ACADEMIC PROJECT MANAGEMENT SYSTEM

Submitted in Partial Fulfillment of the Requirements for

the Degree of **Bachelor of Engineering in Information Technology**

under Pokhara University

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ABSTRACT

Academic Project Management System is a web application that aims to facilitate with systematic arrangement of the documentation as well as the reports and reviews of academic projects from the project submission to project completion. This system aims to establish a web based academic project managing system that gives a platform for interaction between the student and the reviewer.

The system provides a platform that will act as a bridge between the teams that over takes the project and the reviewer. The system makes the documentation easily available for the reviewers as well as provide facility for managing reports and reviews from reviewers and also makes the reviews available to the teams for further process in the project. This system doesn't aim to remove the traditional project activities but it will provide these all facilities in single platform and can be accessed from anywhere and anytime unless the internet connection is available.

Keywords: Academic Project, reviewer, etc.

ACKNOWLEDGEMENT

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1. INTRODUCTION

1.1 BACKGROUND

Academic Projects are student projects carried out as part of their course. Academic Projects are realistic proof of the technical expertise the student gathered over the years of his/her coaching. Academic Project makes transformation of theoretical knowledge and its application. It enriches the knowledge on renewing technologies and also is the milestone for student's future. Academic Project Management System is a web application that manage the academic project defense process by providing a platform for active interaction between the team over taking the project and reviewers throughout the project defense process.

1.2 PROBLEM STATEMENT

Academic Project being an important part in students' course needs to be initiated and completed in time. The project defense plays vital role. Presently, the project defense takes place between the project team and the reviewers where hard copy of the documentation are submitted and still reviews are register based. The main disadvantage of this practice is that the reviewer who are not present in the same geographical place cannot review the project before the defense.

Academic Project management system is not a substitute of the traditional project submission and defense but it may be a helping hand and make the project defense easier with the web based project submission, review management and a platform where the team that over takes the project and the reviewer will be able interact, give feedback and answer the queries through web. It will facilitate multiple reviewers from different parts of world to give feedback based on their expertise that will definitely broaden the team's knowledge.

1.3 PROJECT OBJECTIVE

- To provide a platform for interaction between the team over taking the project and the reviewer.
- To make it possible to upload the project documents by team over taking the project to be reviewed by the interested reviewers.
- To make it easier to review the project from anywhere in the globe.
- Online submission and review tool that is accessible from anywhere at any time unless there is internet connection.

1.4 PROJECT SCOPE

With our system Students' Team over taking the project will be able to

- Upload the proposal, midterm and final project documents and additional system's demo.
- Answer the queries by reviewer and resubmit the documents as demanded by reviewers.

With our system Reviewers will be able to

- Review the project documents they are assigned.
- Ask questions and give feedback.
- Instruct project team for minor or major revision.
- Review if the project is in track.

With our system editor will be able to

- Assign the project submitted by the student team to the reviewer of related field.
- View the information of the student and reviewer.

1.5 SIGNIFICANCE OF STUDY

The study investigates the need of providing a platform for information exchange between the project team and reviewers. With the unavailability of the proper system to exchange information and interact, the reviewers those who are unavailable at the same geographical place are unable to review, give feedback and overall incapable to share their knowledge. So the current situation demands the software developer to extensively study the problem and then find the proper solution for the problems. The study also looks for the similar system that are currently in use and subjects in various users to explore its feasibility and drawback also.

2. LITERATURE REVIEW

2.1 REVIEW

There is no specialized work done to make academic project defense through web, to tackle with this problem, we need a system that can give all the functionality to conduct the academic project through web. The system not only provides the facilities to upload the project documents online but also provides the feedback, questions and answer through web. So we design a system that is beneficial to any kind of education industry where project is a part of students' academics.

2.2 EXISTING SYSTEM

We study the existing system that has been used for the project management in today's date.

- Zoho Projects:
  Zoho Projects is the project management software from Zoho, a brand that enables 15 million users to work online. Businesses large and small, from every industry use the app to deliver great work on time. Plan your projects, assign tasks, communicate effectively, never miss an important update and view detailed reports on progress. You can add unlimited users on all plans at no extra cost.
  Pros:
  - offers a team intranet collaboration area for adding, sharing, and creating documents, spreadsheets, presentations, and videos, all of which can all be managed in one place
  - project collaboration that is executed from the browser

- Teamwork:
  It has collaboration and integration tools to help students share information and documents with ease. Teamwork also integrates with Google Drive, which is great for teams who are already using it to store their documents. Teamwork has a central file-management system, so you can upload and store documents within your account.
  Pros:
  - You can plan ahead and track your and your team's progression. Use Teamwork's Gantt Charts, reporting, and time tracking features to keep you in the know.

- Basecamp:
  Basecamp also helps to keep the lines of communication open within your group with a designated discussion area, along with the ability to comment directly on files or tasks.
  Pros:
  - Basecamp is system for sharing ideas, proposals, or organize reference conversations, and make sure all team members are on the same page.

  Cons:
  - Zoho Projects, Teamwork and Basecamp is that they offer the facilities to manage the team members and help in their collaboration but they lack the features for interaction between the reviewers of the project.

- Submittable:
  It is a system that make submission of journals that are of unlimited categories and any type of files easier. Helps in management of the team and track everything related to the submission received, including any submitter communication.
  Pros: It allows the submission of the journals and help in team management and track submission and submitter communication

- Editorial Manager:
  EM is an online submission and peer review tracking tool, accessible from anywhere at any time if you have internet connection. All relevant information and correspondence can be stored under the manuscript record. It manages the flow of scholarly manuscripts from submission to acceptance.
  Pros:
  It manages the flow of scholarly manuscripts from submission to acceptance.

  Cons:
  Cons of Submittable and Editorial Manager is that they allow the submission of the journals and any scholarly manuscripts for being reviewed before submission. They do not have any facilities to upload or review the academic projects based on the proposal, midterm and final documents.

In today's date, the project defense, either they be proposal, mid-term or final project defense, are taken in a place where both the students team and the reviewer are present in same place and the hard copy of the document is reviewed by the reviewer.

2.3 COMPARISON WITH THE EXISTING SYSTEM

Academic Project Management System will be able to facilitate the user and provide them with all the facilities the flow of information from project document submission to completion of project. This system has three parts, proposal, mid-term and final, where the project needs to be submitted, reviewed and revised accordingly. The project team can upload their project and the reviewer can choose the project they are interested at. Over all this system is an online submission and review tool that is accessible from anywhere at any time unless there is internet connection.

3. TEAM MEMBERS AND DIVIDED ROLES

NAME	ROLES	RESPONSIBILITIES
Sawan Maharjan	• Project Leader • Security and Authorizations • System Designer and Developer	• Review and approve all project deliverables (Initiation Plan, Detailed Plan, Testing etc.) • Provide overall project oversight • Ensures business and functional decisions are made to ensure technical development progress and Completion • Create and Maintain system security (authentication, user profiles, assignment of users to profiles) • Define and execute development requirement
Rabina Chaudhary	• System Developer • End user Documentation	• Define and execute development requirement • Participate in testing • Develop Documentation
Bikesh Maharjan	• **Testing**	• **Participate in testing**

Table 1: Roles of team members

4. REQUIREMENT:

4.1 REQUIREMENT ANALYSIS:

Requirement analysis, in software engineering encompasses those tasks that go into determining the need and conditions to meet for a new or altered product, taking account of possibly conflicting requirements of the various stakeholders, such as beneficiaries and users. It is the early stage activity of requirement engineering which encompasses all activities concerned with eliciting, analyzing, documenting, validating and managing system requirements.

4.2.1 FUNCTIONAL REQUIREMENTS:

- Provide student and reviewer platform for interaction.
- Provide platform for submission and review of the project documents.
- Allow users to view the list of the submitted documents from respective college.
- Assign reviewer for project document having expertise in related field.
- Create database to store and extract the list of documents.

➢ Data Entry Method

- Direct Entry using keyboard

  The user information (student, reviewer and editor) as well as the project documents are entered through keyboard.

➢ Backup facility

- User may use backup of the records for security purpose. This may be through hard copy or soft copy output of the report.

➢ Output to User

- Soft Output Requirements

  Methods of displaying records
  - Browser

- Hard Output Requirements

  Basically hard copy output is obtained in printed form.

➢ Interface required

o Login and register Window

Users (Student, Reviewer and Editor) can use login window if they already have an account. If they don't, register window will be used to let user sign up for their respective account.

o Information viewing windows

This allows the student to view the list of documents uploaded, feedback and queries given to them. It allows the reviewer to view the list of documents and review the assigned project document and view the answer of their queries by the student team. Likewise, it allows the editor to view the information if the students and the reviewer and assign the project document to the reviewer.

o User profile window

It is used to display the profile of the user containing only the information which user has shared with the system.

4.1.2 INPUT REQUIREMENTS:

- Data Requirements:
  The data to be input are:
  - User Details: This contains the information about the users (student, reviewer and the editor) of the system.
  - Document Details: This contains the project information. It contains the project name, abstract as well as the complete project document.
  - Feedback: This contains the feedback given by the reviewer after the document is reviewed.
  - Queries: This contains the questions that the reviewer ask the project team after reviewing the document.
  - Answer: This contains the answers of the queries replied by the student team.

- Source of data:
  The information will be given by user themselves. They are the information about the users (student, reviewer and editor. The document will be added by the student. The information about student and reviewer will be updated by the editor.

S.N	INPUT	DATATYPE	LENGTH	DESCRIPTION
1.	Student_id	int	11	It is unique id of the student.

2.	Student_fname	varchar	50	It is the first name of student.
3.	Student_lname	varchar	50	It is the last name of student.
4.	Student_gender	Varchar	2	It is gender of student.
5.	Student_uname	Varchar	50	It is username of student.
6.	Student_email	Varchar	100	It is email of student.
7.	Student_password	Varchar	50	It is of password to enter the system.
8.	Student_college	Varchar	100	It is college of student
9.	Student_program	Varchar	20	It is program that the student is admitted to.
10.	Student_address	Varchar	50	It is address of student.
11.	Student_phone	varchar	10	It is phone number of student.
12.	Student_pic		100	It is picture of the student

Table 2: Table of student.

S.N	INPUT	DATATYPE	LENGTH	DESCRIPTION
1.	Reviewer_id	Int	11	It is unique id of reviewer
2.	Reviewer_fname	varchar	50	It is first name of reviewer.
3.	Reviewer_lname	varchar	50	It is last name of reviewer.
4.	Reviewer_uname	Varchar	50	It is user name of reviewer.
5.	Reviewer_gender	Varchar	2	It is gender of reviewer.
6.	Reviewer_email	Varchar	100	It is email of reviewer.
7.	Reviewer_pass	Varchar	50	It is password of reviewer to enter the system.
8.	Reviewer_address	Varchar	100	It is address of reviewer.
9.	Reviewer_phone	Varchar	10	It is phone number of reviewer.
10.	Reviewer_area	Varchar	50	It is area of expertise of reviewer.
11.	Reviewer_pic	varchar	100	It is picture of reviewer.

Table 3:Table Of Reviewer

S.N	INPUT	DATATYPE	LENGTH	DESCRIPTION

1.	Pr_id	int	11	It is the project reviewer id for the assigned project.
2.	Project_name	varchar	100	It is the name of the project assigned to the reviewer.
3.	Project_id	int	11	It is the project id of the project to be reviewed.
4.	Pr_[num]	int	11	It is the numbers of reviewers to review the project.

Table 4: Table for Reviewers assigned to the projects

S.N	INPUT	DATATYPE	LENGTH	DESCRIPTION
1.	Editor_id	Int	11	It is unique id of editor.
2.	Editor_fname	varchar	50	It is first name of editor.
3.	Editor_lname	Varchar	50	It is last name of editor.
4.	Editor_gender	Varchar	2	It is gender of editor.
5.	Editor_uname	Varchar	50	It is user name of editor.
6.	Editor_email	Varchar	100	It is email address of editor.
7.	Editor_pass	Varchar	50	It is password of editor to enter the system.
8.	Editor_address	Varchar	100	It is address of editor.
9.	Editor_phone	Varchar	10	It is phone number of editor.
10.	Editor_college	Varchar	100	It is college of editor that they are assigned.
11.	Editor_pic	varchar	100	It is picture of editor.

Table 5: Table For Editor

S.N	INPUT	DATATYPE	LENGTH	DESCRIPTION
1.	Project_id	int	11	It is unique id of project.
2.	Project_name	varchar	100	It is name of project.
3.	Project_state	Varchar	20	It is whether the project is in proposal, midterm or final.
4.	Project_abstract	Varchar	1000	It is the abtract of project.
5.	Project_filename	Varchar	100	It is file name that is given by the author.
6.	Project_filetype	Varchar	100	It is the type of the file.
7.	Project_filepath	Varchar	50	It is the path where the file is stored.

8.	Project_supervisor	Varchar	100	It is the supervisor assigned to the project.
9.	Submittedby	Varchar	100	It is the name of the student who submitted the project document.
10	Submitteddate	date	standard	It is the submitted date.
11.	Project_status	varchar	50	It is wheather the project is complete or incomplete.

Table 6: Table for document

S.N	INPUT	DATATYPE	LENGTH	DESCRIPTION
1.	Query_id	int	11	It is id of query.
2.	Query_pname	varchar	100	It is the project name which is queried.
3.	Query_pid	int	11	It is project id of project document which is queried.
4.	Query_plevel	varchar	20	It is whether the document is proposal, midterm or final.
5.	Query_date	date	Standard	It is the date of query.
6.	Query_filepath	varchar	100	It is the path of query stored.
7.	Query_by	varchar	100	It is the name of reviewer who made query.

Table 7: Table for query

S.N	INPUT	DATATYPE	LENGTH	DESCRIPTION
1.	Fed_id	Int	11	It is the id of feedback
2.	Fed_pname	Varchar	50	It is the project name in which feedback is given.
3.	Fed_plevel	Varchar	20	It is whether the document is proposal, midterm or final.
4.	Fed_date	Date	Standard	It is the date of feedback given.
5.	Fed_filepath	Varchar	100	It is the path of feedback.
6	Fed_fbby	varchar	50	It is the name of the reviewer who has given feedback.

Table 8: Table for feedback

S.N	INPUT	DATATYPE	LENGTH	DESCRIPTION

1.	ans_id	Int	11	It is id of answer.
2.	ans_pname	Varchar	100	It is the project name whose queries is answered.
3.	ans_pid	varchar	11	It is the project id whose queries is answered.
4.	ans_plevel	Varchar	50	It is whether the document is proposal, midterm or final.
5.	ans_filepath	Varchar	100	It is the path of answer.
6.	ans_rev	Varchar	50	It is the name of the reviewer to whom answer is to be sent.

Table 9: Table for Answers

S.N	INPUT	DATATYPE	LENGTH	DESCRIPTION
1.	Msg_id	int	11	It is the id of message.
2.	Msg_name	varchar	50	It is the name of message.
3.	Msg_type	Varchar	50	It is whether it is message or notice.
4.	Msg_info	Varchar	100	It is the subject of message.
5.	Msg_file	Varchar	1000	It is the actual message to be sent.
6.	Msg_sendto	Varchar	50	It is the name of student or reviewer to whom message is to be sent.
7.	Msg_sentby	varchar	50	It is the name of editor who sends message.

Table 10: Table for notice or message

4.1.3 OUTPUT REQUIREMENTS:

The operator requires following output from the system:

1. Detail information of places

2. Details of plans made by authorized user

The student requires the following output from the system:

1. List of the projects submitted from the respective college.
2. List of the feedbacks and queries from the reviewer.

The reviewer requires the following output from the system:

1. List of the submitted documents from the respective college.
2. List of documents to be reviewed.
3. Answers of the feedbacks and queries.
4. List of revised documents as demanded.

The Editor requires the following output from the system:

1. Information of students and reviewers.
2. List of documents submitted and the information of reviewers interested.

4.1.4. SECURITY REQUIREMENTS:

The system should be protected from unauthorized users and unauthorized access. Hence, for providing security, passwords are encrypted and stored in database using DES Encryption and Decryption protocol. Adoption of this protocol to encrypt and decrypt passwords keeps the passwords safe from the intruders.

- DES Encryption and Decryption:

DES Encryption and Decryption protocol use same key to encrypt and decrypt the text which is known as private key. Hence the sender and receiver uses same private key that is only shared between sender and receiver to encrypt and decrypt the text.

The Data Encryption Standard is a block cipher, meaning a cryptographic key and algorithm are applied to a block of data simultaneously rather than one bit at a time. To encrypt a plaintext message, DES groups it into 64-bit blocks. Each block is enciphered using the secret key into a 64-bit cipher text by means of permutation and substitution. The process involves 16 rounds and can run in four different modes, encrypting blocks individually or making each cipher block dependent on all the previous blocks. Decryption is simply the inverse of encryption, following the same steps but reversing the order in which the keys are applied. For any cipher, the most basic method of attack is brute force, which involves trying each key until you find the right one. The length of the key determines the number of possible keys -- and hence the feasibility -- of this type of attack. DES uses a 64-bit key, but eight of those bits are used for parity checks, effectively limiting the key to 56-bits. Hence, it would take a maximum of 2^56, or 72,057,594,037,927,936, attempts to find the correct key.

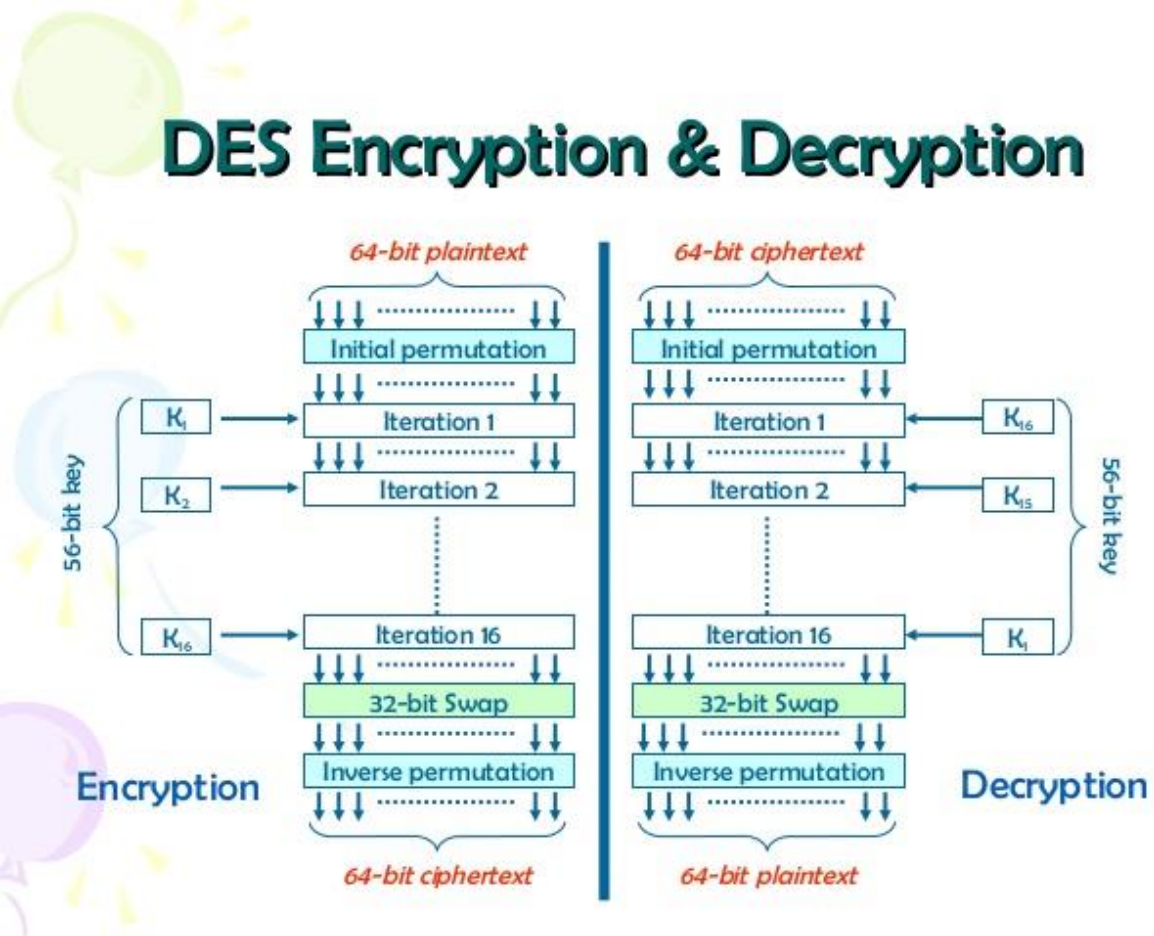

Figure 1: DES Encryption and Decryption protocol

5. PROPOSED METHODOLOGY:

5.1 SOFTWARE DEVELOPMENT PROCESS:

The framework we propose in development of this software is "incremental model", i.e. a method for software development where the product is designed, implemented, and tested incrementally. This model combines the elements of waterfall model with iterative philosophy of prototyping i.e. multiple development cycles take place here, making the life cycle a multi-waterfall cycle. In Incremental model the whole requirement is divided int various builds.

When an incremental model is used, the first increment is often a core product. That is, basic requirements are addressed, but many supplementary features (some known, others unknown) remain undelivered. The core product is used by the customer (or undergoes detailed review). As a result of use and/or evaluation, a plan is developed for the next increment. The plan addresses

the modification of the core product to better meet the needs of the customer and the delivery of additional features and functionality. This process is repeated following the delivery of each increment, until the complete product is produced.

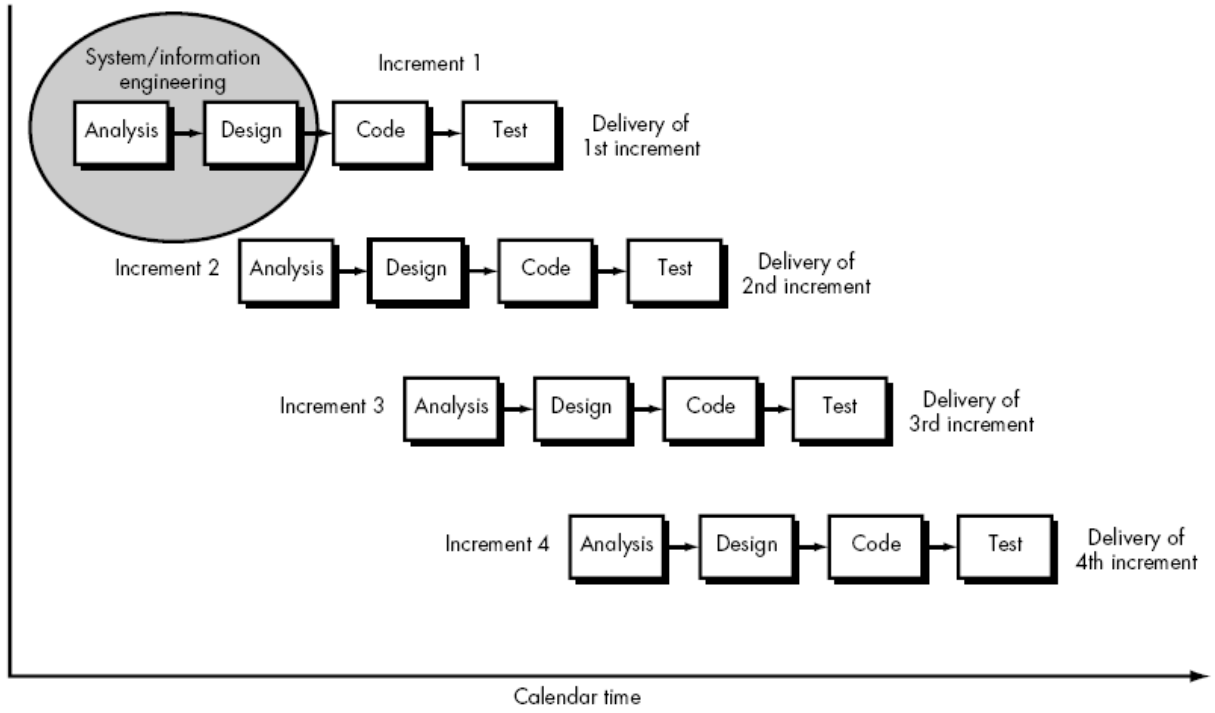

Figure 2. Incremental model

Phases:

ANALYSIS PHASE

In this phase, analysis was performed in order to find out the requirements of the system. The outcome of this phase would be a SRS which is an acronym for "System Requirement Specifications".

DESIGN PHASE

In this phase the SRS would be translated into the system's design. Context Diagram, DFD, ER – Diagram, Use Case Diagram and Sequence Diagram will be developed.

CODING PHASE

In this phase, coding would be done according to the design and a working system is achieved/ developed by the end of this process.

TESTING PHASE

In this phase, the system would be tested. With each testing a list of changes to the system developed, is suggested and the changes will be applied to the software and the software would be delivered as a successive increment until a satisfying system is achieved. .

Activities:

- First Iteration:
    - In first iteration, we collected the requirement and analyzed if the project is feasible or not. We made login and registration form for student portal, reviewer portal and editor portal. In addition to that we added authorization and encryption to the password.
- Second Iteration:
    - In Second Iteration, we developed student portal and added the feature to upload the project documents by the students. The students were able to view the list of the projects uploaded from the same college.
- Third Iteration:
    - In third iteration, we made reviewer portal and editor portal. The reviewers were able to view and download the projects assigned to them by the editor. As well as they could give feedback and query about the projects. The students were able to view the feedback and answer the query. Likewise, the editor could assign the project to reviewer according to their field of expertise to review the project document.

Advantages of Incremental model:

- Generates working software quickly and early during the software life cycle.
- This model is more flexible – less costly to change scope and requirements.
- It is easier to test and debug during a smaller iteration.
- In this model customer can respond to each built.
- Lowers initial delivery cost.
- Easier to manage risk because risky pieces are identified and handled during iteration.

Disadvantages of Incremental model:

- Needs good planning and design.
- Needs a clear and complete definition of the whole system before it can be broken down and built incrementally.
- Total cost is higher than waterfall.

When to use the Incremental model:

- This model can be used if the requirements of the system are clearly defined & understood.
- Major requirements must be defined; however, some details can evolve with time.
- There is a need to get a product to the market early.

- Resources with needed skill set are not available.

5.2 TOOLS TO BE USED

- PHP, HTML, CSS for Web application development
- Adobe Photoshop CS for Designing UI
- Edraw Max for Design diagram
- Xamp for Creating local server and database

5.3 PROJECT DELIVERABLES

- Project team will be able to upload their project document and related demos.
- They will be able to answer the queries and resubmit the revised document as demanded by reviewer.
- The reviewer will be able to review, give feedback and overall judge the project through web.
- The editor will be able to manage the project team and reviewer. And assign the project to reviewer with related expertise.

6. SYSTEM DESIGN

System design is sequence of steps that enables the designer to describe all aspects of the software to be built. We have made attempt to make sure that the system design conforms the user requirements of the system.

6.1 CONTEXT DIAGRAM

The context diagram represents the overall explanation of the system “Academic Project Management System”. The objective of the system context diagram is to focus attention on external factors and events that should be considered in developing a complete set of systems requirements and constraints. The system has been shown in diagrammatic process below:

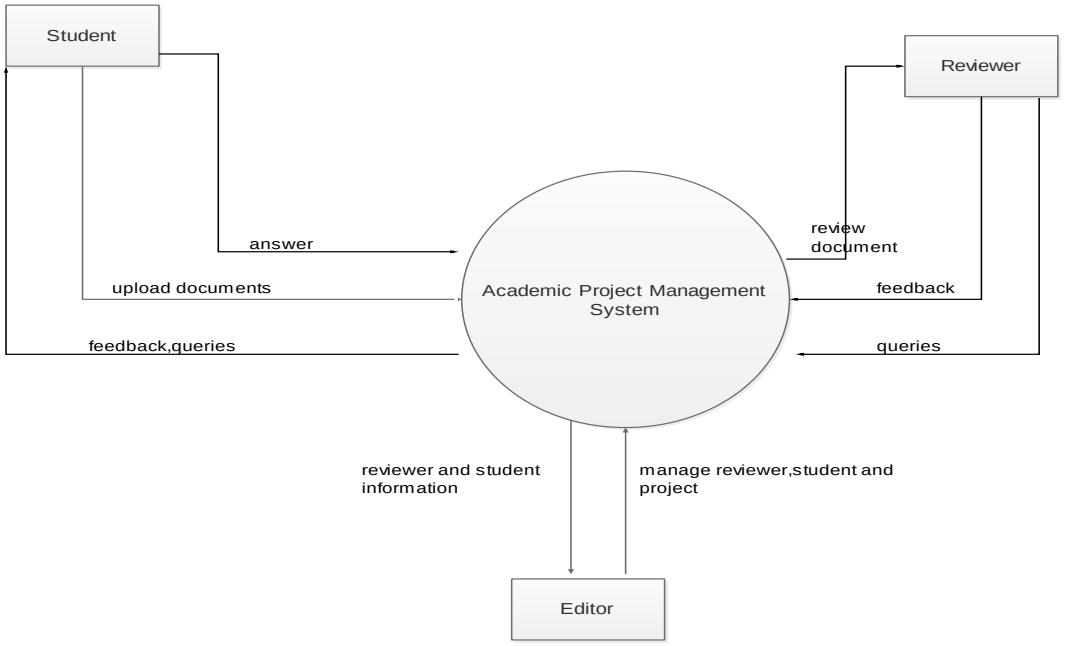

Figure 3. Context Diagram

6.2 DATAFLOW DIAGRAM

A data flow diagram (DFD) is a graphical representation of the "flow" of data through an information system, modelling its process aspects. We used DFD as a preliminary step to create an overview of the system, which can later be elaborated also be used for the visualization of data processing (structured design).

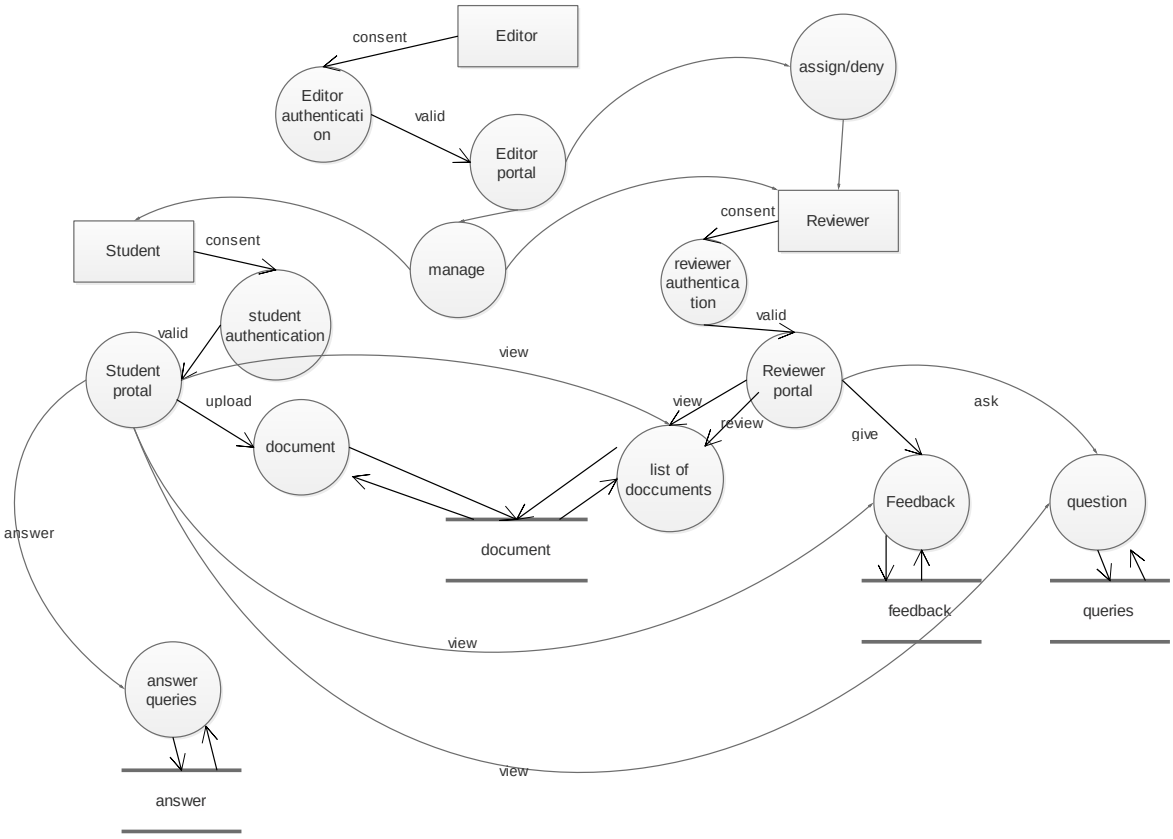

Figure 4: Data flow diagram

6.3 USE CASE DIAGRAM

A use case diagram at its simplest is a representation of a user's interaction with the system that shows the relationship between the user and the different use cases in which the user is involved. The following figure shows the interactions between the roles involved and the Academic Project Management System.

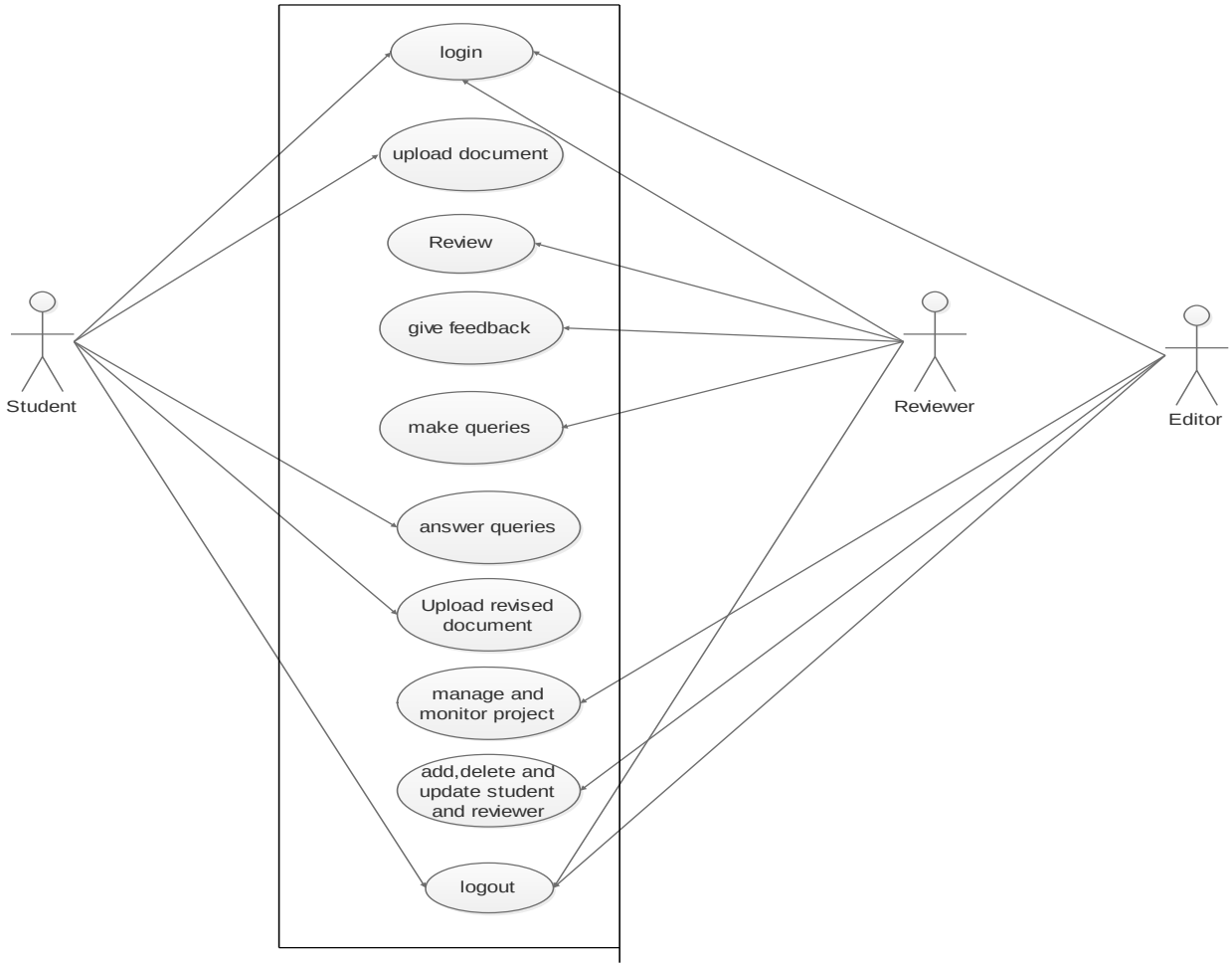

Figure 5: Use Case Diagram

6.4 E-R DIAGRAM

An entity-relationship diagram (ERD) is a graphical representation of an information system that shows the relationship between people, objects, places, concepts or events within that system. [5]

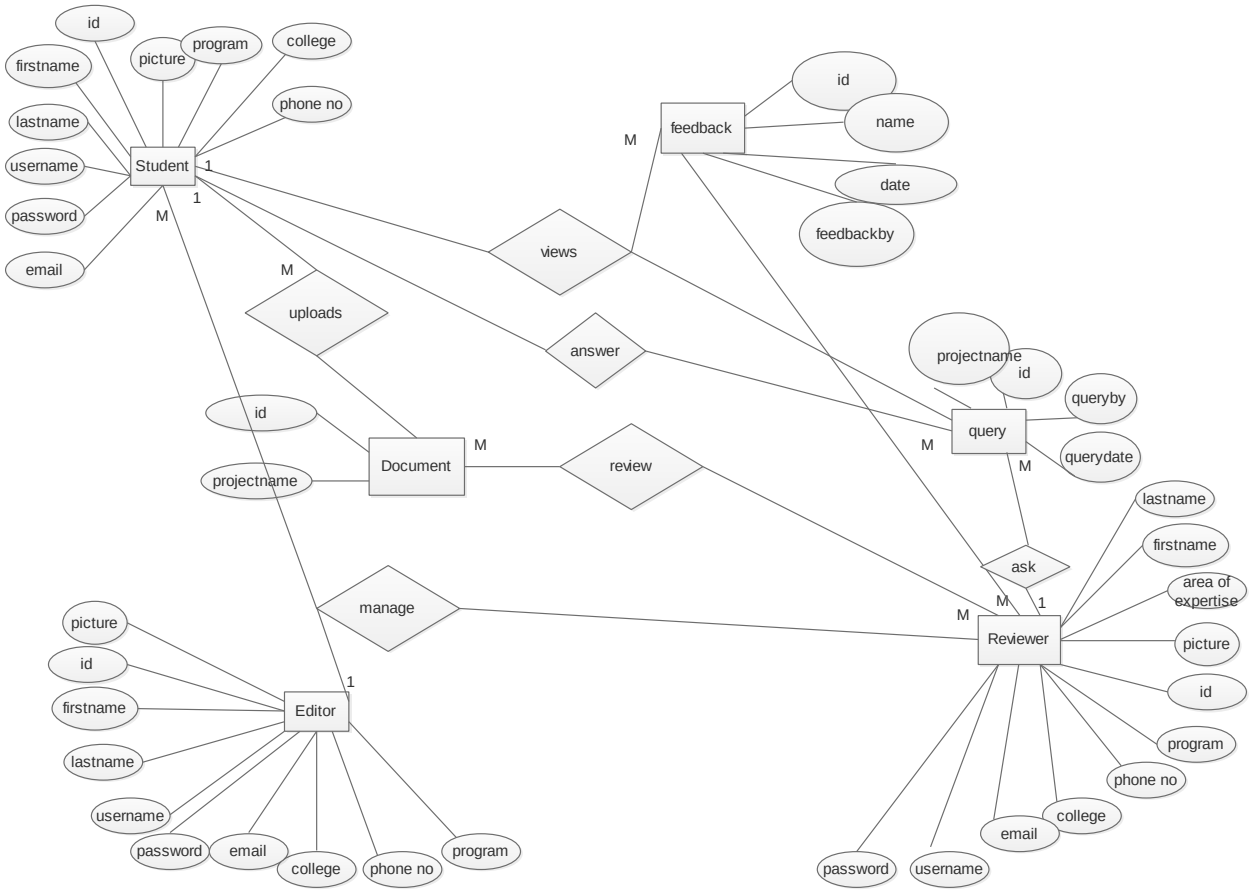

Figure 6: ER diagram

6.5 SEQUENCE DIAGRAM

A Sequence diagram is an interaction diagram that shows how processes operate with one another and in what order.

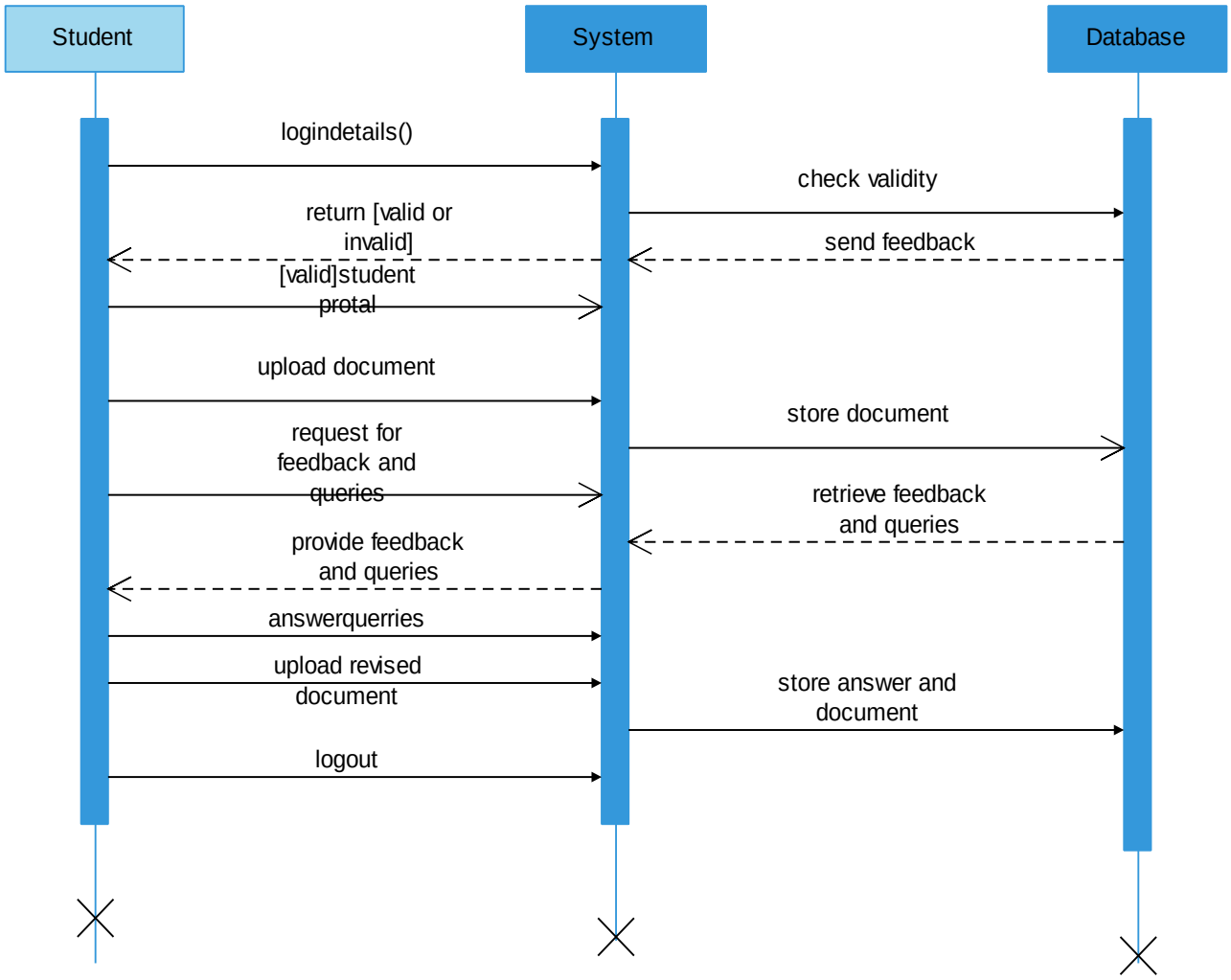

Figure 7: Sequence Diagram for student

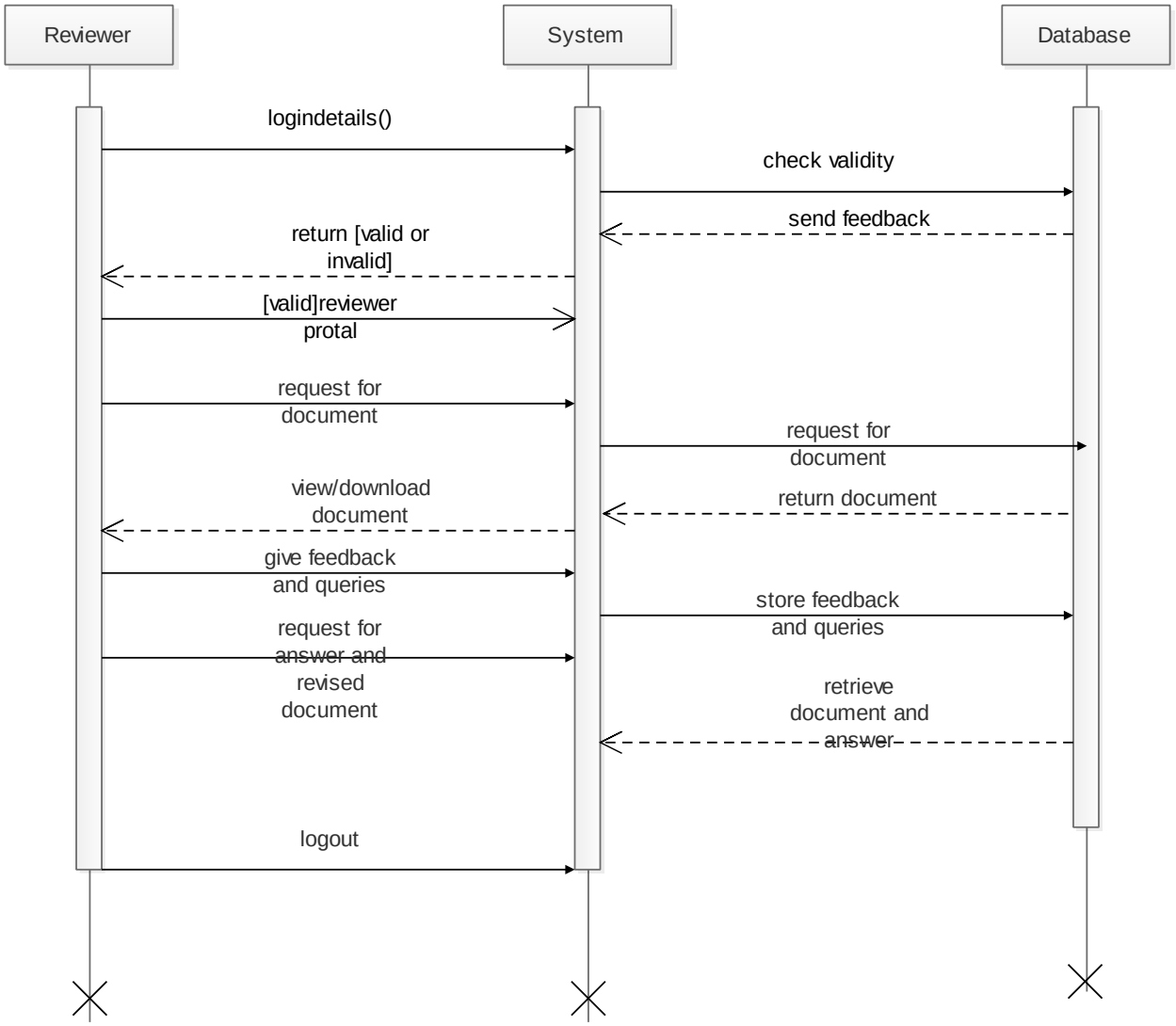

Figure 8: Sequence Diagram for Reviewer

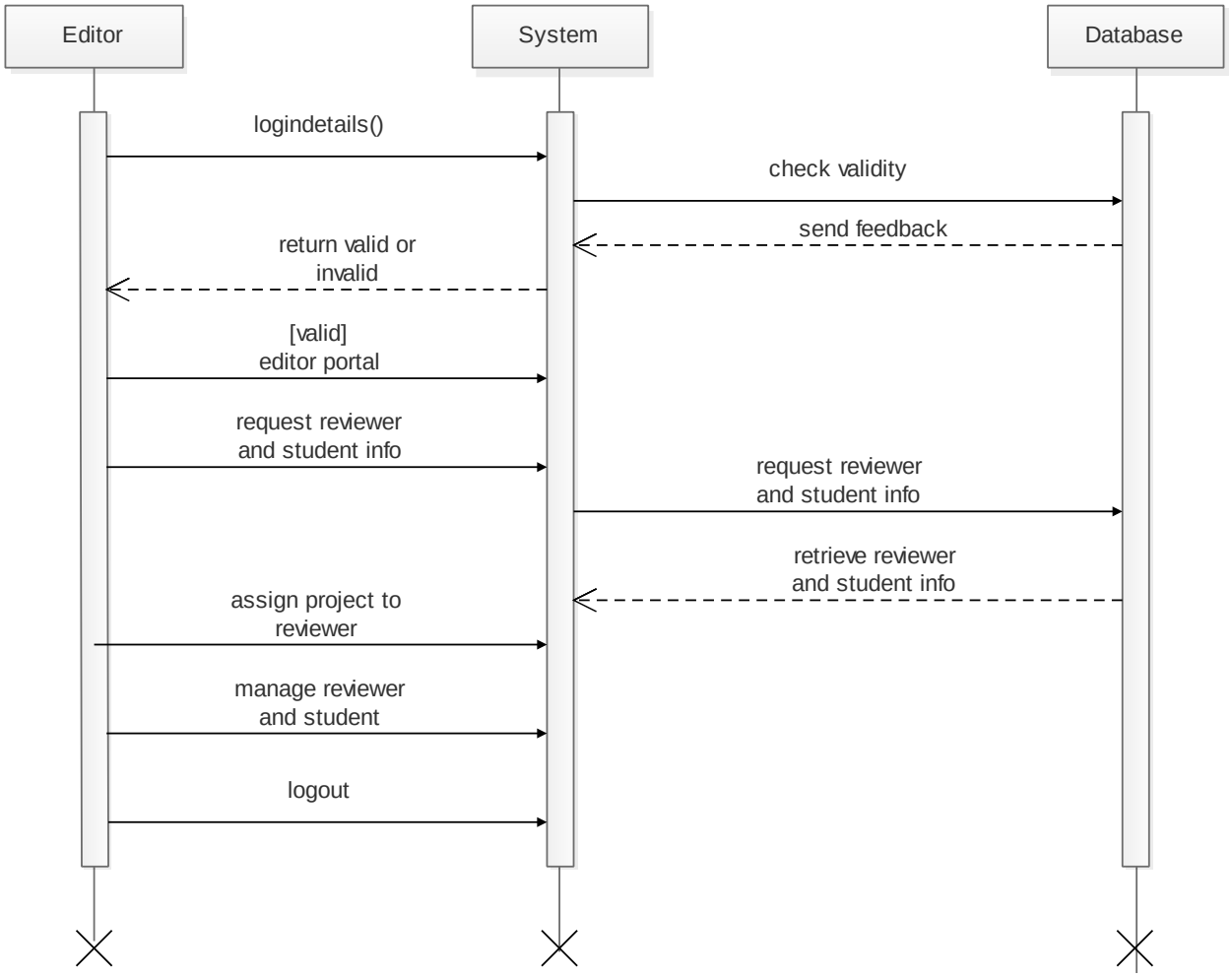

Figure 9: Sequence Diagram for Editor

6.6 ACTIVITY DIAGRAMS

An activity diagram shows the workflow from the start point to finish point. It is used to display the sequence of activities. We have three activity diagrams for our system.

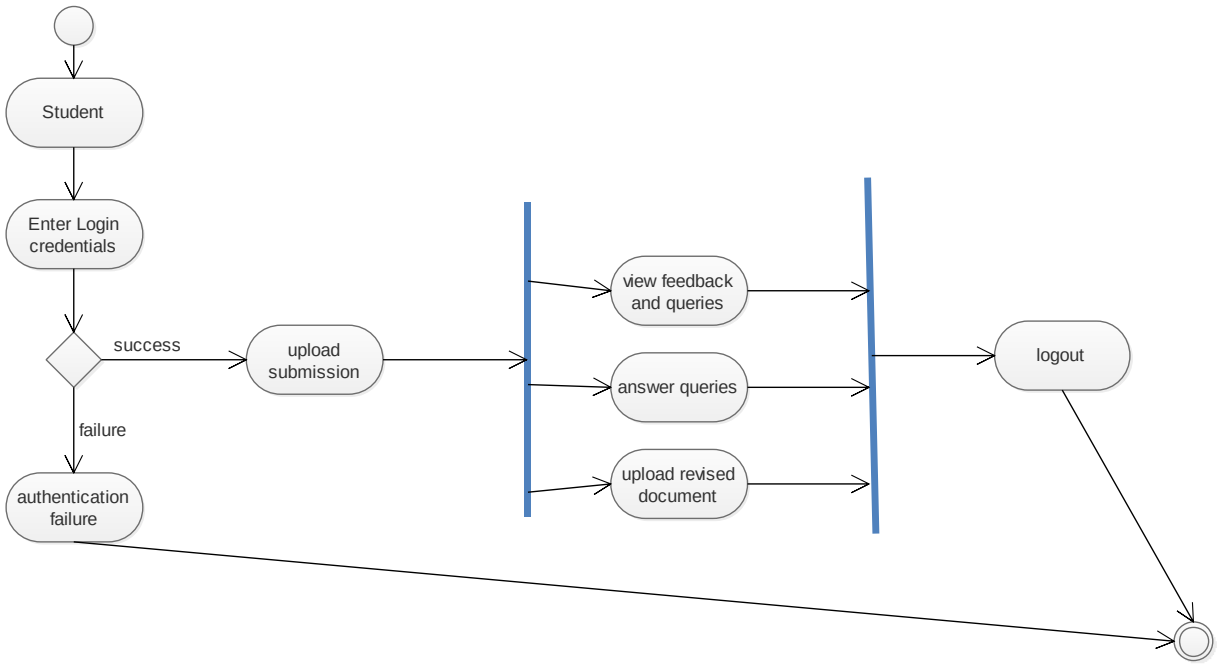

Figure 10: Activity diagram of Student

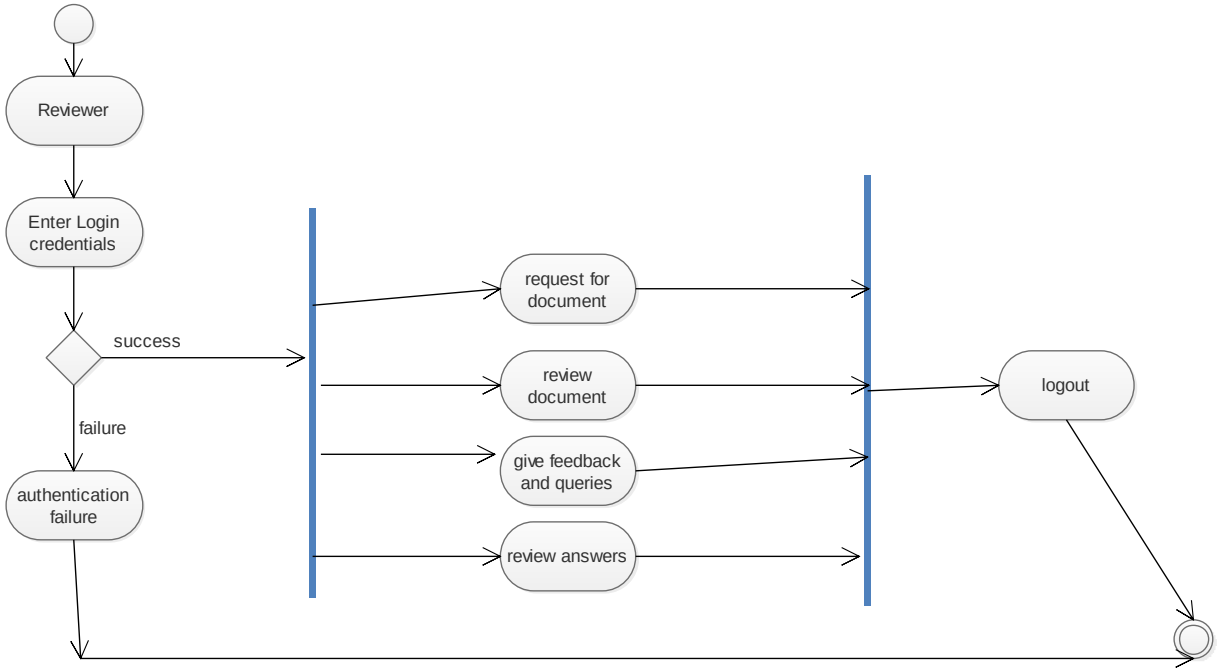

Figure 11: Activity Diagram of reviewer

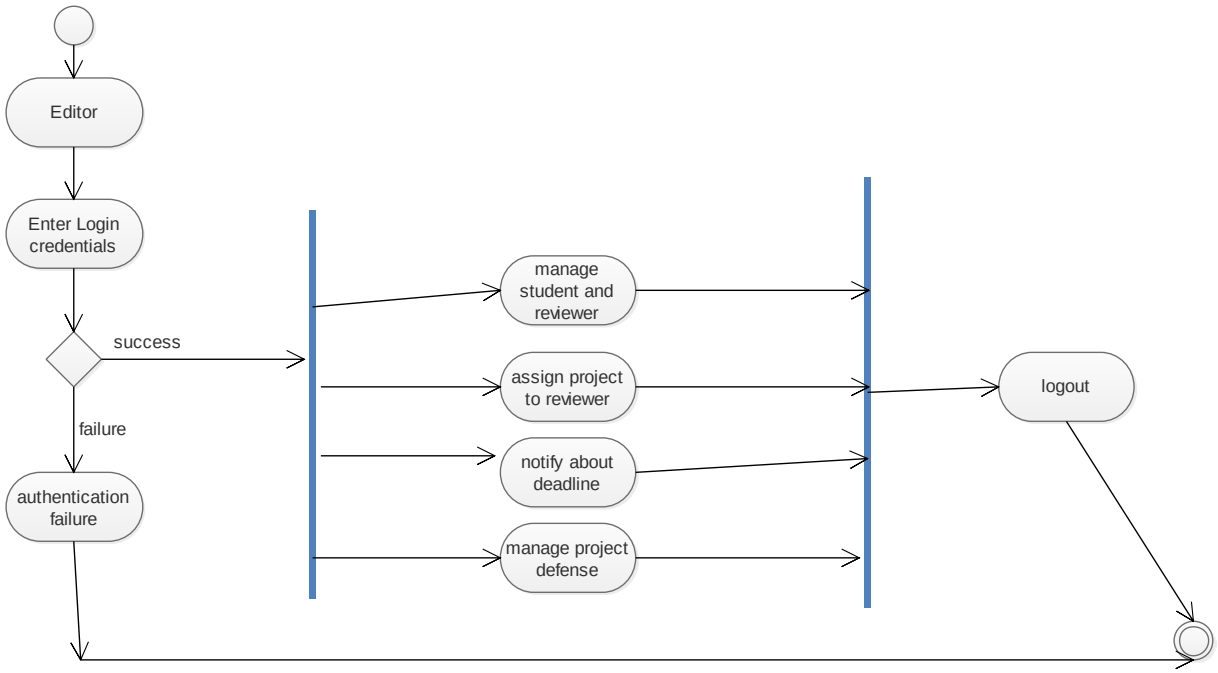

Figure 12: Activity diagram of Editor

7. BUDGET

7.1. FUNCTION POINT

Function points are basic data from which productivity metrics could be computed. Function point metric is used to collect direct measure of software engineering not only according to size but also according to functionality.

Information Domain Values	Count	Weighted Value	Total Count (weight*count)
No of User Inputs	35	4	140
No of User Output	5	5	25
No of User Inquiries	3	4	12
No of Logical Files	5	10	50
No of External Interfaces	1	7	7
Count Total			234

The value of Complexity Multiplier ranges from 0.65 to 1.35. Since, our project is average, the value of the Complexity Multiplier used is average. i.e. We have assumed an average value as 1.17

Function Point (FP) = Count Total * Complexity Multiplier

= 234 * [0.65 + 0.01 *$\sum_{i=1}^{14} fi$]

= 234* 1.17

= 273.78

≈ 274

Average productivity = 10 FP / pm

Labor Rate = Rs 5000per month

Effort = Function Point (FP) / Average productivity

= 274 / 10

= 27.4

≈ 27

Total Project Cost = FP * (Labor Rate/ Average Productivity)

= 274 * 5000/10

= Rs 1, 37,000

- **Number of user inputs**:
  Each user input that provides distinct application oriented data to the software is counted.
- **Number of user outputs**:
  Each user output that provides application oriented information to the user is counted. In this context "output" refers to reports, screens, error messages, etc. Individual data items within a report are not counted separately.
- **Number of user inquiries**:
  An inquiry is defined as an on-line input that results in the generation of some immediate software response in the form of an on-line output. Each distinct inquiry is counted.
- **Number of files**:
  Each logical master file is counted.
- **Number of external interfaces**:
  All machine-readable interfaces that are used to transmit information to another system are counted.

7.2. LINE OF CODE

LOC (Lines of Code) is a simple and straight forward way of counting the productivity of a programmer in a given time period. Using Lines of Code metric, the project size is estimated by counting the number of source instructions in the developed program.

Estimated LOC = 2806

Average Productivity = 100 LOC/pm

Labor Rate = Rs 5000 per month

Now,

Estimated Project Cost = Estimated LOC * Cost per LOC

= 2806 * (Labor Rate / Average Productivity)

= 2806 * 5000 / 100

= Rs 140300

8. TESTING

Testing is important phase to ensure that the system meets the requirements that guided its design and development, responds correctly to all kinds of inputs and achieves the general result its stakeholders desire. We wanted to evaluate our system (Academic Project Management System) to make sure that all the developed elements worked properly. For this test plan of our work was created, in which elements such as validation, reliability and user acceptance was tested. The system was tested for normal condition, primarily. Testing was performed on each unit.

TEST NO.	FORM	TEST	EXPECTED RESULT	ACTUAL RESULT	EVIDENCE	RESULT
1.	Login	Incorrect Username/Password	Username/Password do not match	Username/Password do not match	Test 1.1	Failed
2.	Login	Correct Username/Password	Successfully logged in. Welcome username.	Successfully logged in. Welcome Username.	Test 1.2	Passed
3.	Signup	Correct information.	Signup successful.	Signup successful.	Test 2.1	Passed
4.	Signup	Valid Username.	Username accepted.	Username accepted.	Test 2.1.1	Passed
5.	Signup	Invalid Username.	Invalid Username.	Invalid Username.	Test 2.2.1	Failed
6.	Signup	Matched Password.	Password Matched.	Password Matched.	Test 2.1.2	Passed
7.	Signup	Unmatched Password	Password do not match.	Password do not match.	Test 2.2.2	Failed
8.	Signup	Valid email	Valid email address.	Valid email address.	Test 2.1.3	Passed
9.	Signup	Invalid email	Invalid email address	Invalid email address	Test 2.2.3	Failed
10.	Submit Document	Submit Document success				

Table 11: Table for Test

Test 1.

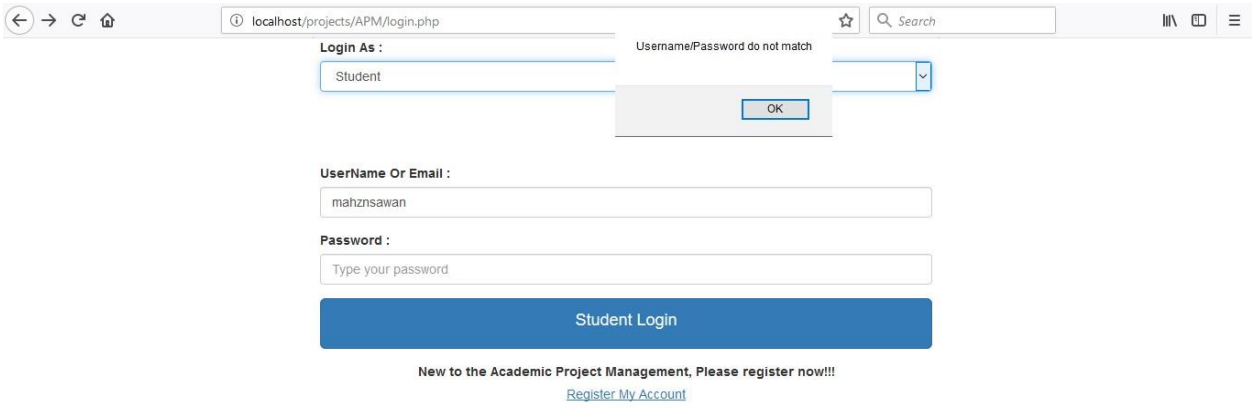

Figure 13: Login Unsuccessful

Test 2.

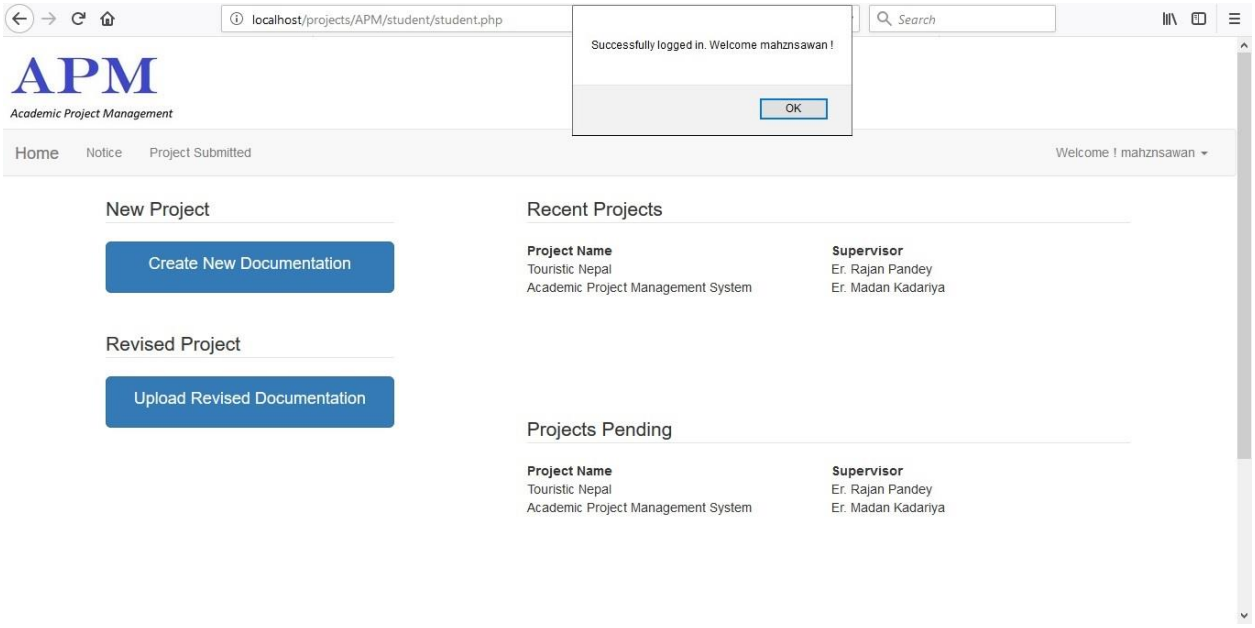

Figure 14: Login Successful for Student

Test 3.

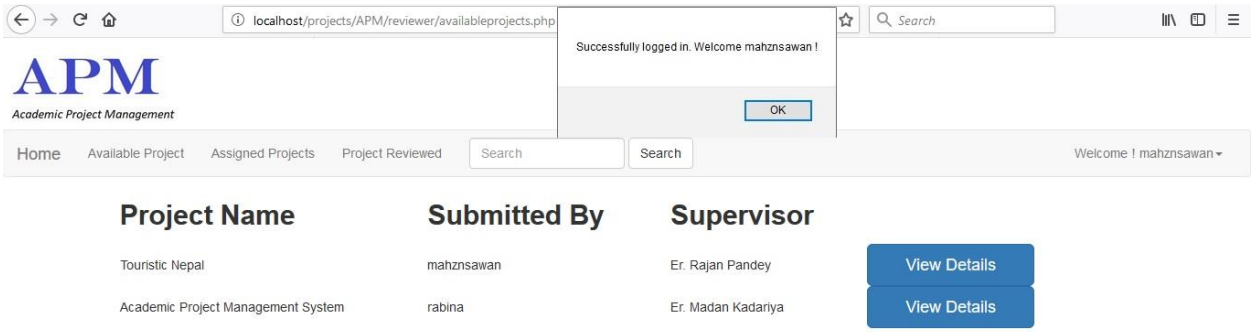

Figure 15: Login Successful for Reviewer

Test 4.

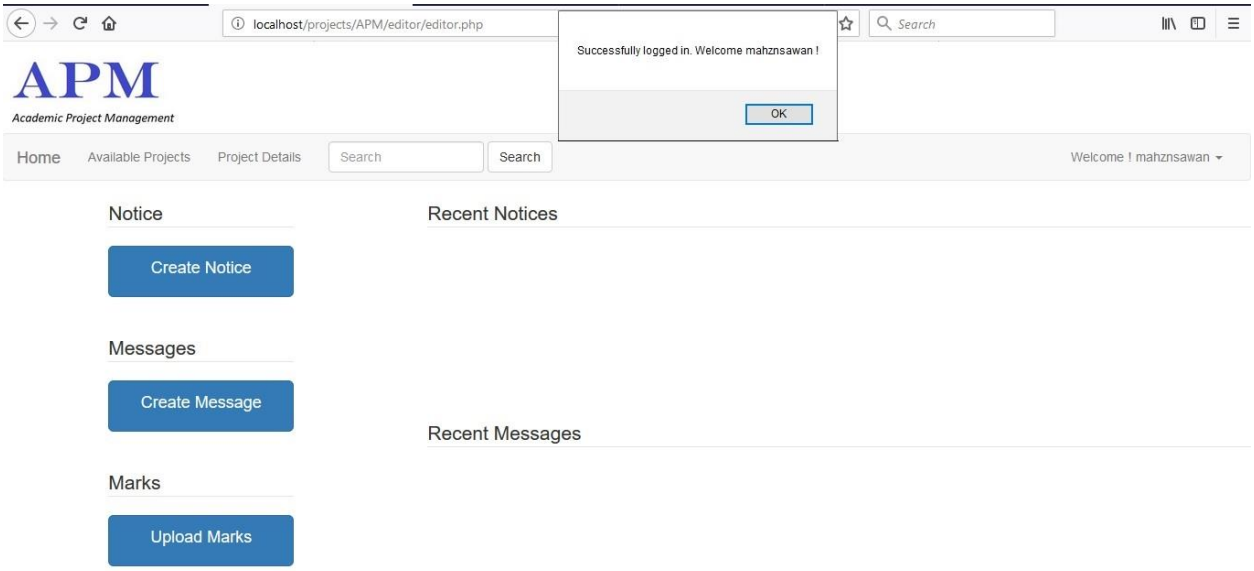

Figure 16: Login Successful for Editor

Test 5.

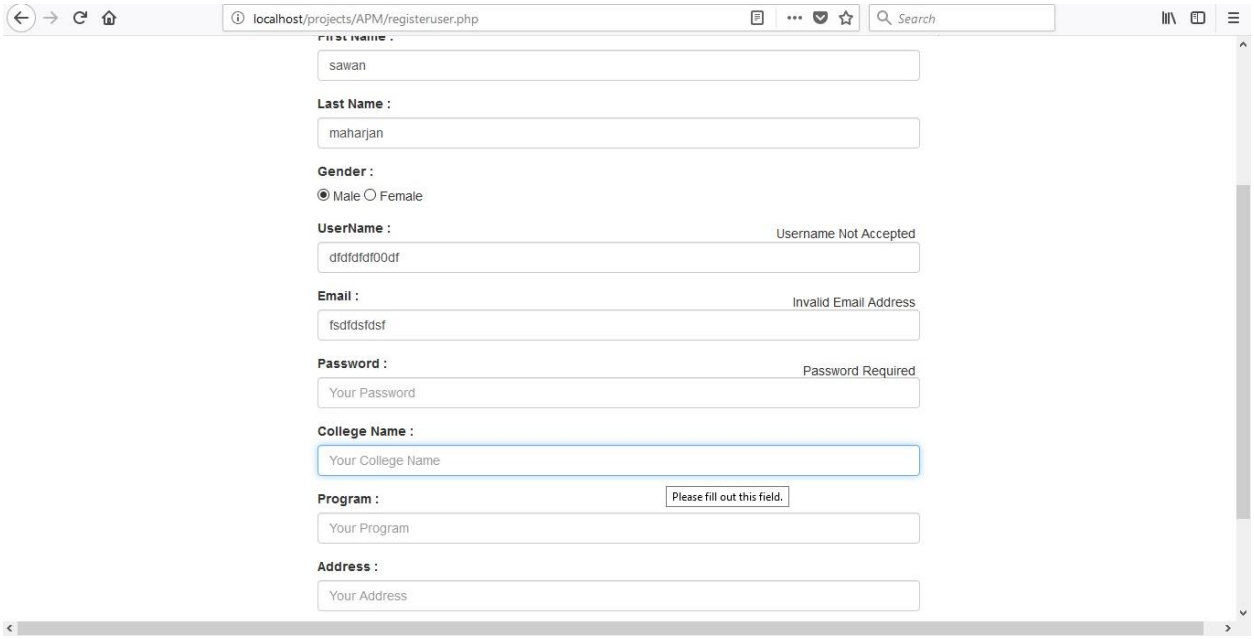

Figure 17: Invalid Username and Email

Test 6.

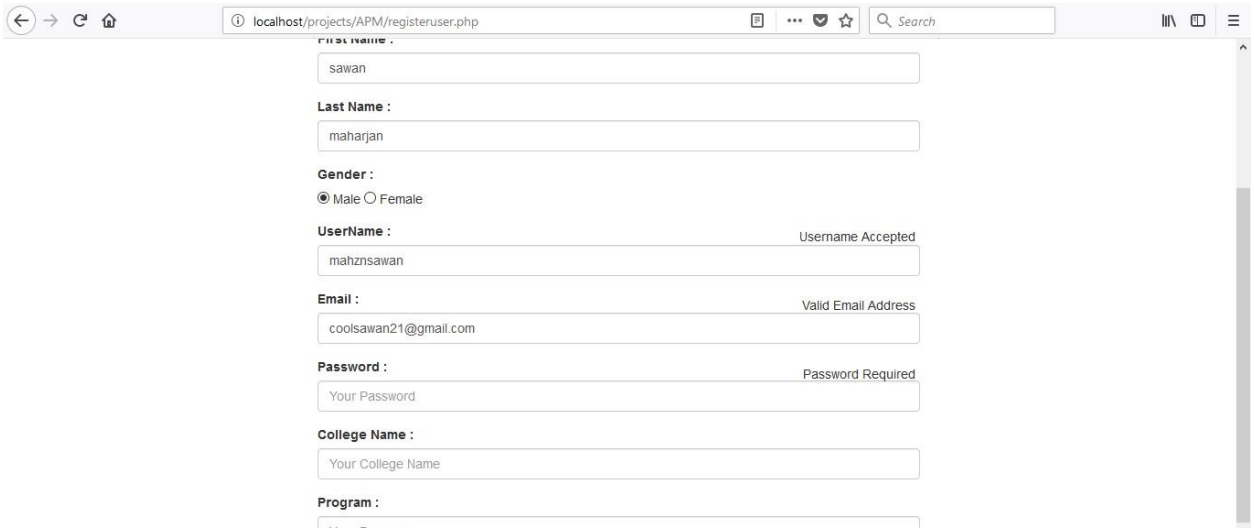

Figure 18: Valid Username and Email

Test 7.

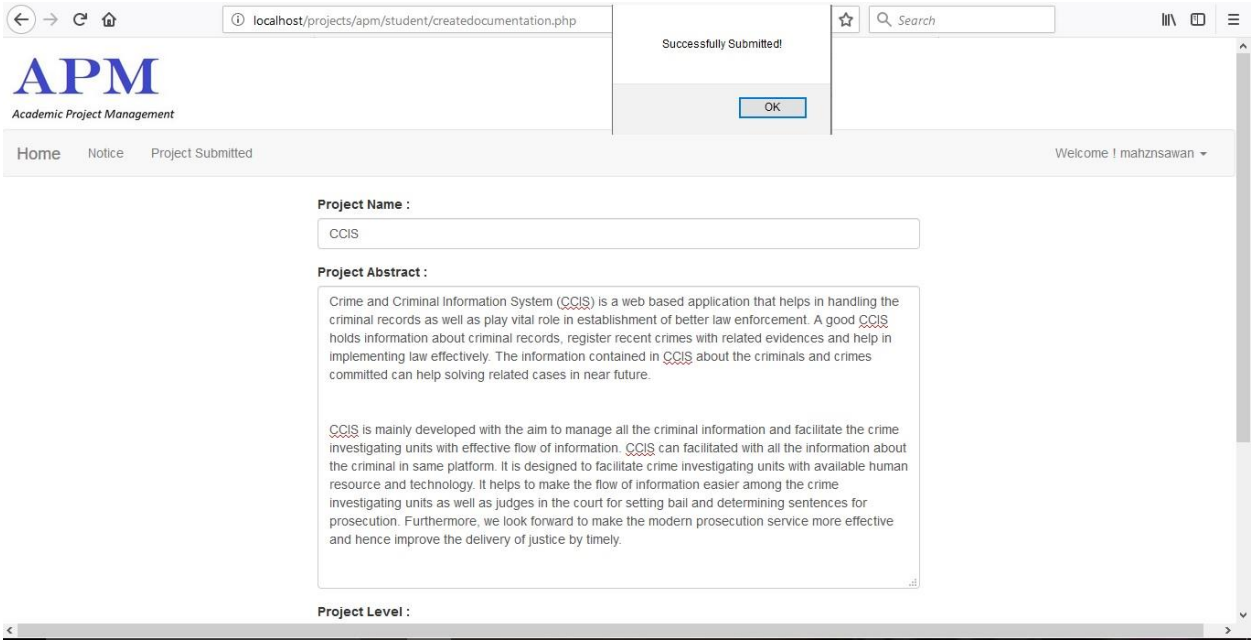

Figure 19: Document Submission Successful

9. PROJECT TASK AND SCHEDULE

9.1 TASK AND TIME SCHEDULE

The time schedule has been designed as per the requirements. This project is scheduled to be completed in about 2 and half months. Requirement analysis has been given more emphasis. System Design is to be done first. Testing and Debugging is to be done along with the development of the project. Finally, documentation is done throughout the project.

ID	Iteration	Task Name	Duration
1	Iteration 1	Requirement analysis and specification	6.0 d.
2		Design Specification	5.0 d.
3		Develop System	10.0 d.
4		Testing and Debugging	2.0 d.
5	Iteration 2	Requirement analysis and specification	6.0 d.
6		Design Specification	5.0 d.
7		Develop System	6.0 d.
8		Testing and Debugging	2.0 d.
9	Iteration 3	Requirement analysis and specification	7.0 d.
10		Design Specification	6.0 d.
11		Develop System	12.0 d.
12		Testing and Debugging	3.0 d.
13		Overall System test	12.0 d.
14		Documentation	70.0 d.

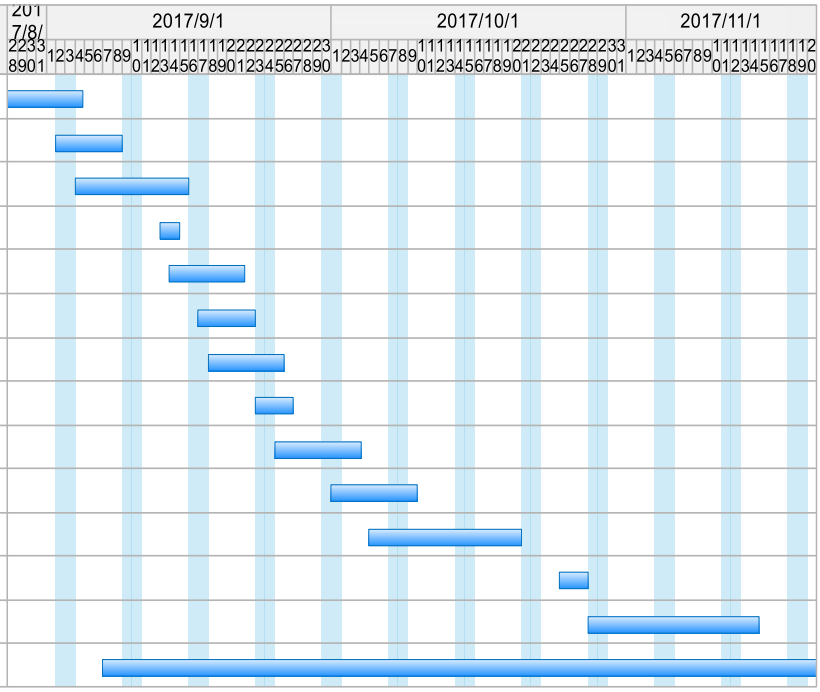

Figure 20: Gantt Chart

10. CONCLUSION AND FUTURE EXTENSION

Academic Project Management System is an application that provides a platform for interaction between the student and the reviewer. Overall it is a system that will facilitate activities from the submission of the project document till the completion of the project.

With some changes to be done in this project, this project will be completed in few months with documentation and can be made available to its user. The future extensions of the system are:

- Multiple number of students can be added to form a project team and over take a project.
- Notification to the mobile phone about the update of the project.

11. REFERENCES

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