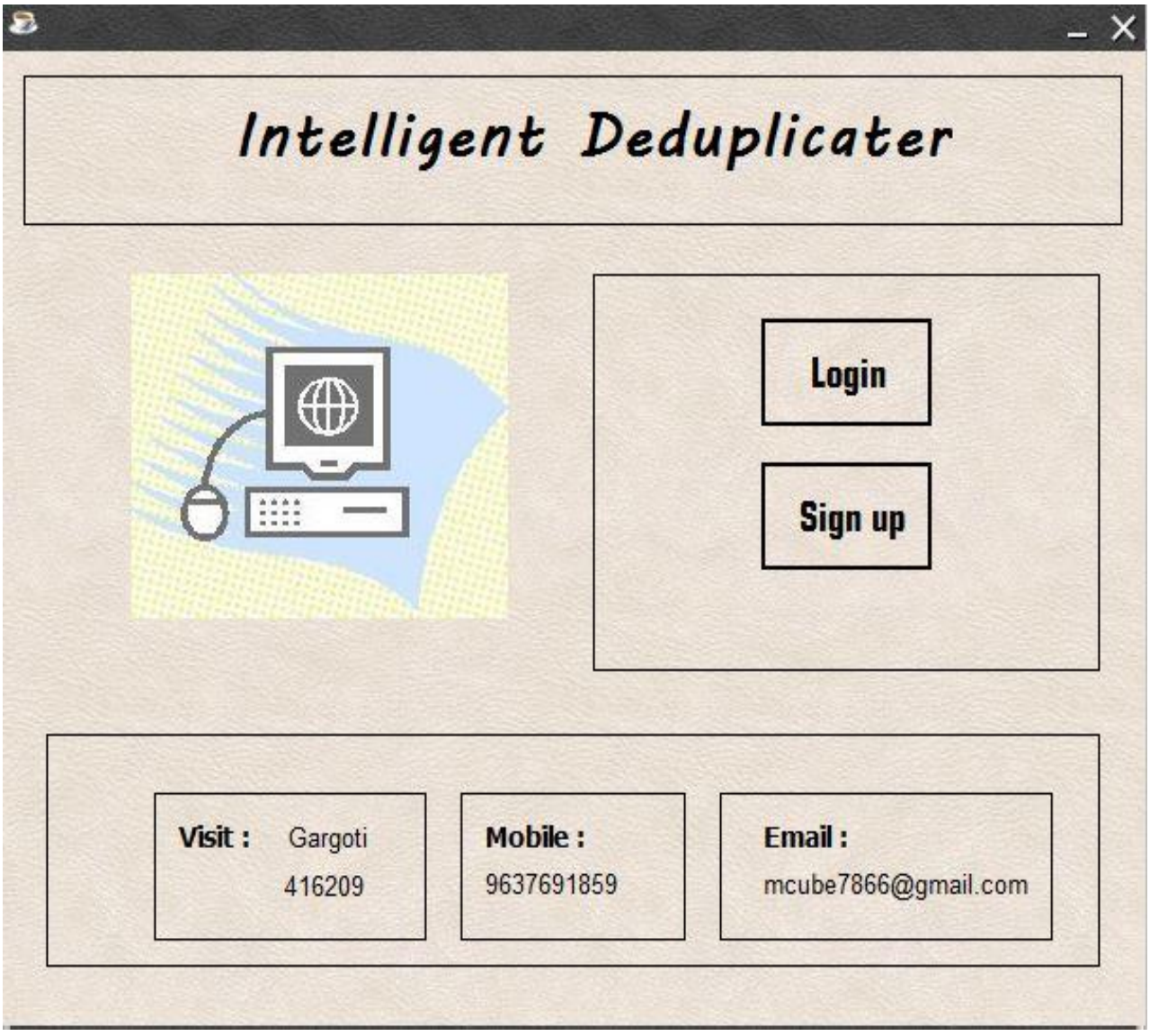
It is a test case design method that uses the control structure of the procedural design test case. Using this techniques we can drive test cases that -

- Guarantee that all independent path within a module have been exercised at least ones.
- Exercise all logical decision on their true and false side.
- Exercise all loops at their boundaries and within operational bounds.
- Exercise internal data structure to ensure their validity.

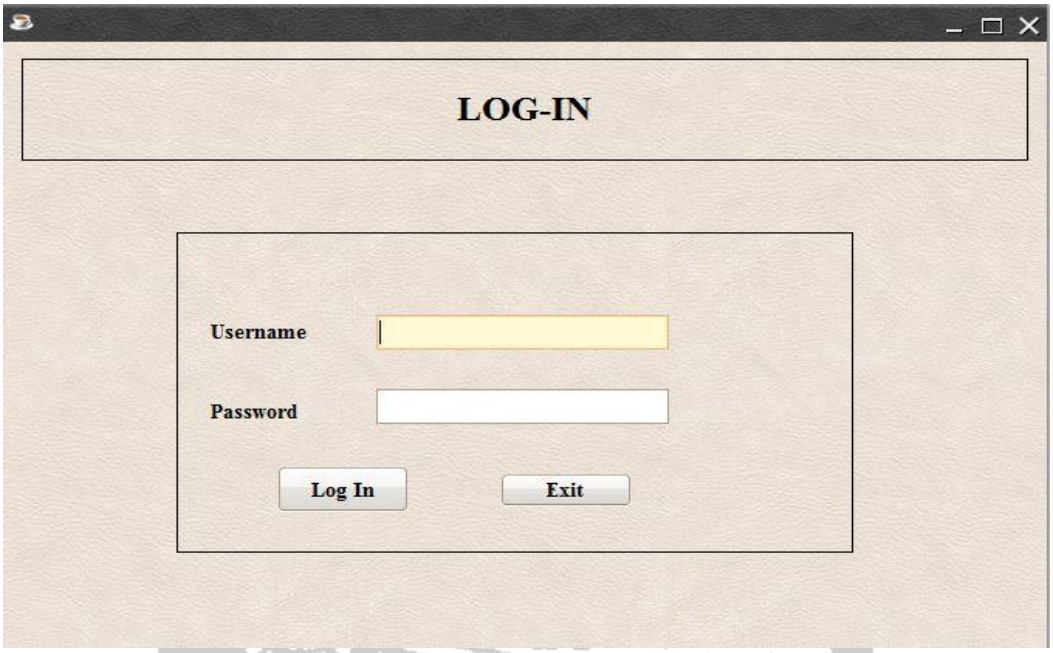
So as per the test , all the internal parts of code were tested and debugged to see if all the loops within the project are working fine as needed . Also each section of code were checked for any missing semicolons or any bug leading to non- running of the software . So finally after all the tests the software worked fine .

10. GUI

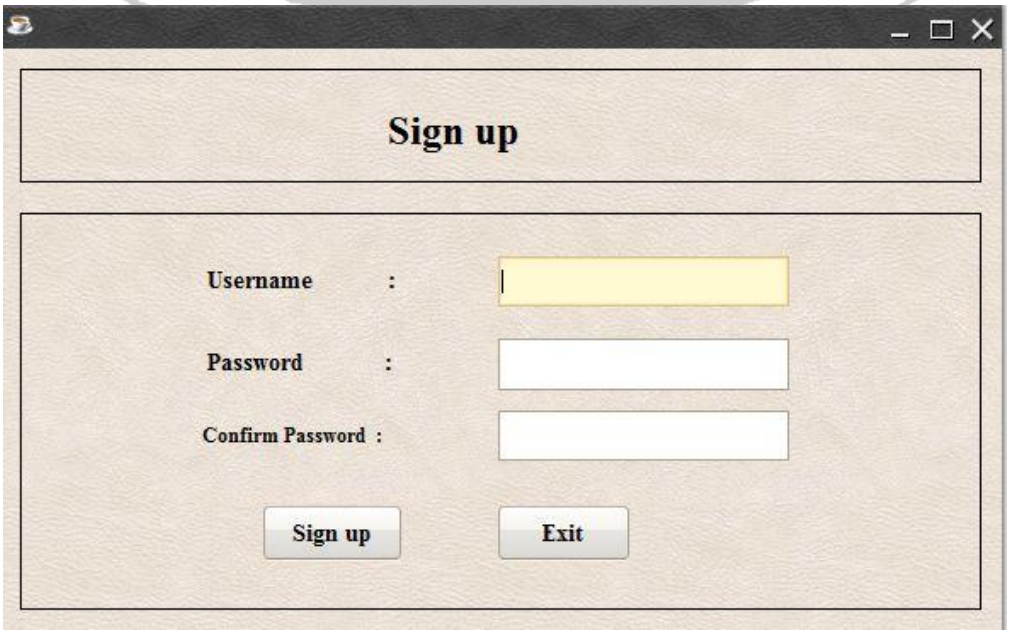
- **Home screen " Intelligent Deduplicater " -**



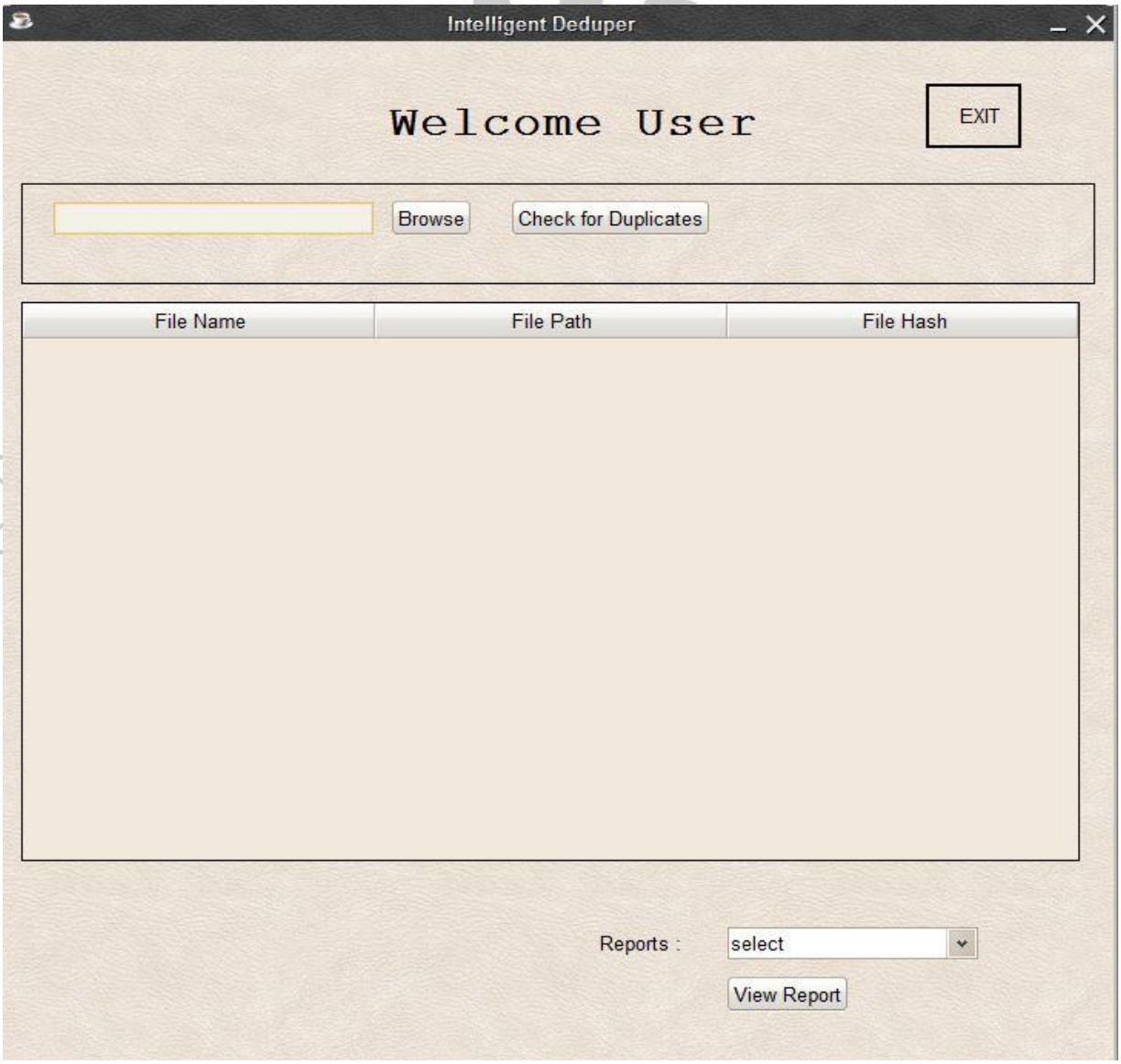
- **Login Window -**



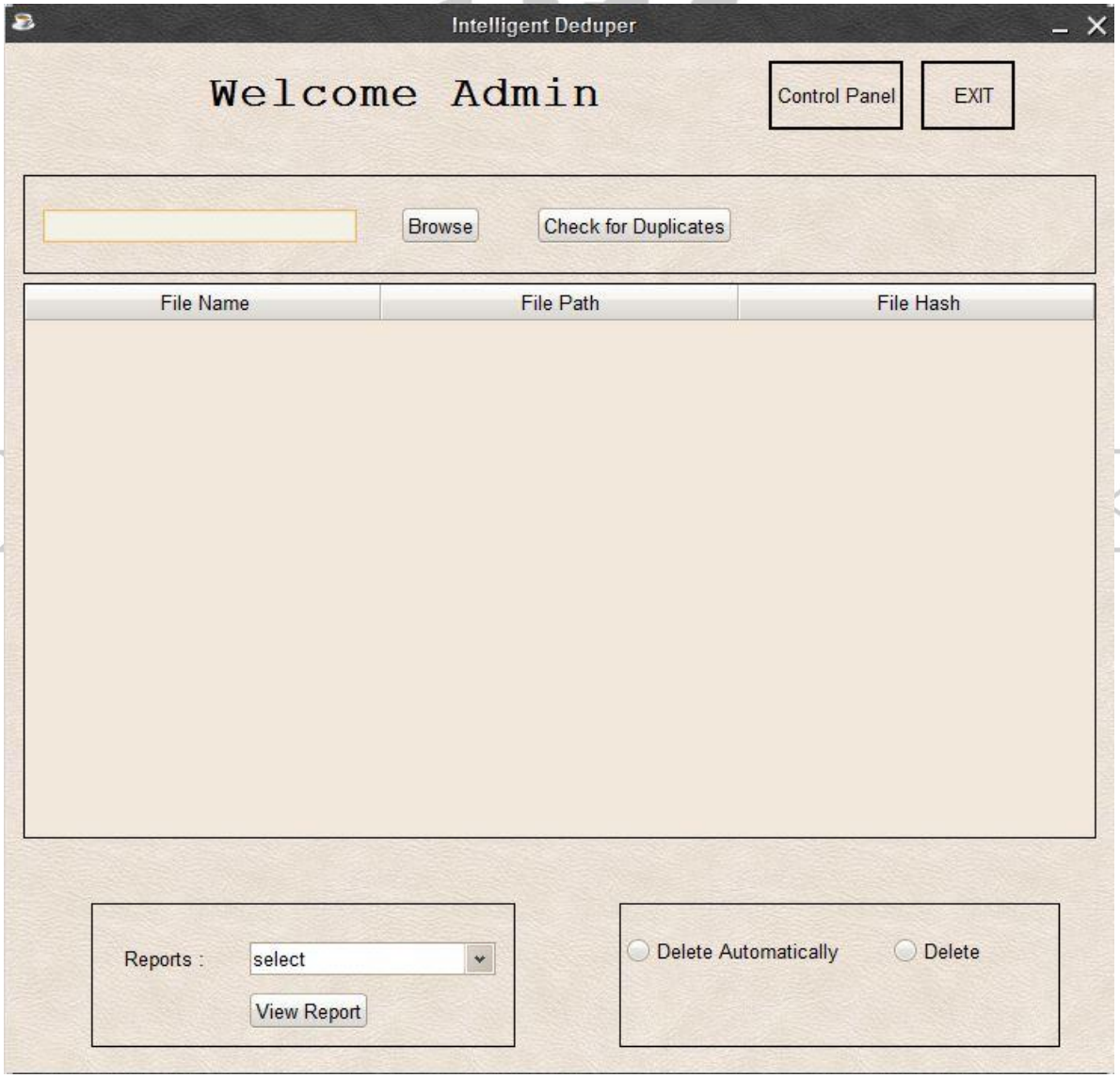
- **Sign up Window -**



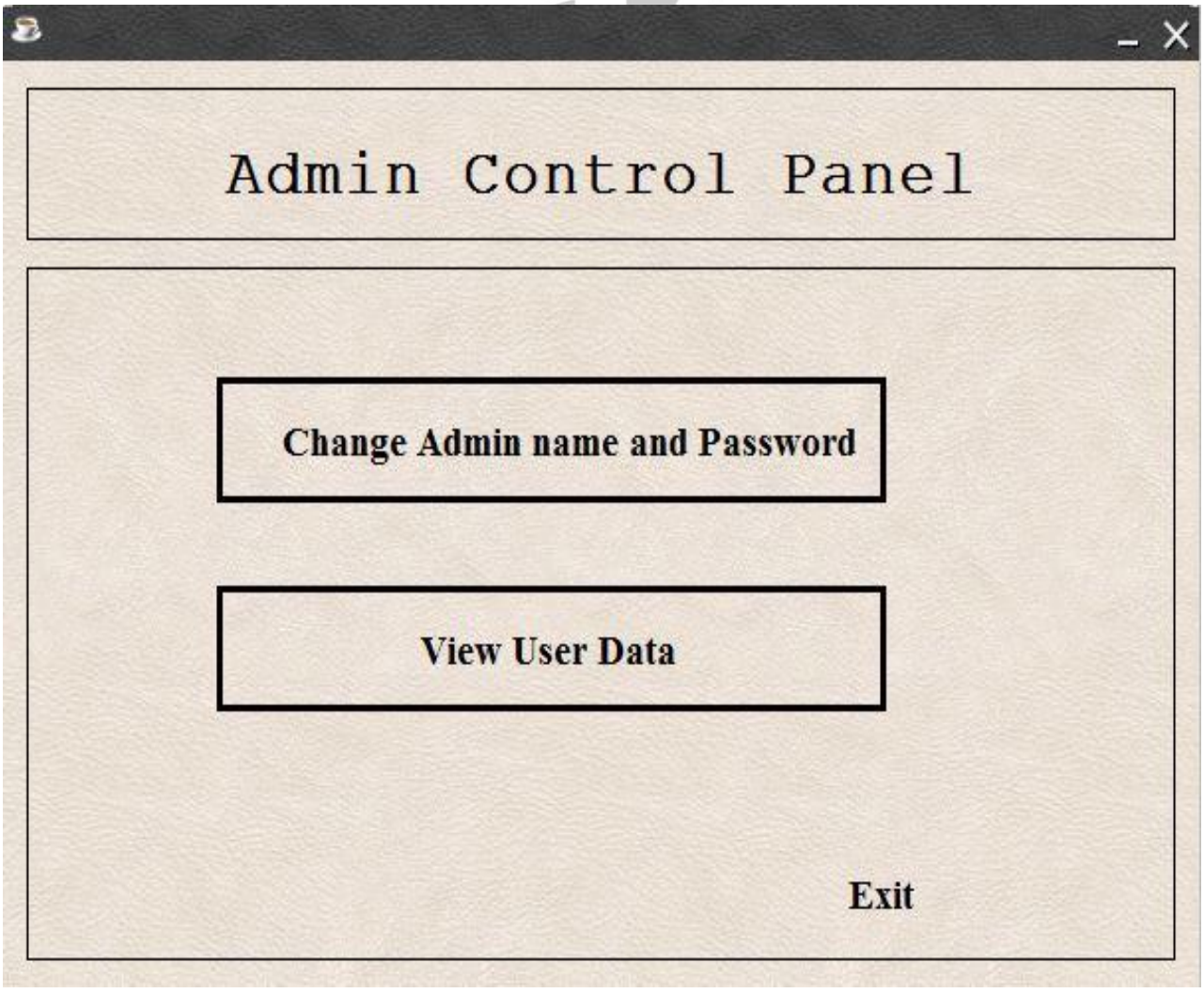
- **User Main Window**



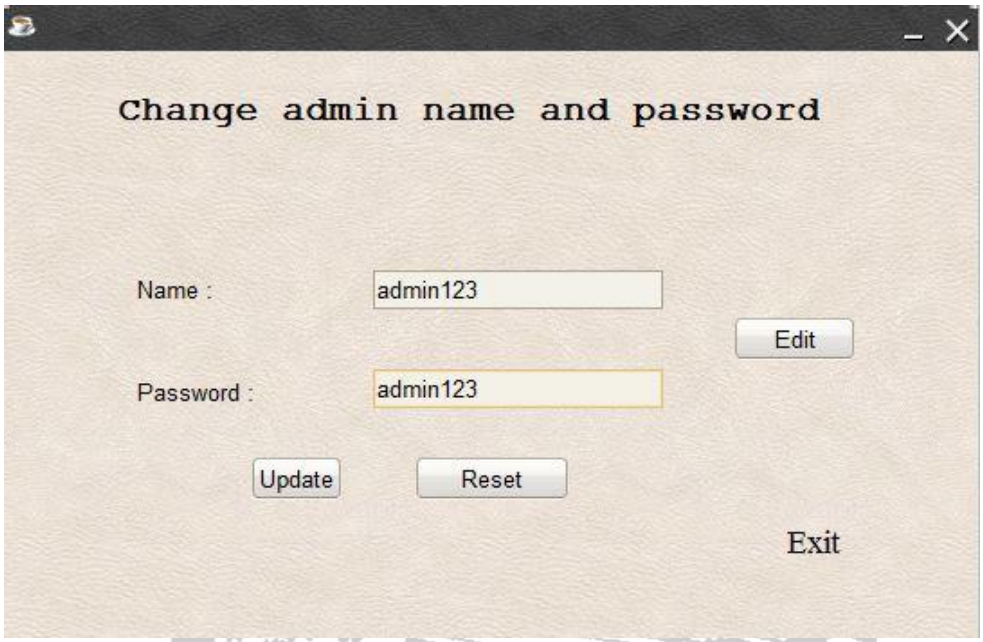
- **Admin Main Window**



- **Admin Control Panel Window**

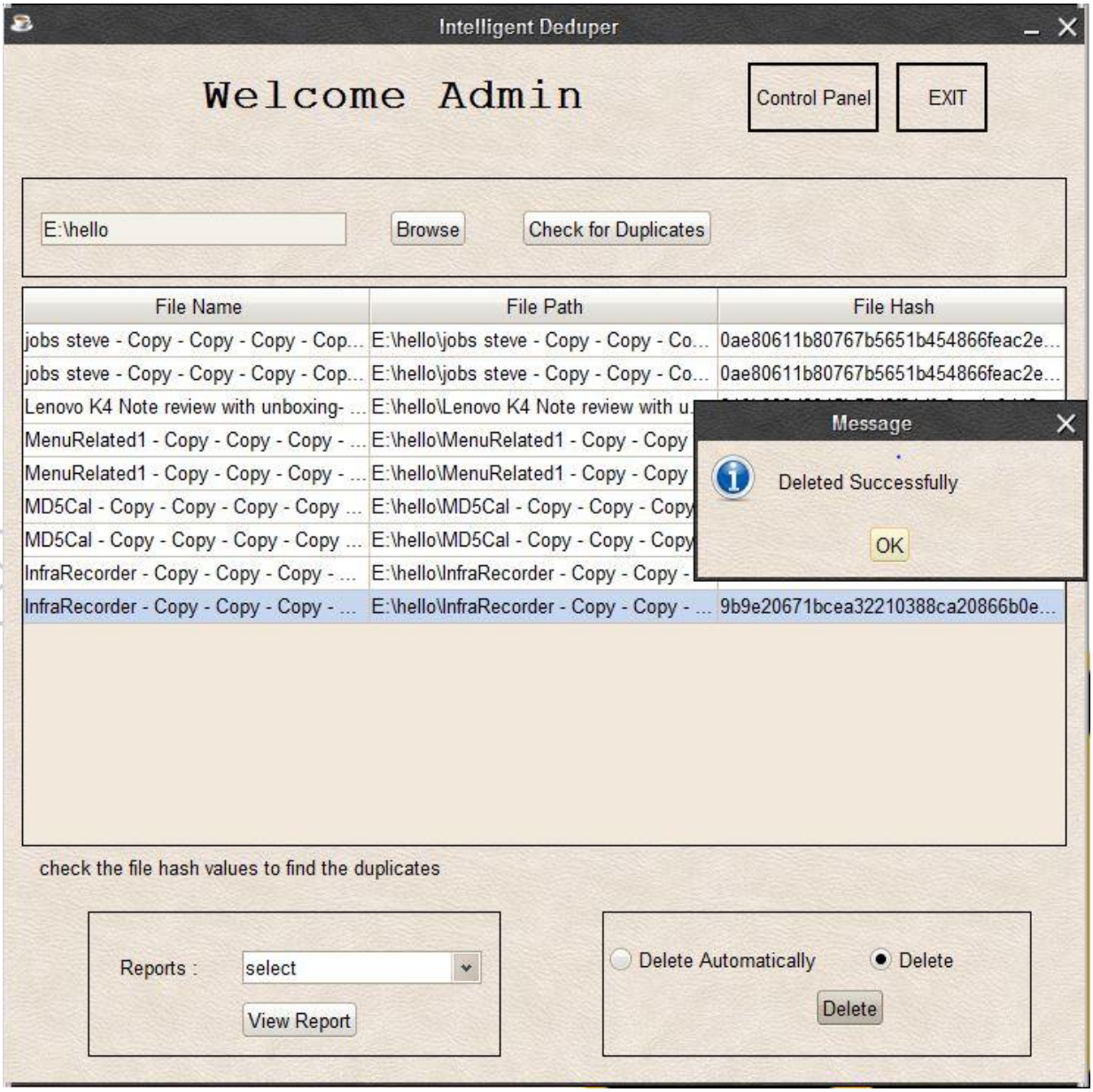


➢ Change Admin Name and Password Window

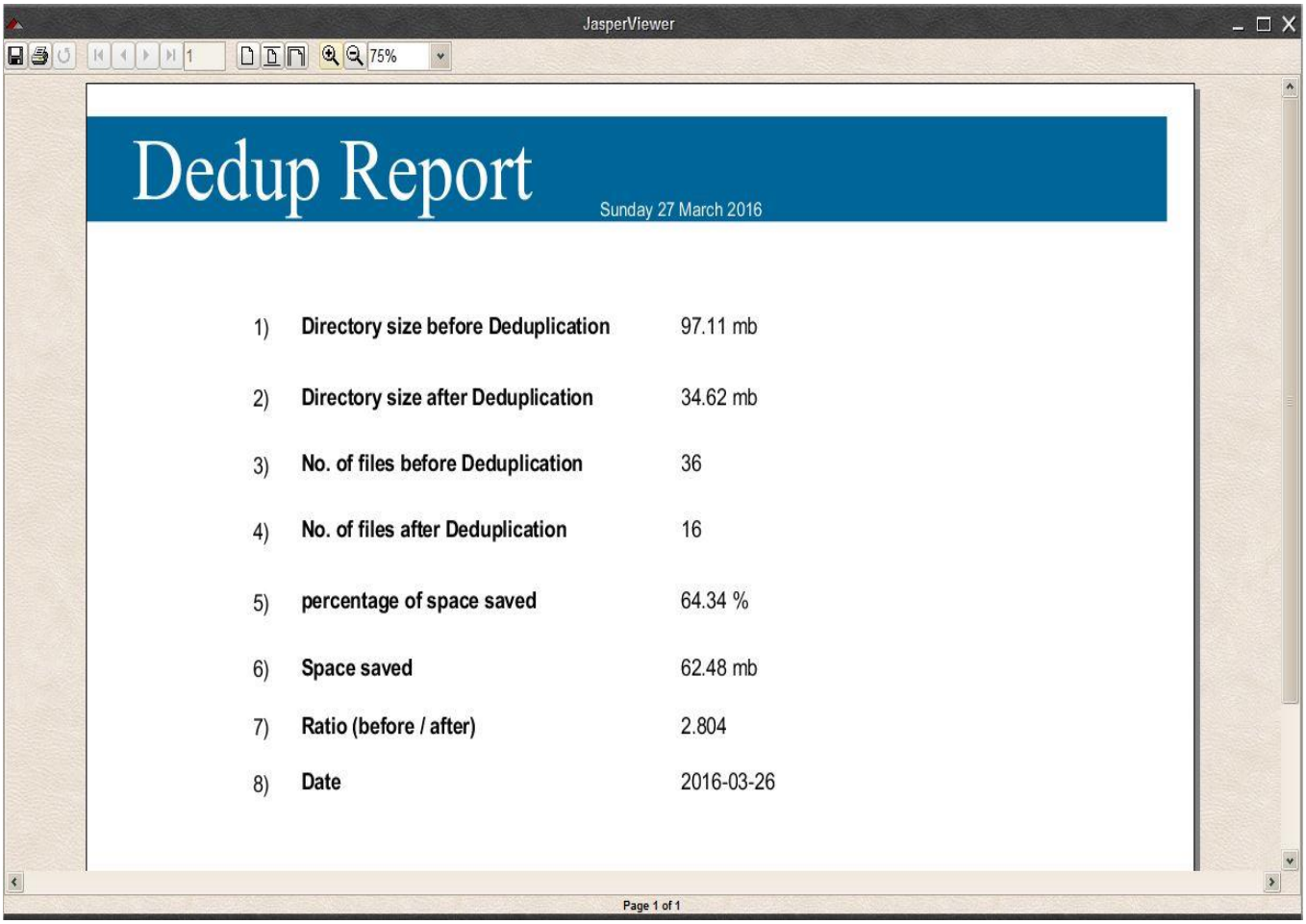


➢ View User Info Window

➢ Working module of a Admin Window -



➢ **Report Generation Main Window**

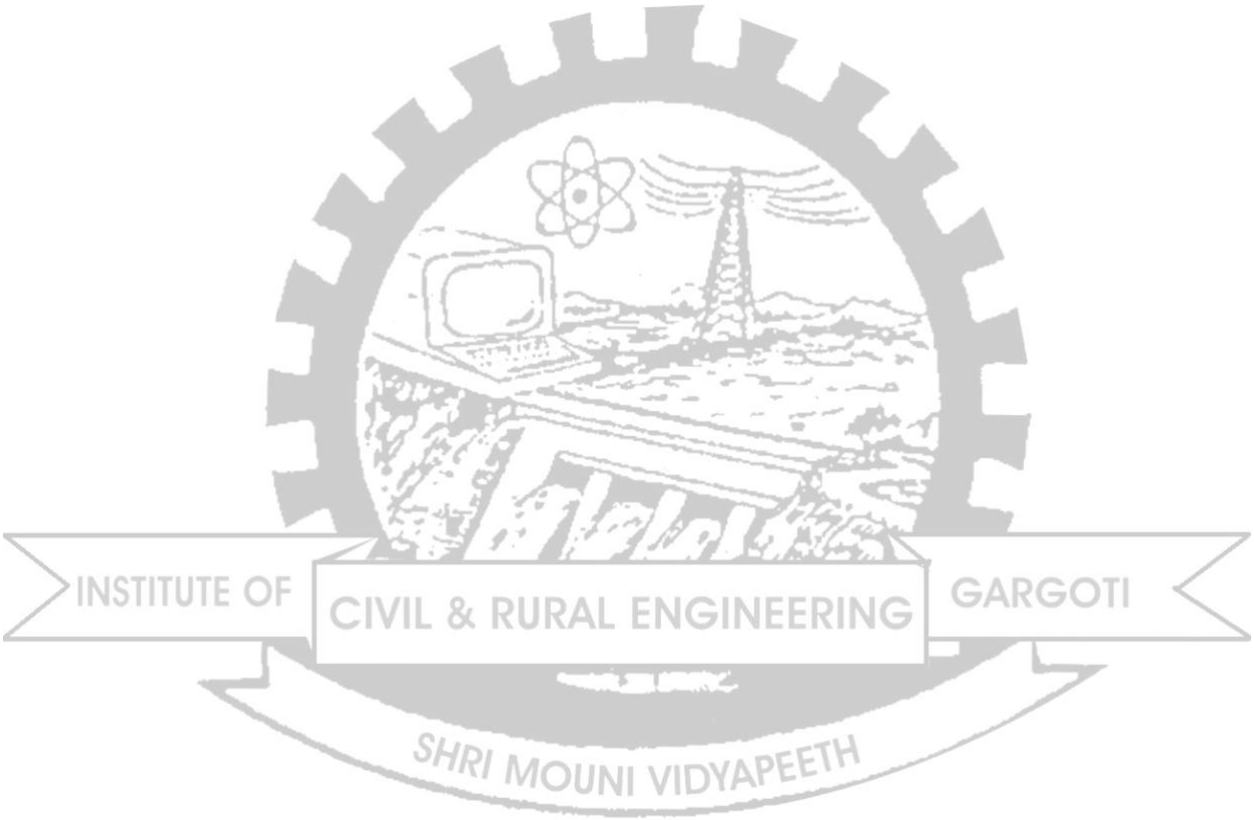


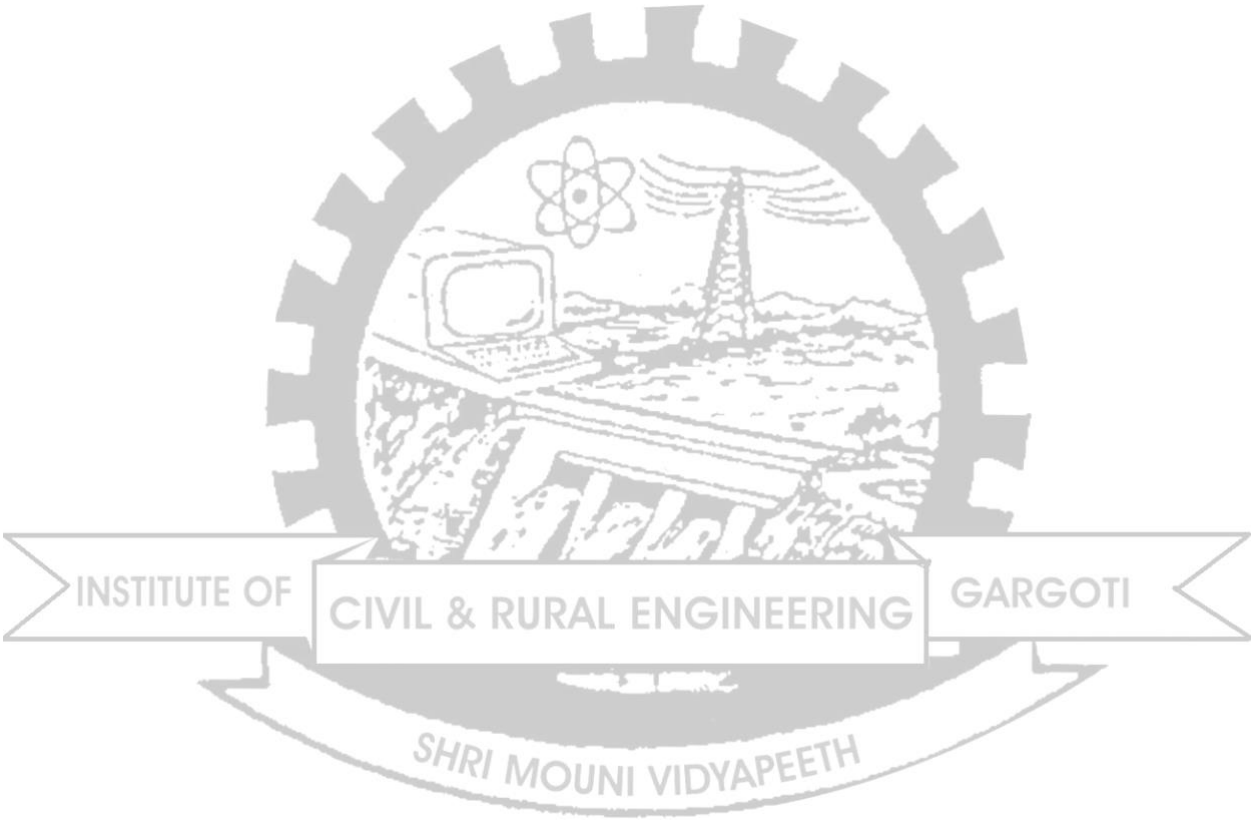
ll)Data Dictionary

Admin_login

Table Name :- admin_login

Description :- It provide Login facility for Admin.

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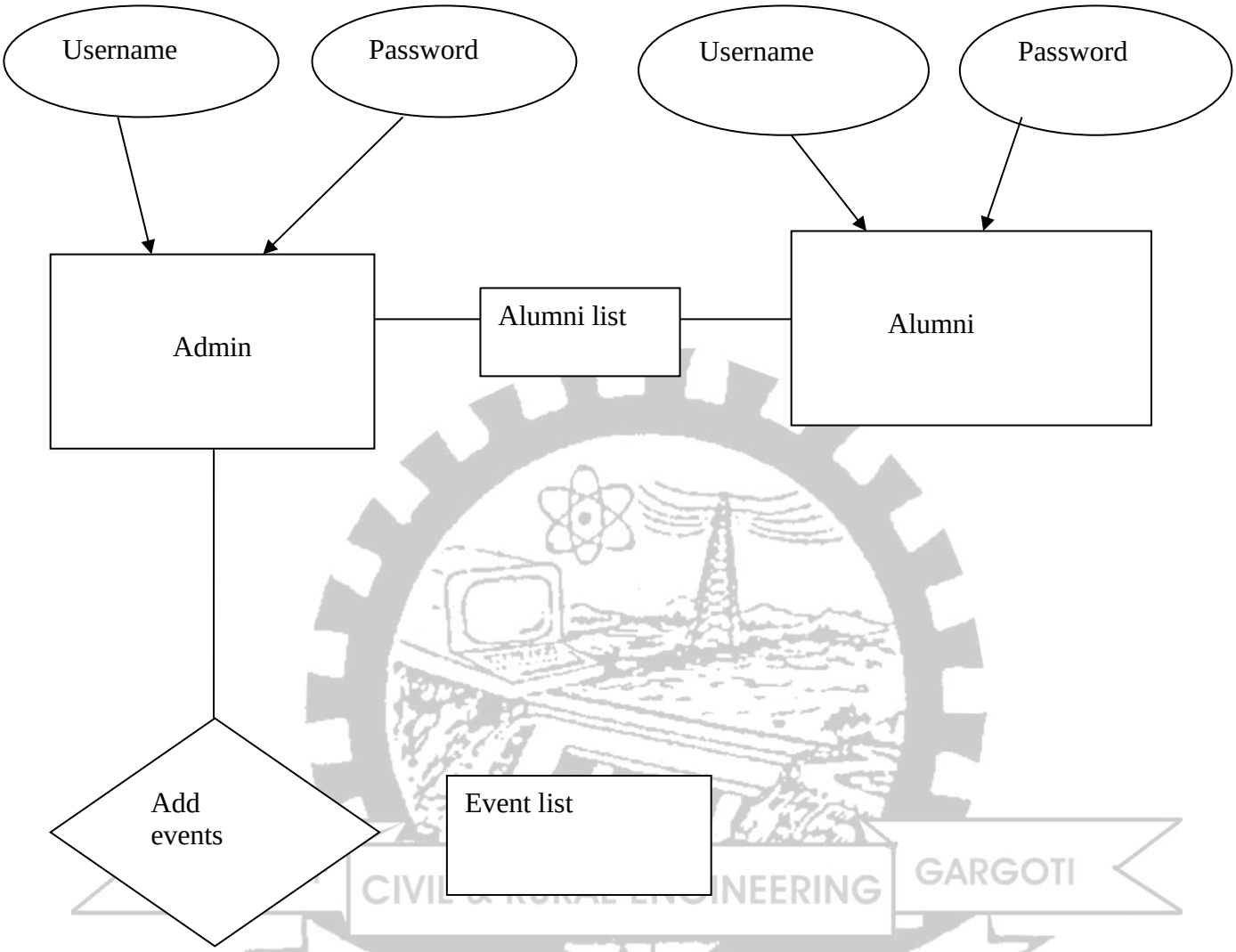
E-R Diagram:



12. FUTURE SCOPE

- In future ,we can also develop online application so we can access it from anywhere
- In order to ease the work , an Android app can also be built.
- To add certain social networking features such as of LinkedIn.
- To involve companies to avail the services of this platform.

13. CONCLUSION

Alumni portal for any college is very important. It has been setup to interaction among alumni students and also focuses on bringing together alumni students of college and the primary goal of this portal is to connect alumni and organize events for new students. They can have communication with existing college.

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