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| Diagram  Description automatically generated  **Enterprise web Software development – Comp1640** | group 12  *HUYNH NGOC PHUONG ANH – GCS190288 NGUYEN THAI TUAN – GCS*  *PHAM MINH CHIEN – GCS*  *TRAN DIEP QUOC TRUNG – GCS18792* |

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1. **Introduction**

Our project is going to focus on building a company's internal website to collect ideas from staff and the main purpose is to boost them to express their point of view. More specifically, this website is similar to a forum where everyone can give their ideas about a certain topic within a certain period is set up by the admin or manager.

This project will use agile scrum working practices to divide work into four sprints. Each sprint has two weeks to finish the assigned work. This method will help us control the amount of work. Everyone has the responsibility for their tasks so that if there is something, we know the problem came from.

To be a more specific view of our project, take a look at the project requirement that we have to reach:

* Four main roles: Quality Assurance Manager, QA Coordinator, Administrator, and Staff.
* Quality Assurance Manager can supervise the procedure, create/read/update/delete(CRUD) categories and download all the files after the final closure date.
* QA coordinators can manipulate the process for their department.
* Staff must agree to Terms and Conditions before submitting ideas, upload files or documents to support their ideas, comment on other ideas, and select once for the thumbs up or thumbs down for any ideas. They can be posted anonymously, but their author details will still be saved in the database. Send email and receive an email notification whenever comments or ideas are submitted.
* Administrators have all the functions above with maintaining any system data, set closure dates for each academic year, staff details, etc.
* Statistical analysis will be shown up in the dashboard of authorized senior accounts.
* The interface must be fit for all devices.

1. **Requirement Engineering**
   1. **Roles and Functions**

This system will have four main roles: Quality Assurance Manager, QA Coordinator, Administrator, and Staff.

* + 1. **User Class – Administator**
       1. **Functional Requirement 1.1**

**ID:** FR1

**Feature:** Administrator login

In order to administer the system, an administrator should be logged in to the web portal.

**Scenario:** Successful log-in

Given the administrator wants to log in

When the administrator logs in with an administrator account

Then the administrator should be logged in as an administrator

* + - 1. **Functional Requirement 1.2**

**ID:** FR2

**Feature:** Manage Category

In order to manage category the system, an administrator should be logged in to the web portal.

**Scenario:** Create New Category

Given the administrator wants to log in

When the administrator creates a new one, then the information should be added to database and showed in Category’s index page.

When users create a new idea, they need to pick one category to categorize those ideas.

**Scenario:** Edit Category

When the administrator edit a new one, then the information should be updated to database.

**Scenario:** View Category

When the administrator view a specific one, then navigate to the category detail page.

**Scenario:** Delete Category

When the administrator deletes one, all of information related to that category must be removed.

* + - 1. **Functional Requirement 1.3**

**ID:** FR3

**Feature:** Manage Department

In order to manage department in the system, an administrator should be logged in to the web portal.

**Scenario:** Create New Department

Given the administrator wants to log in

When the administrator creates a new one, then the information should be added to database and showed in Department index page.

When admin add new a user, he need to pick one department to categorize those users.

**Scenario:** Edit Department

When the administrator edit a new one, then the information should be updated to database.

**Scenario:** View Department

When the administrator view a specific one, then navigate to the department detail page.

**Scenario:** Delete Department

When the administrator deletes one, all of information related to that department must be removed.

* + - 1. **Functional Requirement 1.4**

**ID:** FR4

**Feature:** Manage Topic Submission

In order to manage topic submission in the system, an administrator should be logged in to the web portal.

**Scenario:** Modified Closure Dates

Admin will hold the key to lock or unlock the date of submission idea, which means they have the right to open date or close it.

**Scenario:** View All Ideas Belong To That Topic.

* + - 1. **Functional Requirement 1.5**

**ID:** FR5

**Feature:** View Statical Analysis

In order view statical analysis in the system, an administrator should be logged in to the web portal.

* + 1. **User Class – Staff**
       1. **Functional Requirement 1.1**

**ID:** FR1

**Feature:** Staff login

In order to using functions and access to idea page in the system, a staff should be logged in to the web portal.

**Scenario:** Successful log-in

* + - 1. **Functional Requirement 1.2**

**ID:** FR2

**Feature:** Manage Ideas

In order to manage ideas, a staff should be logged in to the web portal.

**Scenario:** Post idea, Upload Document, Add Idea To Category

Staffs access to topic submission at first, then use post idea function to submit it.

**Scenario:** Delete idea

Staffs can delete their ideas.

**Scenario:** View idea

Staffs can view their ideas and others ideas.

**Scenario:** Add Comment and Reply Comment To An Idea.

Staffs access to idea page detail to give comments and reply others.

**Scenario:** Add Reaction To An Idea.

Each staff can only like or dislike once.

**Scenario:** Receive An Automatic Email Notification.

Staffs will be notified via Email whener anyone comments in their ideas.

* + - 1. **Functional Requirement 1.3**

**ID:** FR3

**Feature:** Manage Account

In order to manage account, a staff should be logged in to the web portal.

**Scenario:** Upload Profiles

Staffs can upload their profile.

* + 1. **User Class – Manager**
       1. **Functional Requirement 1.1**

**ID:** FR1

**Feature:** Manager login

In order to using functions and access to idea page in the system, a manager should be logged in to the web portal.

**Scenario:** Successful log-in

* + - 1. **Functional Requirement 1.2**

**ID:** FR2

**Feature:** Manage Ideas

In order to manage ideas, a manager should be logged in to the web portal.

**Scenario:** Post idea, Upload Document, Add Idea To Category

Managers access to topic submission at first, then use post idea function to submit it.

**Scenario:** Delete idea

Managers can delete their ideas.

**Scenario:** View idea

Managers can view their ideas and others ideas.

**Scenario:** Add Comment and Reply Comment To An Idea.

Managers access to idea page detail to give comments and reply others.

**Scenario:** Add Reaction To An Idea.

Each Manager can only like or dislike once.

**Scenario:** Download Files.

All files uploaded will be downloaded automatically after the final closure date.

**Scenario:** Receive An Automatic Email Notification.

Managers will be notified via Email whener anyone comments in their ideas.

* + - 1. **Functional Requirement 1.3**

**ID:** FR3

**Feature:** Manage Account

In order to manage account, a manager should be logged in to the web portal.

**Scenario:** Upload Profiles

Managers can upload their profile.

* + - 1. **Functional Requirement 1.4**

**ID:** FR4

**Feature:** View Statical Analysis

In order view statical analysis in the system, a manager should be logged in to the web portal.

* + - 1. **Functional Requirement 1.5**

**ID:** FR5

**Feature:** Manage Category

In order to manage category in the system, a manager should be logged in to the web portal.

**Scenario:** Create New Category

Given the manager wants to log in

When the manager creates a new one, then the information should be added to database and showed in Category’s index page.

When users create a new idea, they need to pick one category to categorize those ideas.

**Scenario:** Edit Category

When the manager edit a new one, then the information should be updated to database.

**Scenario:** View Category

When the manager view a specific one, then navigate to the category detail page.

**Scenario:** Delete Category

When the manager deletes one, all of information related to that category must be removed.

* + 1. **User Class – Coordinator**
       1. **Functional Requirement 1.1**

**ID:** FR1

**Feature:** Coordinator login

In order to using functions and access to idea page in the system, a Coordinator should be logged in to the web portal.

**Scenario:** Successful log-in

* + - 1. **Functional Requirement 1.2**

**ID:** FR2

**Feature:** Manage Ideas

In order to manage ideas, a Coordinator should be logged in to the web portal.

**Scenario:** Post idea, Upload Document, Add Idea To Category

Coordinators access to topic submission at first, then use post idea function to submit it.

**Scenario:** Delete idea

Coordinators can delete their ideas.

**Scenario:** View idea

Coordinators can view their ideas and others ideas.

**Scenario:** Add Comment and Reply Comment To An Idea.

Coordinators access to idea page detail to give comments and reply others.

**Scenario:** Add Reaction To An Idea.

Each coordinator can only like or dislike once.

**Scenario:** Receive An Automatic Email Notification.

Coordinators will be notified via Email whener anyone comments in their ideas.

* + - 1. **Functional Requirement 1.3**

**ID:** FR3

**Feature:** Manage Account

In order to manage account, a Coordinator should be logged in to the web portal.

**Scenario:** Upload Profiles

Coordinators can upload their profile.

* + - 1. **Functional Requirement 1.4**

**ID:** FR4

**Feature:** View Statical Analysis

In order view statical analysis in the system, a Coordinator should be logged in to the web portal.

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* 1. **Use Case Diagram**

Diagram, schematic

Description automatically generated

* 1. **Activity Diagram**

**Admin**

Diagram

Description automatically generated

**Staff**

Diagram

Description automatically generated

**Manager**

Diagram

Description automatically generated

## **2.4 Sequence Diagram**

**Admin**

A picture containing text, indoor, map

Description automatically generated

**Staff**

A picture containing text, indoor

Description automatically generated

**Coordinator**

A picture containing graphical user interface

Description automatically generated

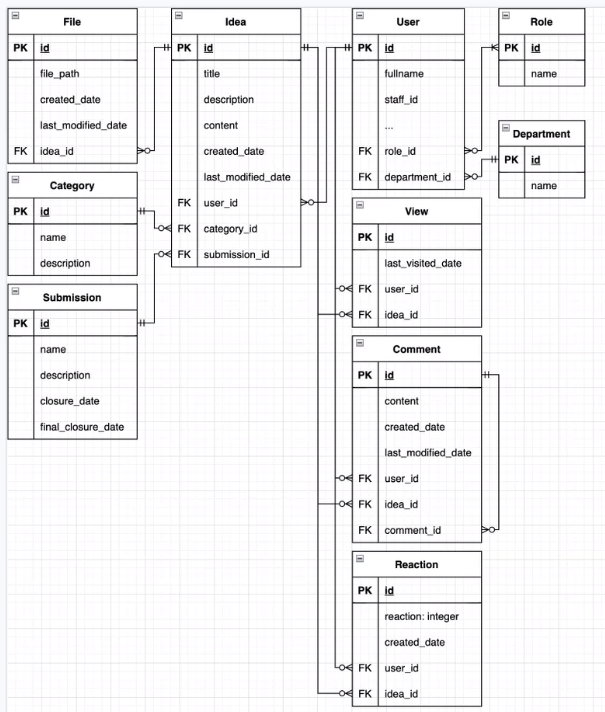
**Manager**

Chart

Description automatically generated with medium confidence

1. **Database Design**

**UML Diagram**



**Diagram

Description automatically generated**

1. **User Interface Design**
2. **Testing**

**Test Case**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Function** | **Test Way** | **Expected Results** | **Test Date** | **Final Results** |
| 1 | Login | Enter Username and Password and click the “Sign in” button on the Login page | Navigate to the Homepage. The username will be show up in the right of the navbar. | 2/4/2022 | Passed |
| 2 | Logout | Enter the “Logout” button in the home page. | \_ Still in the homepage.  \_ Cannot access to any page until Login. | 2/4/2022 | Passed |
| 3 | Return homepage in Login page | Click the Logo University of Greenwich on top of Login Box. | Return to home page. | 2/4/2022 | Passed |
| **Login As Admin** | | | | | |
| 3 | Add New User | Input username, password, staffID,firstname, lastname, address, email, department, sex, DOB and click Register | Alert Success | 2/4/2022 | Failed |
| 4 | Create New Category, Department | Input each information and click Create button. | \_ Success then return Category’s Index to show list and the new one has created is add to the database.  \_ Error then show error notification  \_ The Department is similar. | 2/4/2022 | Passed |
| 5 | Edit Category, Department | Edit function will be showed up in the right side of the specific category in the Category’s Index page.  Edit function will also be in Category’ Detail page.  Department function is similar. | Show all the information and the save button. | 2/4/2022 | Passed |
| 6 | View Category, Department | View Detail function will be next to the Edit button. | Show all the the information after creating or editing. | 2/4/2022 | Passed |
| 7 | Delete Category, Department | Delete function will be next to the View button. | All the related information will be removed out of the database | 2/4/2022 | Passed |
| 8 | Create Topic Submission | Input topic name, description, set up closure date and final closure date. | \_ Success then return Submission’s Index to show list and the new one has created is add to the database.  \_ Error then show error notification. | 2/4/2022 | Passed |
| 9 | Edit Topic Sumission | Edit function will be showed up in the right side of the specific submission in the Submission’s Index page.  Edit function will also be in Submission’s Detail page. | Show all the information and the save button. | 2/4/2022 | Passed |
| 10 | View Submission | View Detail function will be next to the Edit button. | Show all the information after creating or editing. | 2/4/2022 | Passed |
| 11 | Delete Submission | Delete function will be next to the View button. | All the related information will be removed out of the database | 2/4/2022 | Passed |
| **Login as Staff** | | | | | |
| 12 | Post Idea | Input title, description, content, select dropdown list, check agree term and check anonymousy type. | \_ Success then return Idea’s Index to show list and the new one has created is add to the database.  \_ Error then show error notification. | 2/4/2022 | Passed |
| 13 | Edit Idea | Only input title, description, content. | \_ Success then return Idea’s Index to show list and the edited data and modified date will be updated to the database.  \_ Error then show error notification. | 2/4/2022 | Passed |
| 14 | View Idea | View Detail function will be next to the Edit button. | Show the information after creating or editing.  Show Comment function and all of users commented.  Show Like/Dislike function and number of like and dislike. | 2/4/2022 | Passed |
| 15 | Delete Idea | Delete function will be next to the View button. | All the related information will be removed out of the database | 2/4/2022 | Passed |
| 16 | Comment in specific Idea Page. | Input message and check whether anonymous or not. | \_ Success then return Idea’s Detail page and show all the comments.  \_ The new comment will be added to the database with UserId.  \_ Error then show error notification. | 2/4/2022 | Passed |
| 17 | Reply comment in specific Idea Page | Click Reply Button and show Input message with checkbox to choose whether anonymous or not. | \_ Success then return Idea’s Detail page and show all the comments.  \_ The new reply comment will be added to the database with UserId.  \_ Error then show error notification. | 2/4/2022 | Passed |
| 18 | Like/Dislike Button in specific Idea Page. | One user can only like or dislike once. | \_ If the user hasn’t liked it yet, add one like to database when they click Like.  \_ If user click Dislike but Like already exist, update Like to Dislike.  \_ If user click Dislike but Dislike already exsit, remove Dislike. | 2/4/2022 | Passed |

1. **Agile Method**
   1. **Product Backlogs**
   2. **Sprints**
   3. **Progress**
   4. **Schedule Meetings**
   5. **Burndown Charts**
2. **Product Deployment**
3. **Evaluation**
   1. **Product Assesment**
   2. **Process Assesment**
   3. **The Whole Team Assesment**
4. **References**