Enterprise Web Software Development

Tutor: Mr.Ryan

Project Name: Web enabled Idea Collecting system

Programme : BSC Computing (Hons)

Course code : COMP1640

Team members :

Cecillia Jane Johnson – UOG ID: 000908127

Dharshini Bathmanathan- UOG ID: 000909034

Table of contents

1. Introduction

1.1. Problem Statement

This is a group coursework requires us to develop a system for college for the students to post their idea instead of submitting ideas to lectures using paper or oral method.

1.2. Objectives

The objective is to develop an easy way for students as well as staff to post and view ideas from anywhere using the system. Besides to have system which can track all the ideas and keep record safely.

1.3. Project scope

The aim of the project is to build secured web enabled role system for collecting ideas. Resources needed to complete this project are PCs, laptops and printer.

1.4. Limitations

We are assigned into group to do this project using agile scrum method.

1.5. Requirement tools

Tools used in this project include Xampp software, phpmyadmin,mysql and Microsoft excel.

2. Methodology

2.1. Proposed methodology

Every project needs a method in order to develop.The proposed methodology is agile scrum development. Agile scrum method help us saves time and develop quickly.It was easy to deal with challenges because the short sprint and ongoing feedbacks helped us to improve from time to time. Initially we are 3 members in and each of us has 2 roles and due to some unavoidable reason one of the member leave the group and only left 2 members in group.

Roles involved in this project:

Cecillia Jane Johnson : Scrum master, web designer and (tester previously Annuar)

Dharshini Bathmanathan : Programmer , researcher and (database designer previously Annuar)

2.2. User stories

As a student, I want to be able to submit one or more ideas.

As a student, I want to be able to upload documents to support the ideas.

As a student, I want to be able to agree to the Terms and Conditions before submission.

As a QA Manager, I can add additional categories and delete categories so that if they have not been used.

As a staff and students, I want to view all submitted ideas, comment on any idea and give the Thumbs Up or Thumbs Down for any idea.

As a staff, I want my comments to be visible to other staff only and view the students and staff comments.

As a user, I want to post my ideas and comments anonymously and the author's details will be stored so that any inappropriate ideas can be investigated.

As a user, I want to be able to comments after the closure date for the new ideas.

As a QA coordinator, I want to receive an email notification once an idea submitted.

As an author of an idea, I want to get notify whenever a comment is submitted.

As a staff, I want to view the Lists of Most Popular Ideas (+1 for Thumbs Up, -1 for Thumbs Down), Most Viewed Ideas, Latest Ideas and Latest Comments.

As a QA coordinator, I want to view the list of ideas in paginated.

As a QA manager, I want to be able to download all the selected contributions after the final closure date in a ZIP file for transfer out of the system.

As an administrator, I want to maintain the system data, e.g. closure dates for each academic year, staff details and student details.

As a user, I want a statistical analysis for the number of ideas for each department.

As a user, I want an interface which suitable for all devices.

As a user, I want all the ideas to be categorized.

As a user, I want a QA Coordinator who is responsible for managing the process for their Department, and for encouraging students to contribute.

As the University, I want to assign a Quality Assurance Manager in order to oversee the process.

2.3. Product backlogs

High level requirement

As a student, I want to be able to submit one or more ideas.

As a student, I want to be able to upload documents to support the ideas.

As a QA Manager, I can add additional categories and delete categories so that if they have not been used.

As a staff and students, I want to view all submitted ideas, comment on any idea and give the Thumbs Up or Thumbs Down for any idea.

As a user, I want to post my ideas and comments anonymously and the author's details will be stored so that any inappropriate ideas can be investigated.

As a user, I want to be able to comments after the closure date for the new ideas.

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As a QA manager, I want to be able to download all the selected contributions after the final closure date in a ZIP file for transfer out of the system.

As an administrator, I want to maintain the system data, e.g. closure dates for each academic year, staff details and student details.

As a user, I want an interface which suitable for all devices.

As a user, I want a QA Coordinator who is responsible for managing the process for their Department, and for encouraging students to contribute.

As the University, I want to assign a Quality Assurance Manager in order to oversee the process.

Low level requirement

As a student, I want to be able to agree to the Terms and Conditions before submission.

As a user, I want all the ideas to be categorized.

As a user, I want a statistical analysis for the number of ideas for each department.

As a staff, I want to view the Lists of Most Popular Ideas (+1 for Thumbs Up, -1 for Thumbs Down), Most Viewed Ideas, Latest Ideas and Latest Comments.

As a QA coordinator, I want to view the list of ideas in paginated.

As a QA coordinator, I want to receive an email notification once an idea submitted.

As a staff, I want my comments to be visible to other staff only and view the students and staff comments.

2.4. Sprint backlogs and burndown charts

Sprint backlogs

No	Product backlogs	Tasks	Tasks Owner	Estimate time (hour)	Hours of work
1	As a student, I want to be able to submit one or more ideas.	1. Create the draft user interface	Cecillia	1	1
		2. Design the user interface	Cecillia	1	1
		3. Create a database	Dharshini	1	1
		4. Code the function	Dharshini	1	1
		5. Test the function	Cecillia	1	1
2	As a user, I want all the ideas to be categorized.	1. Update the user interface design of idea page	Cecillia	2	1
		2. Code the function	Dharshini	2	2
		3. Test the function	Cecillia	1	1
3	As a student, I want to be able to upload	1. Modify the database	Dharshini	2	1

	documents to support the ideas.	2. Update the idea page	Dharshini	1	1
		3. Test the function	Cecillia	1	1
4	As a student, I want to be able to agree to the Terms and Conditions before submission.	1. Modify the design of idea page	Cecillia	1	
		2. Code the function	Dharshini	2	1
		3. Test the function	Cecillia	1	1

Sprint backlogs

No	Product backlogs	Tasks	Tasks Owner	Estimate time	Hours of work
1	As a QA Manager, I can add additional categories and delete categories so that if they have not been used.	1.Design the user interface	Cecillia	1	1
		2.Code the function	Dharshini	2	2
		3.Test the function	Cecillia	1	1
2	As a user, I want to post my ideas and comments anonymously and the author's details will be stored so that any inappropriate ideas can be investigated.	1.Code the function	Dharshini	1	1
		2.Test the function	Cecillia	1	1
3	As a QA coordinator, I want to view the list of ideas in paginated.	1.Code the function	Dharshini	1	1
		2.Test the function	Cecillia	1	1
4		1.Code the function	Dharshini	1	1

	As a staff, I want to view the Lists of Most Popular Ideas (+1 for Thumbs Up, -1 for Thumbs Down), Most Viewed Ideas, Latest Ideas and Latest Comments.	2.Test the fuction	Cecillia	1	1

Sprint backlogs

No	Product backlogs	Tasks	Tasks Owner	Estimate time	Hours of work
1	As a QA coordinator, I want to view the list of ideas in paginated.	Code the function	Dharshini	1	1
		Test the function	Cecillia	1	1
2	As a staff, I want my comments to be visible to other staff only and view the students and staff comments.	1.Code the function	Dharshini	1	1
		2.Test the function	Cecillia	1	1
3	As a user, I want an interface which suitable for all devices	1.Design interfaces	Cecillia	1	1
		2.Code the function	Dharshini	1	1
		3.Cecillia	Tester	1	1
4	As the University, I want to assign a Quality Assurance Manager in order to oversee the process.	1.Code the function	Dharshini	1	1
		2.Test the function	Cecillia	1	1
		3.Update QA manager functions	Dharshini	2	2
		4.Test the function	Cecillia	1	1

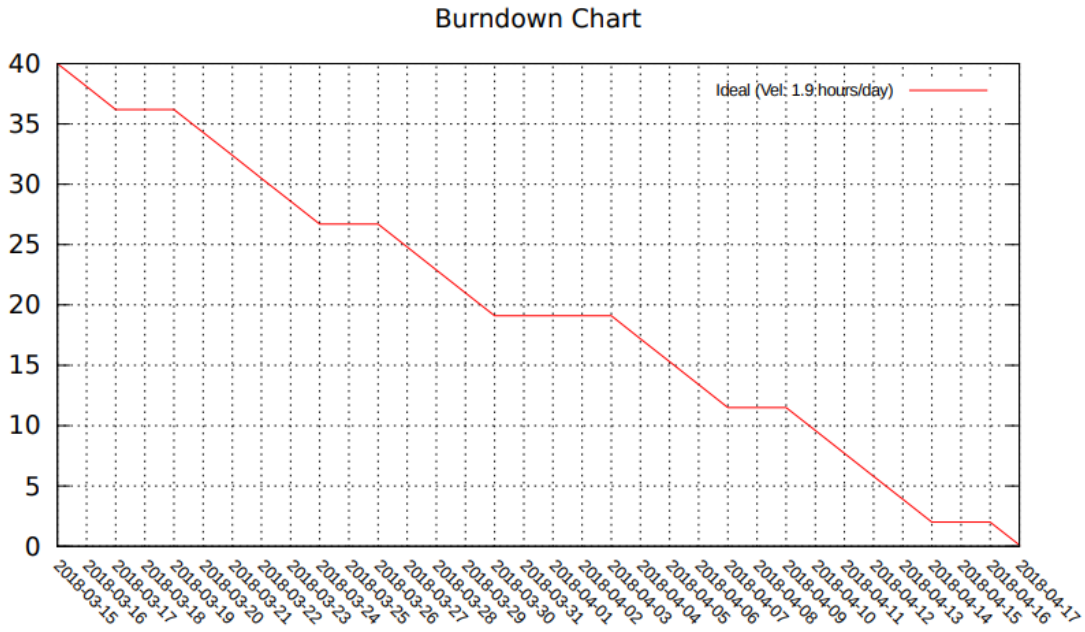


Chart 1： Burndown Chart

3. Design

3.1. Database design

3.1.1. Data Dictionary

Admin

Column	Type	Null
admin_id *(Primary)*	int(5)	No
admin_name	varchar(100)	No
admin_pwd	varchar(100)	No

Category

Column	Type	Null
cat_id *(Primary)*	int(5)	No
cat_name	varchar(50)	No

Comment

Column	Type	Null
c_id *(Primary)*	int(5)	No
comments	varchar(255)	No
i_id	varchar(50)	No
user_id	varchar(50)	No

Department

Column	Type	Null
depart_id *(Primary)*	int(5)	No
depart_name	varchar(100)	No

Idea

Column	Type	Null
i_id *(Primary)*	int(5)	No
category	varchar(100)	No
author_name	varchar(100)	No
title	varchar(150)	No
idea	varchar(255)	No
doc	longblob	No
posted_time	timestamp	No
author_id	int(10)	No

Liked

Column	Type	Null
user_id	varchar(40)	No
i_id	varchar(40)	No

qa coordinator

Column	Type	Null
coord_id *(Primary)*	int(5)	No
coordinator_name	varchar(20)	No
coord_pwd	varchar(100)	No

qa manager

Column	Type	Null
manager_id *(Primary)*	int(5)	No
manager_name	varchar(50)	No
manager_pwd	varchar(100)	No

Staff

Column	Type	Null
staff_id *(Primary)*	int(5)	No
u_name	varchar(100)	No
staff_pwd	varchar(100)	No
role	varchar(100)	No
depart_id	int(5)	No
staff_mail	varchar(100)	No
level	int(5)	No
status	int(5)	No

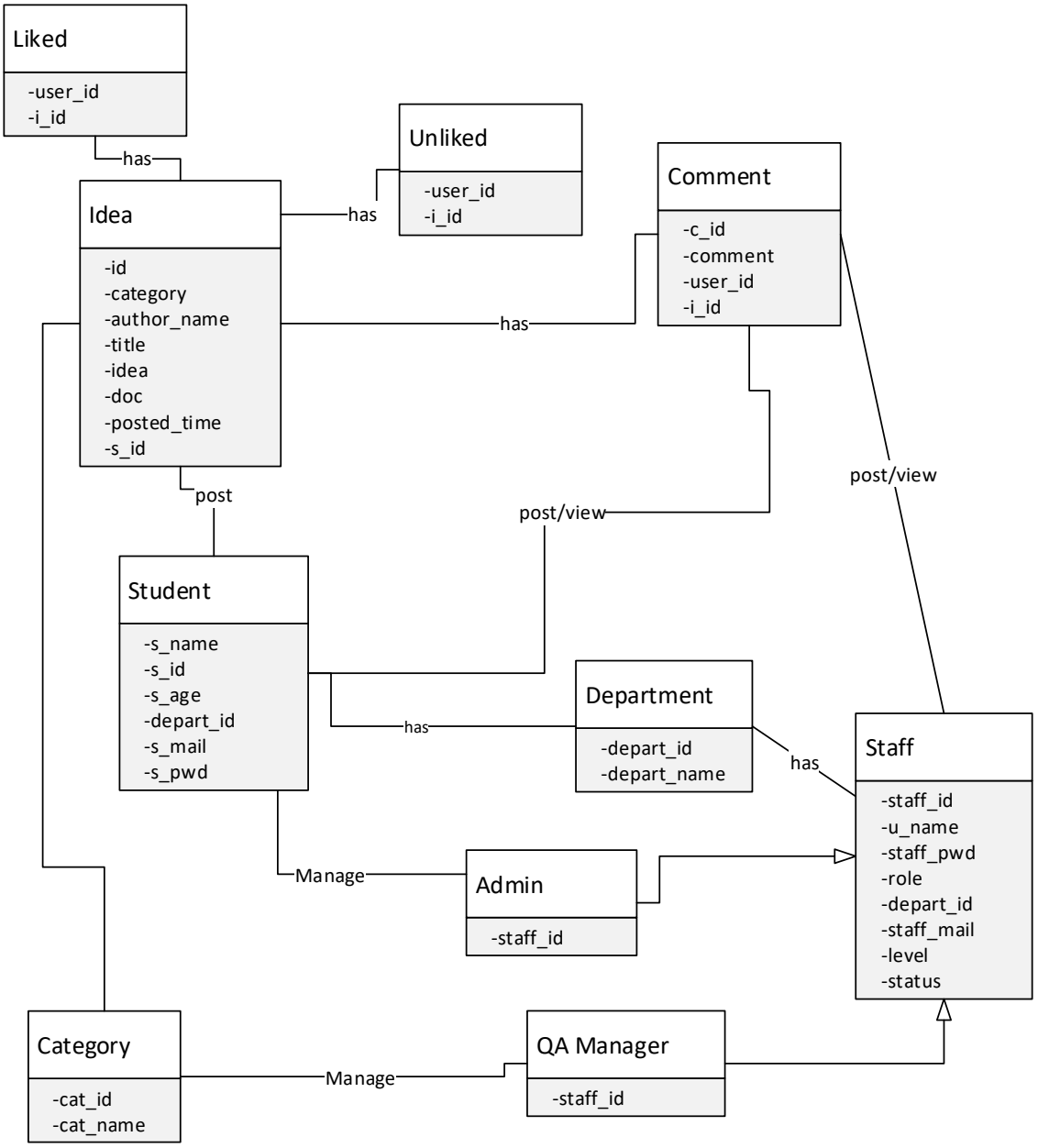
student

Column	Type	Null
s_id *(Primary)*	int(10)	No
s_name	varchar(200)	No
s_age	int(3)	No
depart_id	int(5)	No
s_mail	varchar(255)	No
s_pwd	varchar(60)	No

Unlike

Column	Type	Null
user_id	varchar(40)	No
i_id	varchar(40)	No

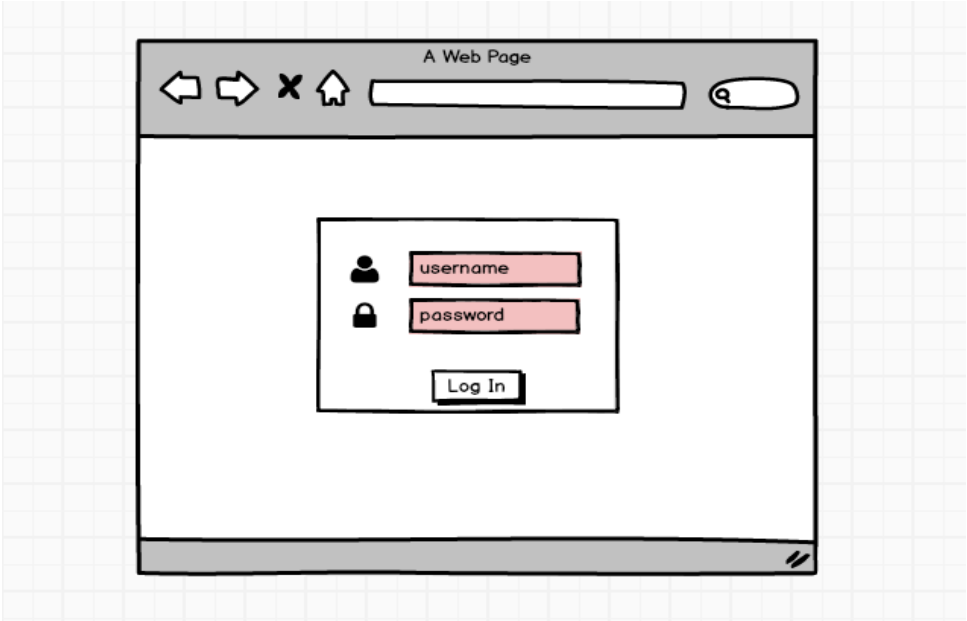
3.1.2. Entity Relationship Diagram (ERD)



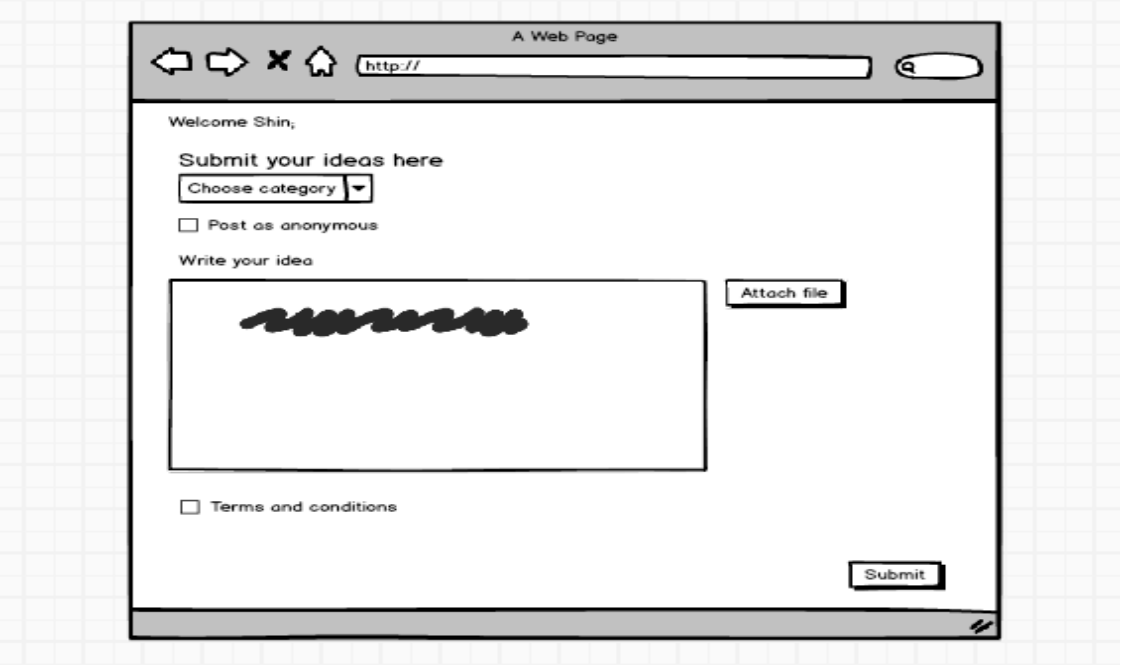
3.2. Interface Design

3.2.1. Expected Design

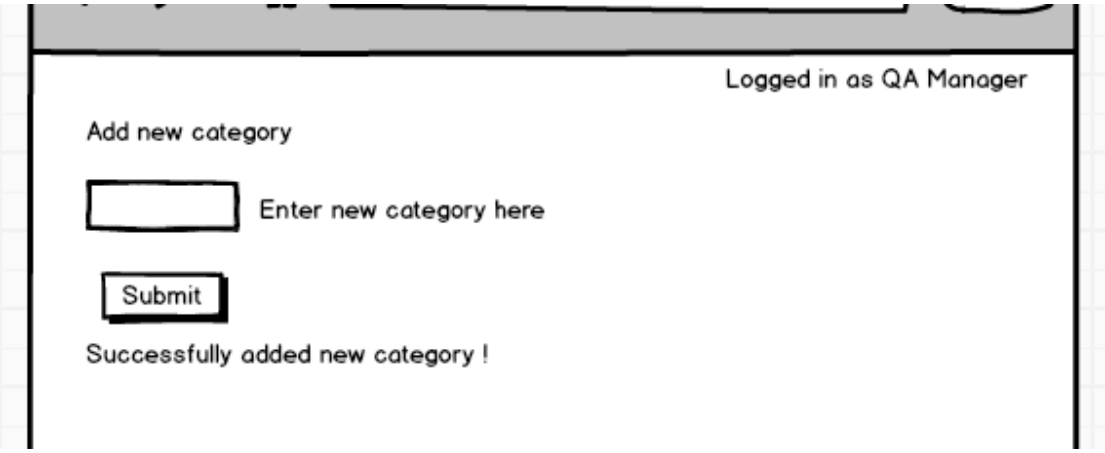
Below are the expected design for login page, submitting idea page, add new category page and delete category page.



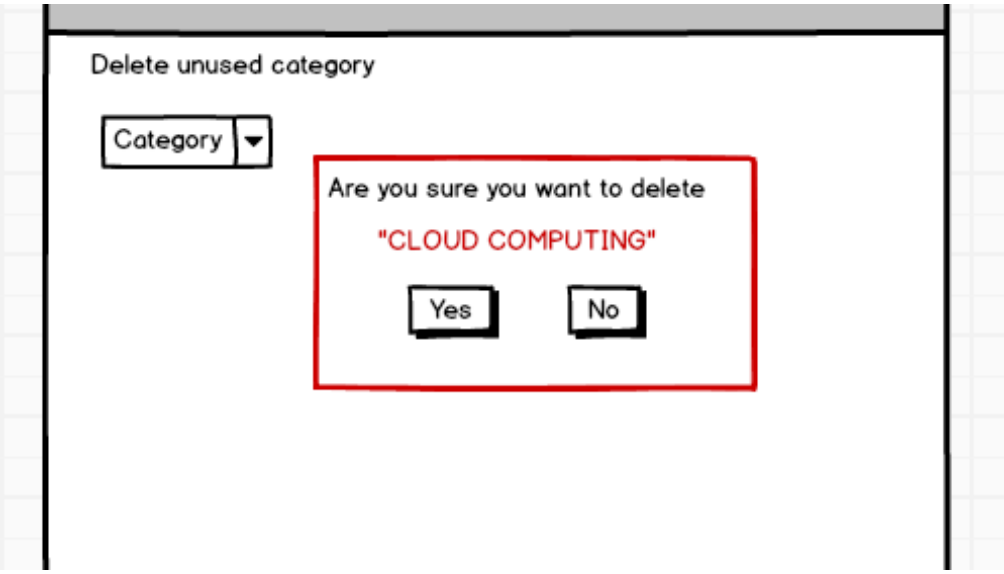
Login page wireframe



New idea submitting page wireframe



Add new category by QA Manager wireframe

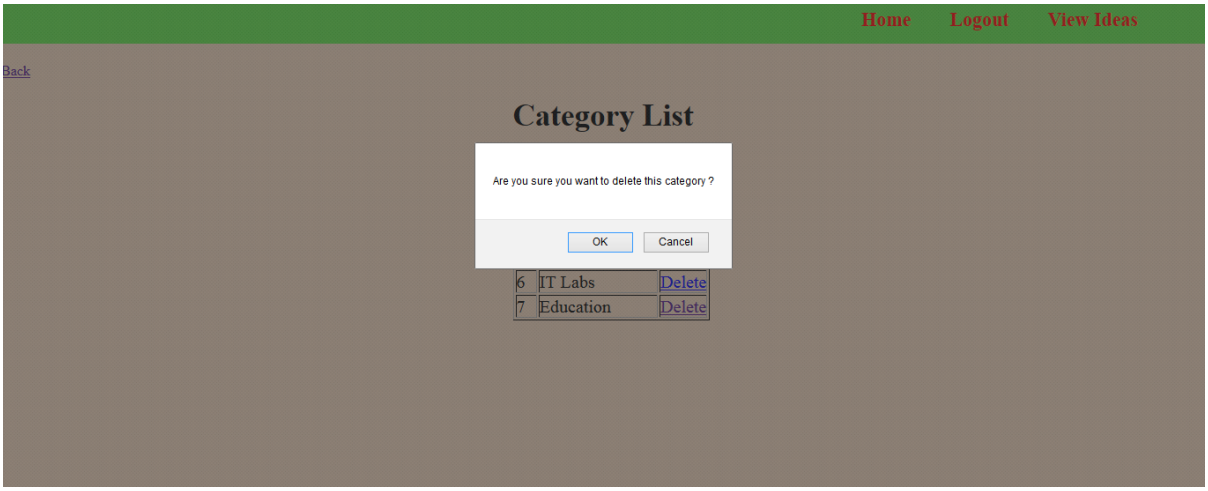


Delete category wireframe

3.2.2. Actual Design

Login page

Add category by QA Manager page

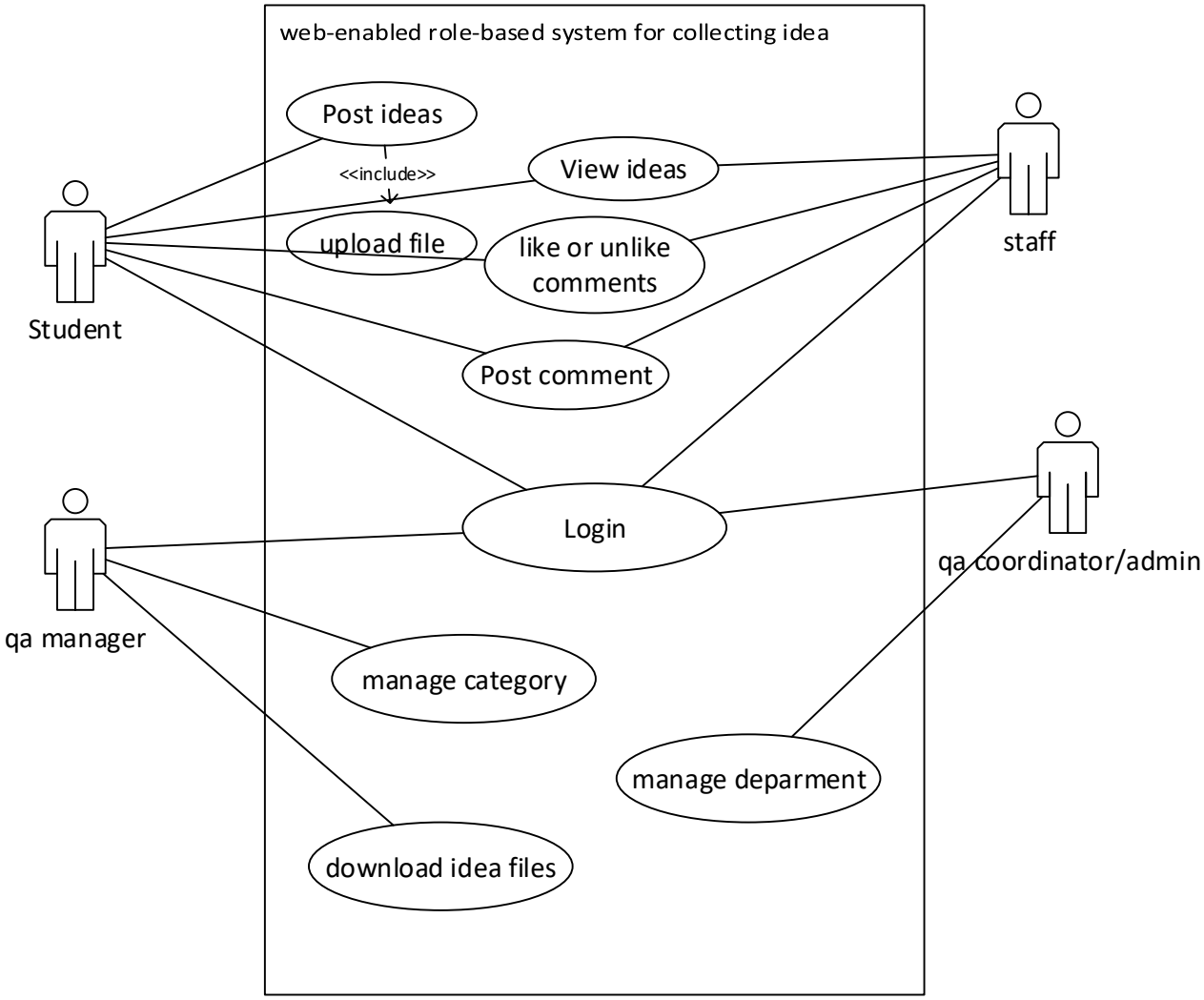


Delete unused category page.

4. Functionality

4.1. UML DIAGRAMS

4.1.1. Use case diagram



5. Testing

5.1. Test Plan

Test	What is being tested	How	Test data used	Expected Results
1	Login page of student	Enter data which required in the username and password field	000909021 nathanselvi	Allow student to enter Idea page
2	Validation of input in title field in idea page	Submit idea without writing the title	1. 32 2. blank	correct data accepted, bad data rejected
3	Upload file	Click upload file in idea page	Choose any file from folder	File uploaded successfully
4	QA Manager able to delete unused category	Login using QA Manager id and select delete category	Shuttle service	Shuttle service deleted from category
5	QA Manager able to view comments	Select view ideas	Qa manager login details	QA manager able to view all the comments

5.2. Test Log

Test	What is being tested	How	Test data used	Expected Results	Date	Actual results	Action taken
1	Login page of student	Enter data which required in the username and password field	000909021 nathanselvi	Allow student to enter Idea page	7 april	Idea page shown	none
2	Validation of input in title field in idea page	Submit idea without writing the title	1. 32 2. blank	correct data accepted, bad data rejected	7 april	Could not submit without filling title field	none
3	Upload file	Click upload file in idea page	Choose any file from folder	File uploaded successfully	7 april	File uploded	none
4	QA Manager able to delete unused category	Login using QA Manager id and select delete category	Shuttle service	Shuttle service deleted from category	7 april	Shuttle service removed	none
5	QA Manager able to view comments	Select view ideas	Qa manager login details	QA manager able to view all the comments	7 april	Page Loading error	Re-code to work the function

6. Minutes of meeting

Meeting 1

Location : Steve Jobs Computer Lab , Segi College Penang

Date : 1 February 2018

Time : 7pm to 8pm

Called by : Cecillia Jane

Time keeper : Annuar

Note taker : Dharshini

Meeting objective : To discuss our roles

Attendees : Cecillia Jane

Dharshini

Annuar Izzudin

Agenda List : 1. Divided our role

2.Discuss our role's works

Action taken : Study about our role in agile scrum method

Meeting 2

Location : Steve Jobs Computer Lab , Segi College Penang

Date : 8 February 2018

Time : 7pm to 8pm

Called by : Cecillia Jane

Time keeper : Annuar

Note taker : Dharshini

Meeting objective : Discussion on building the system

Attendees : Cecillia Jane

Dharshini

Annuar Izzudin

Agenda List : 1. Finalise language for coding

2.Share ideas for developing the system

Action taken : 1. Decided to use php language in our project and sql database

2.Annuar as database designer have to create database while Cecillia start creating

Mockup for interfaces.

Meeting 3

Location : Library , Segi College

Date : 21 February 2018

Time : 4pm

Called by : Cecillia Jane

Time keeper : Dharshini

Note taker : Dharshini

Meeting objective : To rearrange tasks and roles

Attendees : Cecillia Jane

Dharshini

Agenda List : 1. Divided our role between two person because Annuar left the group

2.Discuss our role's works again

Action taken :1. Dharshini is now the database designer replacing Annuar

2.Cecillia presenting mockup design and planning web designs.

Meeting 4

Location : Lobby, Segi College

Date : 20 March 2018

Time : 1pm

Called by : Dharshini

Time keeper : Cecillia

Note taker : Cecillia

Meeting objective : To discuss project progress

Attendees : Cecillia Jane

Dharshini

Agenda List : 1.Check database

2.Check coding part

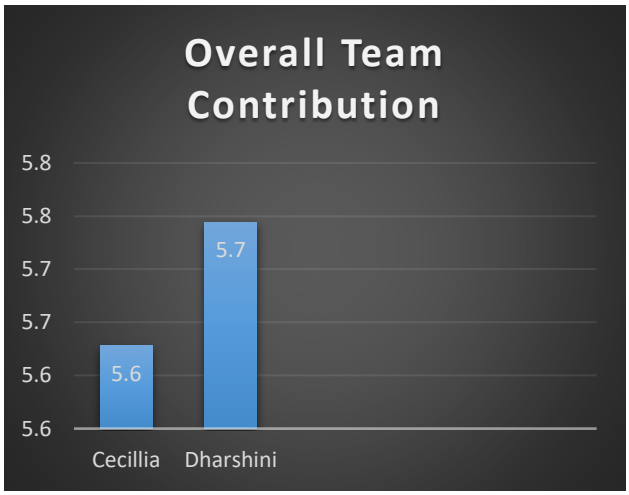
Action taken :1. Corrected some tables in database

2.Implementing few user stories

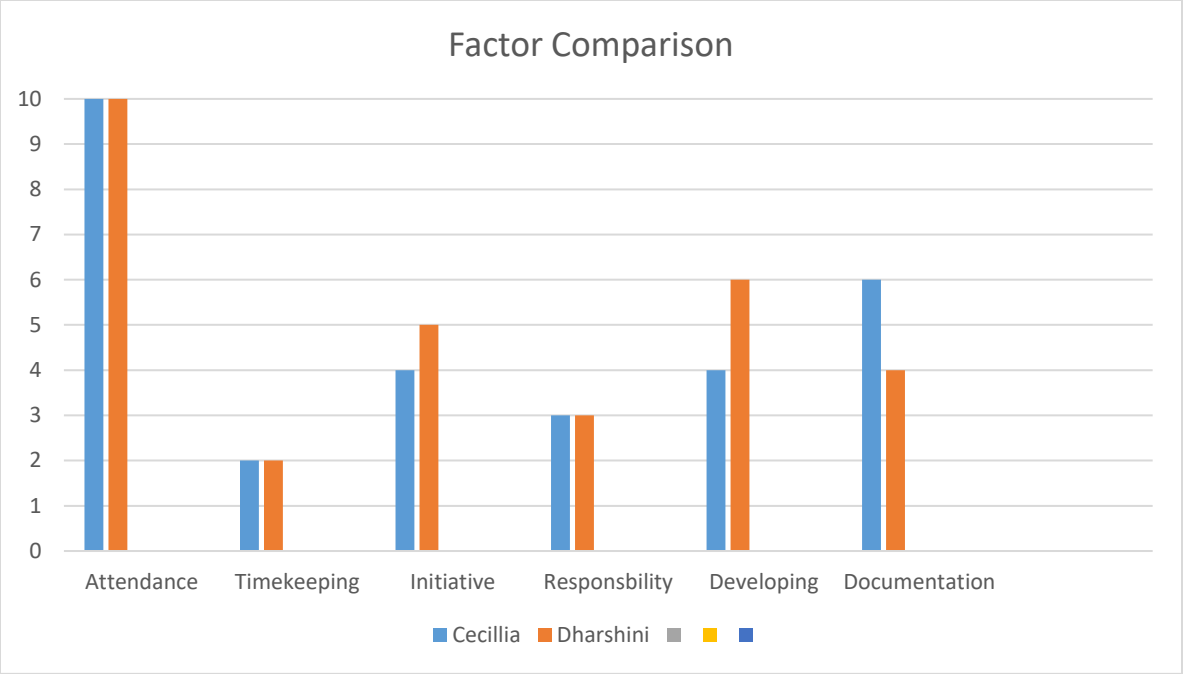
7. Documentation of weighted scoring model

FACTOR	WEIGHT	Cecillia	Dharshini
Attendance	10	10	10
Timekeeping	2	2	2
Initiative	5	4	5
Responsibility	6	3	3
Developing	10	4	6
Documentation	10	6	4
TOTAL	43	5.6	5.7

Factors and weight



Total contribution


Factor Comparison
10
9
8
7
6
5
4
3
2
1
0
Attendance
Timekeeping
Initiative
Responsbility
Developing
Documentation
Cecillia
Dharshini

8. Evaluate

Evaluation of the design process.

In this group coursework we followed agile scrum where the activity keep continueing one after one from specification , design , development and testing. In this process scrum is everything.We have to create sprints for 21 days using product backlogs to assign task among us.Each sprints have certain task divided between me and my partner.However we are unable to track down our individual daily scrum log but we did finished all our sprint task on estimated time.

Reflection

Our reflection on the finished product is partially good.We did include most requirements of the product but not all part are working.We still get error on some parts.In the beginning we were 3 members in group then one left and now we are only 2 members. We faced so many problems because of that.The person who left actually did not give us the work we asked to do so we took so much of time to start the coursework again.We understand that we had less manpower to develop this system.After some time we also realize we have limited knowledge which leads us to take too much time on certain task and spending our time mostly on it.As time goes we had limited time so we started to do other tasks and we did not managed to finish some of the requirement.The product have some minor errors and some part not working as expected.We hope next time if we get chance to build this kind of system we can make it far better.

Team Contributions

Its only two person in the group Cecillia and Dharshini.The contribution of both us for this project is equal . This is because both of us helped each other to finish this project.There is no domination or arguments during the process.Our contribution in all the factor are satisfying because no one of us actually do nothing. This project cannot be done till this if any of us did not finish the task given properly.