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# Simplify

*A Mini-Project Management System*

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## **ABSTRACT**

Simplify is a web based project management system developed and designed to ease the process of managing Third Year mini projects. It is a system keeping students, teachers and coordinators at its center.

Currently the projects are managed by keeping the data in excel sheets which has various shortcomings. The project is not only reviewed by a single teacher, as a result, multiple copies of the same data are created. Information in the copies is not updated at the same time, due to which there are chances of misunderstanding between the teachers and the students. This leads to data inconsistency. There is no easy and straightforward process for students to refer previous year projects. Also the teacher can't see the projects under her at once and it is difficult to keep a track of their progress. Also the important suggestions given by teachers on reviews conducted are not well documented, which tends to lack of implementation of the suggestion provided. Teachers, currently, cannot find the projects from a particular technology. For this, teachers need to scan the excel sheets for retrieval of the information which is tedious and time consuming. Currently students can't view their project progress sitting at their place at ease. Even project coordinators are unable to convey important notices and deadlines to the students due to which there is delay in the submission process.

Thus in order to overcome all the anomalies and difficulties in the existing system, we have developed "Simplify", a project to actually simplify all the Project related activities.

## **ACKNOWLEDGEMENT**

We would like to express our deepest appreciation to all those who provided us the possibility to complete this project. A gratitude to our lab teacher and mentors who gave us the opportunity to complete such a endeavouring project by providing stimulating suggestions and encouragement.

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## **LIST OF TABLES:**

1. Coordinators
2. Teachers
3. Students
4. Projects
5. Project\_tech
6. Technologies
7. Notices
8. Review1s
9. Review2s
10. Review3s

## **INTRODUCTION**

### **PURPOSE**

Simplify is a web based project management system developed and designed to ease the process of managing Third year mini projects. It fulfils the purpose of keeping a common database among the teachers, students as well as the coordinators to avoid data inconsistency. Everyone can view the details, progress and evaluation of the projects made by the students simultaneously on a common platform which makes it more efficient.

### **SCOPE**

The scope of our project is :

1. Making a database for teachers, coordinators and students.
2. The students, teachers and coordinators will create an account and login to view their respective profiles.
3. There is also a common account for the team members of each project. There they can view their project details, progress and reviews given by the teacher.
4. The teachers can view all the projects under them and also evaluate.

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5. The coordinators can view all the projects and can send important notices along with their deadlines which will be visible to everyone on the home page.
  6. There is a facility for viewing previous years' projects provided to everyone.

## **DEFINITION, ACRONYM, AND ABBREVIATIONS**

Project management system is a composition of several methods, methodology; procedure and resources to support the project management. The project management system is therefore a management and procedural model, and a performance model for the successful project completion.

## **REFERENCES**

### **JIRA SOFTWARE**

We referenced the way the leading project management tool like Jira works. Jira Software is the #1 software development tool used by agile teams

## **DEVELOPERS' RESPONSIBILITIES: AN OVERVIEW**

Responsibilities of the developers include:

1. To ensure all the functionalities are working properly and efficiently.
2. To ensure if the UI is user-friendly and comfortable for every kind of user.
3. To check that the flow of the project is proper and easy to understand.
4. The project is attractive and informative enough and covers the scope of the project.

## **PRODUCT FUNCTION PERSPECTIVE**

The database should provide a common platform for all the teachers, coordinators and students so that the changes made in the projects are available to all simultaneously and there won't be any misunderstandings.

The entities involved are :

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1. Separate account for students, teachers, team and coordinators
  2. A common home page and a dashboard connected to the database for information retrieval.
  3. Controllers for sign-in and login to set and retrieve the information details of teachers, students, teams and coordinators.

## **USER CHARACTERISTICS**

The user can be classified into three sub categories as teacher, student, coordinator. Each one will use the ID assigned to them as username for using the system. The system is designed keeping the idea of removing the troubles and problems involved in the existing project management system.

## **GENERAL ASSUMPTIONS**

The general assumption includes that to use the facility one must have his individual username ID which is unique for an individual. The system requires teacher to be present in the system so as to complete the circle of activities.

## **ASSUMPTIONS AND DEPENDENCIES**

The dependencies include various online libraries for visual effects. The system only has following assumption that teacher allocates the project ID to student groups and the teacher is already a member of the system.

## **SPECIFIC REQUIREMENTS**

### **INPUTS AND OUTPUTS**

#### **➤ INPUTS:**

##### **1. Student table:**

- a. Student\_id
- b. Student\_name

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- c. Student\_dept
  - d. Student\_batch
  - e. Student\_email
  - f. Student\_password

**2. Teacher table:**

- a. Teacher\_id
- b. Teacher\_name
- c. Teacher\_dept
- d. Teacher\_email
- e. Teacher\_password

**3. Coordinator table:**

- a. Coordinator\_id
- b. Coordinator\_name
- c. Coordinator\_dept
- d. Coordinator\_email
- e. Coordinator\_password
- f. Notice

**4. Project:**

- a. Project\_id
- b. Project\_title
- c. Project\_description

**OUTPUTS:**

- 1. Progress bar
- 2. Project reviews: 3
- 3. Notices

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## **FUNCTIONAL REQUIREMENTS**

Functional requirements:

1. Database storage: MySQL workbench
2. Display the database on Terminal: Command prompt queries
3. mysql connector to connect front end to database
4. Eclipse IDE for front end
5. Tomcat server as local host

## **FUNCTIONAL INTERFACE REQUIREMENTS**

Functional interface requirements:

1. Browser Requirement: for various visual effects
2. Optional Internet Requirement: for some transition effects

## **PERFORMANCE CONSTRAINTS**

Performance constraints:

1. Performance is limited to mini-project management.
2. Projects can be managed in a particular college i.e. its scope is local.
3. Previous years' projects are visible but their evaluation is not.

## **DESIGN CONSTRAINTS**

Design constraints:

1. Two colours, green and white, are used in the whole UI.
2. Dashboard is fixed and is common to all accounts.
3. Basic animations are used for buttons and modals.
4. Descriptions are in the form of popup-modals.

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## **ACCEPTANCE CRITERIA**

Acceptance Criteria:

1. The system requires the user to enter correct credentials for using system.
2. The notices are put by coordinators that can be viewed on regular basis by students and teachers.

## **SCHEMA DESCRIPTION**

The schema consists of entities like students, teachers, coordinators. There are entities like notices, technologies, reviews which all depicts the different tasks involved in process.



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## SYSTEM DESIGN

### ER DIAGRAM

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## TABLES DESCRIPTION

### 1. Students:

Field	Type	Null	Key	Default	Extra
student_id	varchar(200)	NO	PRI	NULL	
student_name	varchar(200)	YES		NULL	
student_email	varchar(200)	YES		NULL	
student_dept	varchar(20)	YES		NULL	
student_batch	varchar(20)	YES		NULL	
student_password	varchar(200)	YES		NULL	
project_id	varchar(200)	YES	MUL	na	

### 2. Teachers:

Field	Type	Null	Key	Default	Extra
teacher_id	varchar(200)	NO	PRI	NULL	
teacher_name	varchar(20)	YES		NULL	
teacher_email	varchar(20)	YES		NULL	
teacher_dept	varchar(20)	YES		NULL	
teacher_password	varchar(200)	YES		NULL	

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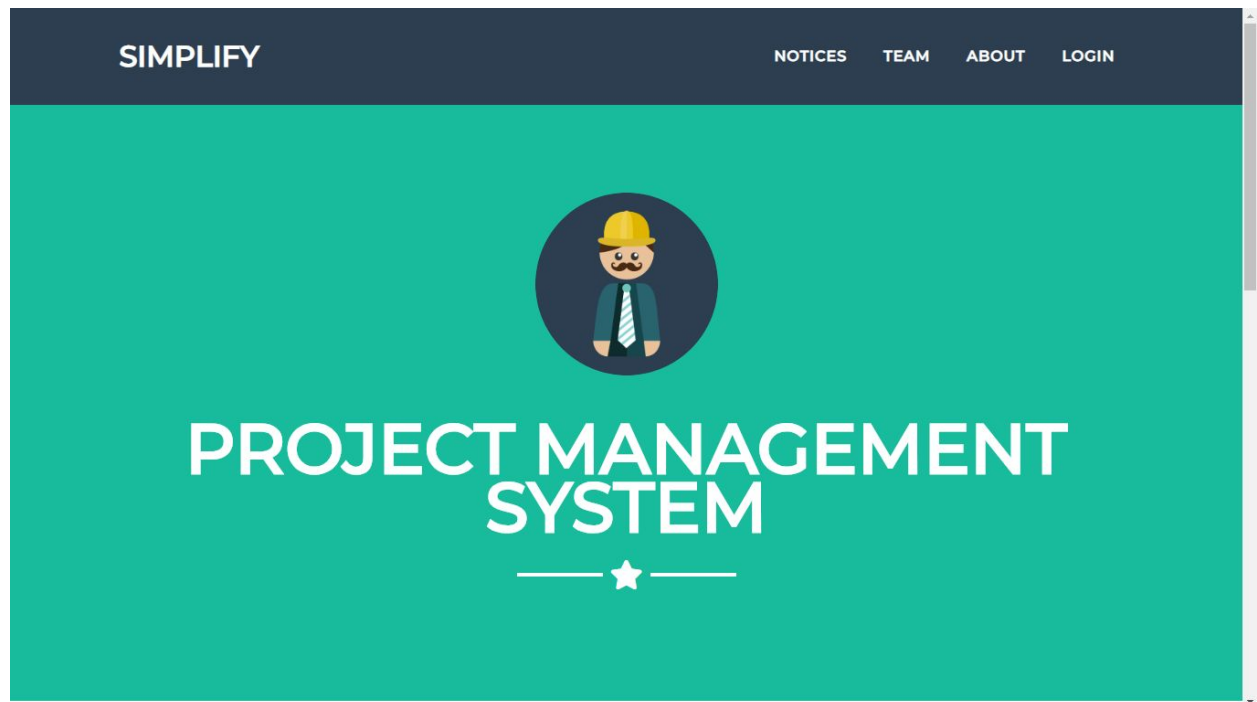
### 3. Coordinators:

Field	Type	Null	Key	Default	Extra
coordinator_id	varchar(200)	NO	PRI	NULL	
coordinator_name	varchar(200)	YES		NULL	
coordinator_email	varchar(200)	YES		NULL	
coordinator_password	varchar(200)	YES		NULL	
coordinator_dept	varchar(20)	YES		NULL	

### 4. Projects:

Field	Type	Null	Key	Default	Extra
project_id	varchar(200)	NO	PRI	NULL	
project_title	varchar(200)	YES		NULL	
project_domain	varchar(200)	YES		NULL	
project_description	varchar(200)	YES		NULL	
teacher_id	varchar(200)	YES	MUL	NULL	
project_link	varchar(200)	YES		NULL	
project_date	timestamp	YES		CURRENT_TIMESTAMP	

## USER INTERFACE DESIGN



## ABOUT



*Simplify is a web based project management system developed and designed to ease the process of managing 3rd year mini projects. It is a system keeping student, teacher and coordinators at its center.*

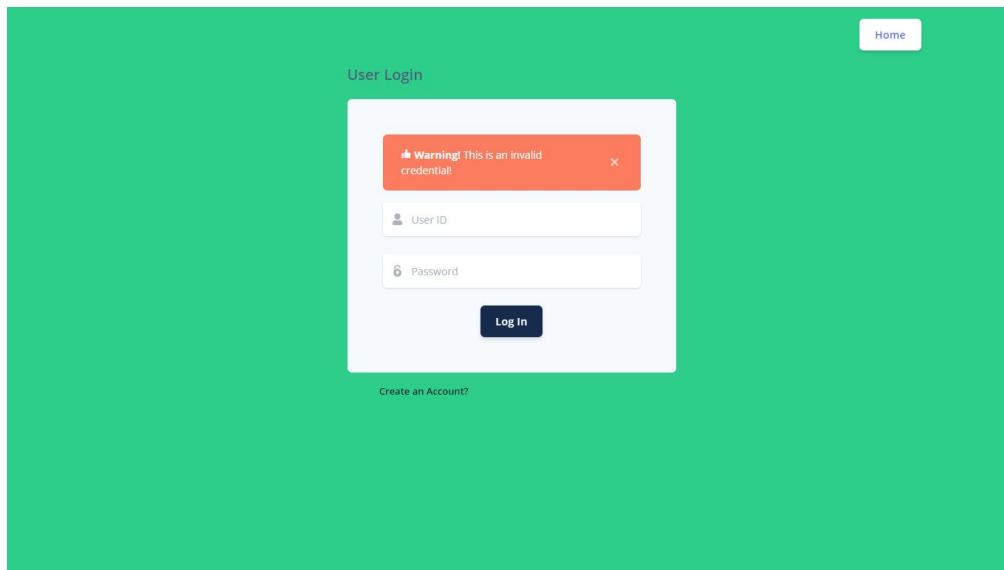
*In order to overcome all the anomalies and difficulties in the existing system, we have developed "Simplify", a project to actually simplify all the Project related activities.*

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## PORTFOLIO



## ERROR MESSAGES AND ALERTS DESIGN



A user login interface on a green background. At the top right is a "Home" button. The "User Login" section contains a light blue box with a red warning message: "Warning! This is an invalid credential!". Below the message are input fields for "User ID" and "Password", and a "Log In" button. At the bottom of the box is a link "Create an Account?".

Home

User Login

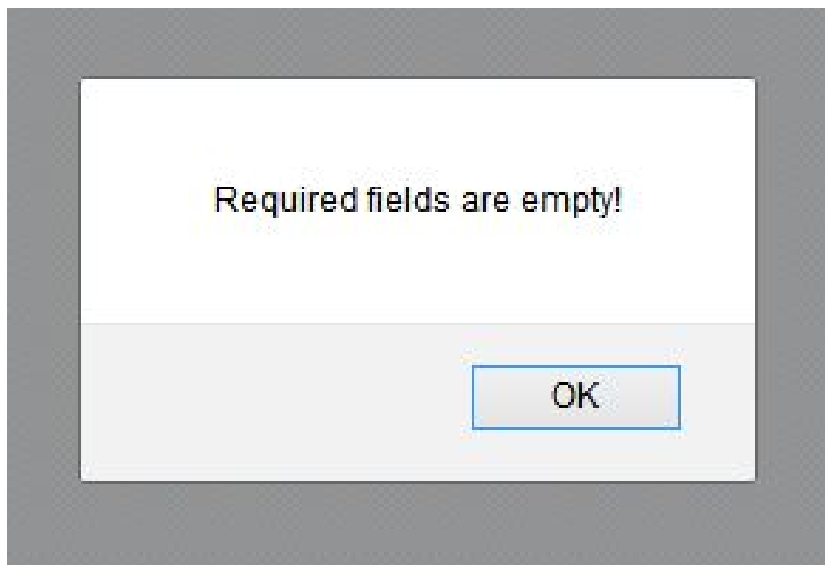
Warning! This is an invalid credential!

User ID

Password

Log In

Create an Account?



A dialog box with a white background and a grey border. The text "Required fields are empty!" is displayed in the center. At the bottom right is an "OK" button.

Required fields are empty!

OK

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## **SYSTEM IMPLEMENTATION**

### **HARDWARE AND SOFTWARE PLATFORM DESCRIPTION**

#### **Hardware:**

Laptop/ PC, keyboard and mouse required.

#### **Software:**

1. Eclipse Photon JEE IDE as editor.
2. MySQL workbench for storing the database.
3. MySQL command line client for accessing the database.
4. Apache Tomcat 8.0 as local host server.

### **FUTURE WORK / EXTENSION**

We intend to implement the system in actual to see how it helps the students, teacher and project coordinators in their activities.

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## CONCLUSION

We intended to solve the various shortcomings and difficulties that were experienced by teachers, students and project coordinators. The existing system of conducting mini project activities throughout the semester involved various challenges which can be solved by making a centralised database system. For this we made a system called “Simplify” which is a project to simplify project management task. It eases the process of activities like presenting reviews by teachers for development of the project, providing notices to the students about the schedule, deadlines and important agendas. Even students are given the facility to keep a track of their progress. The system is developed keeping the teachers, students and coordinators at its center. The whole project revolves around these entities. An important feature of our system is that all students, teachers and coordinators can view the previous year projects so as to avoid repetition of topics and develop some new ideas that can solve some actual real world problems thus impacting the society. The system has a potential to replace the existing paper based excel system which has various drawbacks like data redundancy,, inconsistency in information and different copies at different levels of project management activities. The system helps students to upload their project reports and coordinators and teachers can view the uploaded project reports. There's a facility for students to upload their project via Github thus thereby inculcating actual product development ethics.