# 



**Excellent Coaching**

**Documentation**

|  |  |
| --- | --- |
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| **Date** | **18/03/2021** |
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# Problem Definition

## Problem Abstraction

In the ages of modern technologies, Internet has becoming more accessible and gradually playing an essential part in our daily life. As such, websites prove more significant role as an advertisement tool for companies. Such development gives way to a new means of service: Online Services

With a website, businesses can now introduce and advertise their products to a wider range of customers. Customers are no longer having to visit a company and asking people for information, as all of the needed materials are provided in the company website, allowing for easily and conveniently searching for such data.

Excellent Coaching is a courses introductory website of a technologies training centre of the same name. As information technology has becoming a popular choice of career among students, having a website that advertise and allows course registration helps the centre reach further audiences, which is more efficient than traditional means of advertisement like television ads.

As mentioned above, the website provide means for students to look up for their courses of choice, in the hopes of offering students with tools they need to aid their choice of courses.

## The Current System

Online services in general, and websites in particular is a brand new, yet efficient for businesses around the world and Vietnam in particular. Businesses are missing potential customers when operating without a website for their businesses

In the current system, students are not provided with adequate information, as well as employees cannot provide students with relevant answer to their queries. Moreover, on each time the centre offers new courses, they would have to use additional expense for various traditional advertisement, and mistake can happen with telephone marketing.

Excellent Coaching Vietnam website is a functional, well-informed and professionally designed website, aimed to help to help students with their choice of courses as well as their future career.

## The Proposed System

* **Website goals**
  + Provide students with relevant and detailed courses that the centre is offering
  + Allows students to register a course on the website.
  + Provide students information about the centre tutors, as well as their achievements, and their career
* **Website functions:**
  + For guests/students: Students and/or guests can look up up-to-date information about current offering courses, register for one, and send messages to the centre.
  + For admins: administrator can manage courses and faculty information, set schedules for students, and reply to students and/or guest messages
  + In addition, the websites support courses searching, that help students quickly find their courses easily.

## Boundaries of the System

Despite the benefits of the online services, it also has its flaws, such as:

* Information sent on the Internet is not secured, as such, personal data can be leaked. Customer are to be worried about their personal information being revealed.
* False information about the centre can be posted online without verification, leading to negative impression about the centre.
* Most of the limitation came from the fact that online services are still brand-new, it cannot replace traditional method. Furthermore, private institution is different from public one, as such, customer may not fully believe in the provided information on the websites.

## Hardware and Software Requirements

**Minimum requirements**

|  |  |  |
| --- | --- | --- |
|  | **Server** | **Client** |
| **Hardware** | * RAM: 1GB or more * CPU: 2.00 GHz Xeon or more * 40 GB of HDD free space or more * Internet access and LAN | * RAM: 128MB or more * CPU: 1.50 GHz or more * Internet Access * At least 20GB of HDD free space or more |
| **Software** | * Windows Server 2000 or Linux * MySQL, PHP * IIS/Apache with Sendmail add-on | * Windows 7 or later * Latest version of IE, Edge, Chrome, Firefox, Safari |

**Recommended Requirements**

|  |  |  |
| --- | --- | --- |
|  | **Server** | **Client** |
| **Hardware** | * RAM: 2GB or more * CPU: 2.4 GHz Xeon or more * 80 GB of HDD free space or more * Internet access and LAN | * RAM: 1GB or more * CPU: 2.00 GHz or more * Internet Access * At least 40GB of HDD free space or more |
| **Software** | * Windows Server 2016 or Linux * MySQL, PHP * IIS/Apache with Sendmail add-on * Having port 8888, 3306 opened | * Windows 7 or later * Latest version of IE, Edge, Chrome, Firefox, Safari |

# Customer Requirements Specification

## Users of the System

**For Guest:**

* + Able to view, search course information, faculty information, as well as the centre information
  + Able to send messages to the centre.
  + Able to select and register a course.

**For Admin:**

* + Regularly updates website information
  + Set schedules for students to come to the centre.
  + Manages courses and faculty information.
  + Organise and reply students/guest messages.

## System functions

## Guests

***View course info***

|  |  |
| --- | --- |
| **Description** | Students/Guest can view courses information |
| **Input** | Select a course from the list |
| **Process** | Look up in the Database |
| **Output** | Display the requested course |

***Search for a course***

|  |  |
| --- | --- |
| **Description** | Students/Guest can search for a course using the search box in the homepage |
| **Input** | Student/Guest type in a keyword |
| **Process** | The website will accept and look up in the database for courses that either match the name or the course description |
| **Output** | Display the search result |

***Register a course of choice***

|  |  |
| --- | --- |
| **Description** | Student/Guest can register a course of choice using the form provided in all course information page |
| **Input** | Give the requires information such as their name, email address, home address, the centre they wanted to register into, and their referral |
| **Process** | * Check email format * Check for duplicate in the database * If there is a duplicate, display such event, if no duplicate, insert the information to the database |
| **Output** | Send a confirmation email if successful, display an error if failed |

***View faculty information***

|  |  |
| --- | --- |
| **Description** | Student/Guest can view the centre’ faculty information |
| **Input** | Select a faculty from the grid |
| **Process** | Look up in the database |
| **Output** | Display the requested information |

***Contact the centre***

|  |  |
| --- | --- |
| **Description** | Student/Guest can send a message to the centre using a provided form |
| **Input** | Gives all required information such as email, message subject and the message |
| **Process** | * Check email format, and check whether required textboxes are filled * If there are enough information, and the email format is correct, insert the message to the database |
| **Output** | Display a success message, or display an error if present |

## Admin

**Administrator (Admin) can do the following task:**

***Sign in to the control panel***

|  |  |
| --- | --- |
| **Description** | Admin can sign in to the control panel using provided username and password using the available form |
| **Input** | Type in:   * Username * Password |
| **Process** | Check in the database for the inputted information |
| **Output** | * Redirect to the website control panel if the sign in succeed * Stay at the sign in page and display an error if failed |

***Change Admin password***

|  |  |
| --- | --- |
| **Description** | Admin can change their password after signed in |
| **Input** | Type the old password, and new password twice |
| **Process** | * Connect to the database can check whether the old password match * If not match, ask admin to type again * If match, update into the database |
| **Output** | Sign out and redirect to the sign in page if the operation is successful |

***Manages course category***

|  |  |
| --- | --- |
| **Description** | Admin can manage all course category |
| **Input** | Select and use available tools for managing category |
| **Process** | * Add:   + Validate the data   + Insert into the database * Edit: Allow admin to change category name and update the change to the database * Delete:   + If there are course in the category, do not allow the delete operation   + If category is empty, it can be deleted from the database   Empty categories are not displayed on the website by default |
| **Output** | Display a success or error message where applicable |

***Manage courses***

|  |  |
| --- | --- |
| **Description** | Admin can add-edit-delete and hide courses |
| **Input** | Select and use available tools for managing courses |
| **Process** | * Add:   + Validate the data   + Insert into the database * Edit: Allow admin to change course information and update the change to the database * Delete:   + If someone registered the course, do not allow the delete operation   + If nobody is registering the course, it can be deleted from the database |
| **Output** | Display a success or error message where applicable |

***Manage faculty information***

|  |  |
| --- | --- |
| **Description** | Admin can add-edit-delete faculty information |
| **Input** | Select and use available tools for managing faculty information |
| **Process** | * Add:   + Validate the data   + Insert into the database * Edit: Allow admin to change faculty information and update the change to the database * Delete:   + If the faculty is currently marked as teaching a course, do not allow the delete operation   + If the faculty is not teaching any course, their information can be deleted from the database |
| **Output** | Display a success or error message where applicable |

***Reply to students/guest messages***

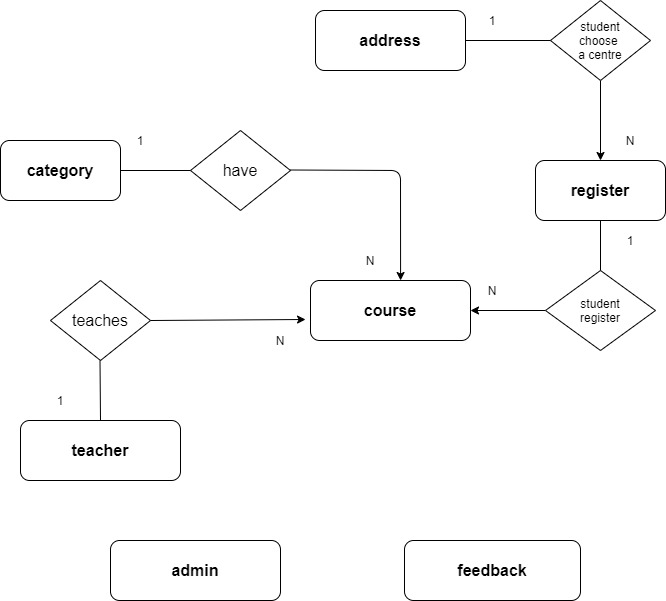
|  |  |
| --- | --- |
| **Description** | Admin can response or delete messages sent to the centre |
| **Input** | Select and use available tools for responding to messages |
| **Process** | * Reply:   + Check whether required information is valid and filled   + Send a reply email, mark the message as responded and update the changes to the database. * Delete: After getting the consent, delete the response |
| **Output** | Display a success or error message where applicable |

***Set a schedule for student***

|  |  |
| --- | --- |
| **Description** | Admin can set or change schedule for student to come to the centre |
| **Input** | Select and use available tools for setting schedules |
| **Process** | * Set a schedule:   + Enter a date in dd/mm/yyyy format   + Update the date in the database * Change a schedule:   + Enter a date in dd/mm/yyyy format   + Update the date in the database |
| **Output** | Display a success or error messages where applicable |

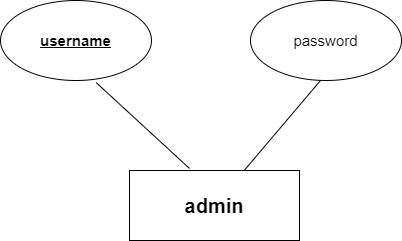
# System Designs

## Entity Relationship Diagram

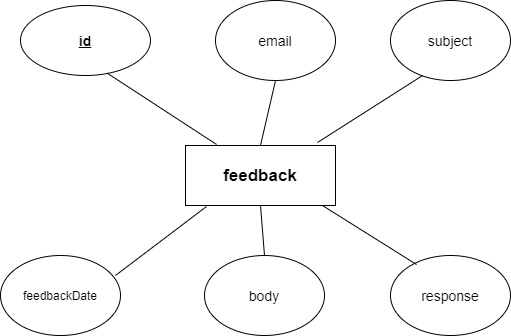


**Entity Properties:**

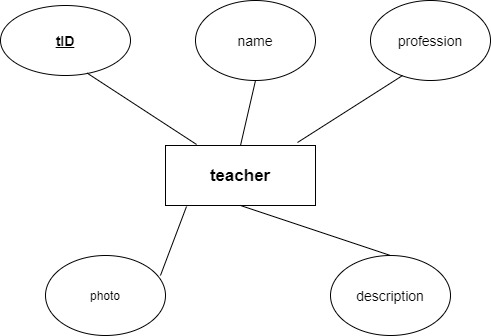
**Entity admin:**

****

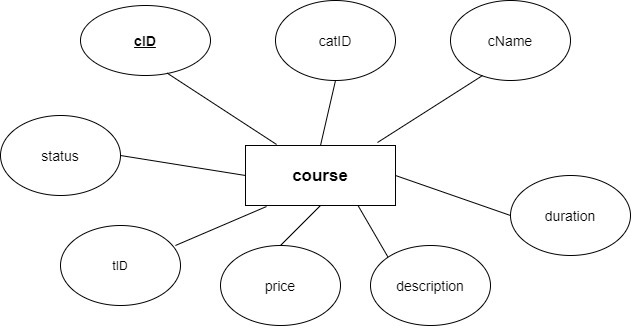
**Entity feedback:**

****

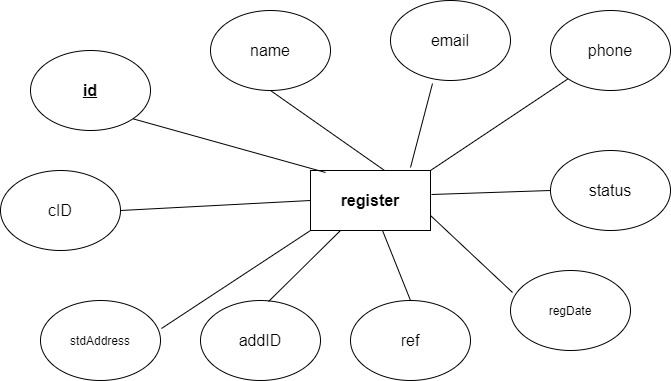
**Entity teacher:**

****

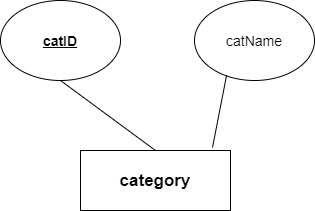
**Entity course:**

****

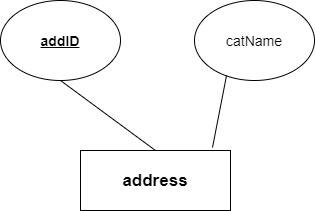
**Entity register:**

****

**Entity category:**

****

**Entity address:**

****

## Database Design

## 3.2.1. Table admin

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Properties** | **Field Name** | **Type** | **Length** | **Note** |
| Primary key | **username** | varchar | 50 | Admin account |
|  | password | varchar | 32 | Admin password |

## 3.2.2. Table address

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Properties** | **Field Name** | **Type** | **Length** | **Note** |
| Primary key  Auto-Increment | **addID** | int | 2 | Address ID |
|  | address | varchar | 500 | Address |

## 3.2.3. Table category

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Properties** | **Field Name** | **Type** | **Length** | **Note** |
| Primary key  Auto-Increment | **catID** | int | 2 | Category ID |
|  | catName | varchar | 100 | Category name |

## 3.2.4. Table feedback

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Properties** | **Name** | **Type** | **Length** | **Note** |
| Primary key  Auto-Increment | **id** | int | 3 | Message ID |
|  | feedbackDate | date |  | Message sending date |
|  | email | varchar | 250 | Sender Email |
|  | subject | varchar | 250 | Message Subject |
|  | body | longtext |  | Message body |
|  | response | bit | 1 | Response status |

## 3.2.5. Table teacher

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Properties** | **Name** | **Type** | **Length** | **Note** |
| Primary key  Auto-Increment | **tID** | int | 2 | Faculty ID |
|  | name | varchar | 100 | Faculty name |
|  | profession | varchar | 250 | Faculty best field |
|  | photo | varchar | 500 | Image file name |
|  | description | longtext |  | Faculty information |

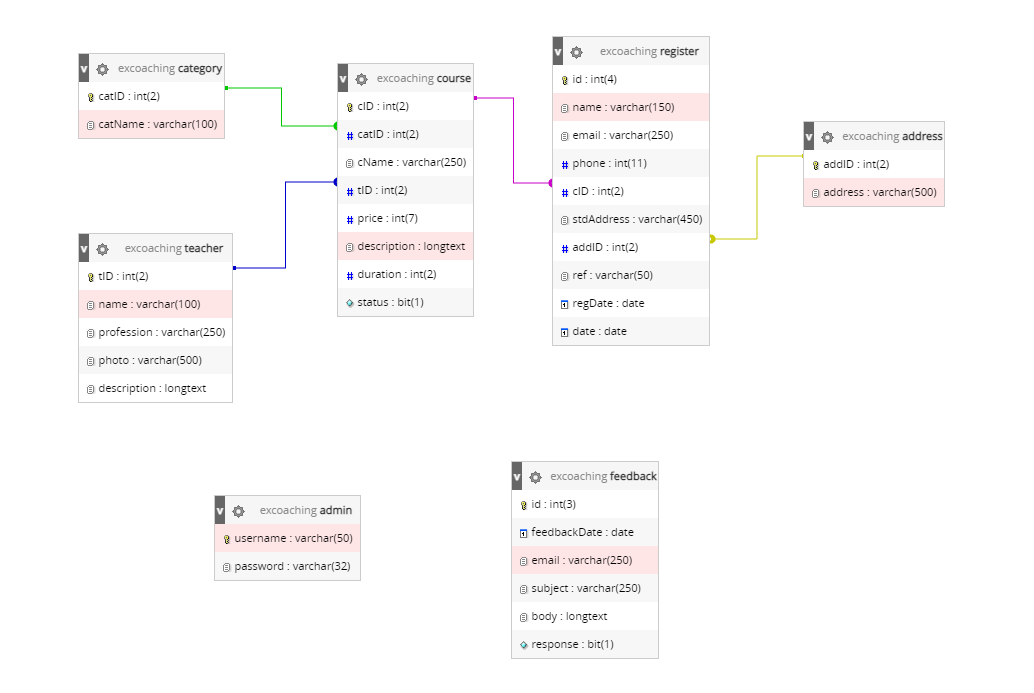
## 3.2.6. Table course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Properties** | **Name** | **Type** | **Length** | **Note** |
| Primary key  Auto-Increment | **cID** | int | 2 | Course ID |
| Foreign Key | catID | int | 2 | Reference to **category** |
|  | cName | varchar | 250 | Course name |
| Foreign Key | tID | int | 2 | Reference to **teacher** |
|  | price | int | 7 | Course fee |
|  | description | longtext |  | Course description |
|  | duration | int | 2 | Course duration |
|  | status | bit | 1 | Visibility |

## 3.2.7. Table register

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Properties** | **Name** | **Type** | **Length** | **Note** |
| Primary key  Auto-Increment | **id** | int | 2 | Register ID |
|  | name | varchar | 150 | Registrar name |
|  | email | varchar | 250 | Registrar email address |
|  | phone | int | 11 | Registration phone number |
| Foreign Key | cID | int | 2 | Reference to **course** |
|  | stdAddress | varchar | 450 | Student home address |
| Foreign Key | addID | int | 2 | Reference to **address** |
|  | ref | varchar | 50 | How does student know about the centre |
|  | regDate | date |  | Date in which student registered |
|  | date | date |  | Date Scheduled |

## 3.2.8. Table relationships



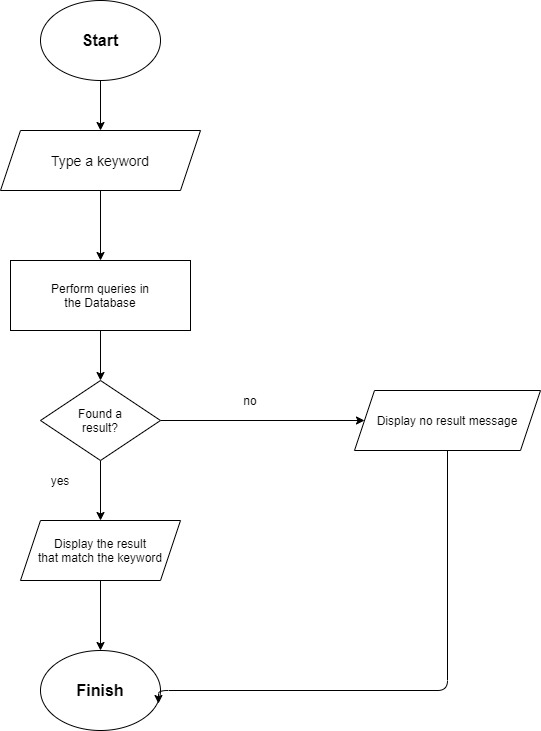
## Sitemap

## Guest

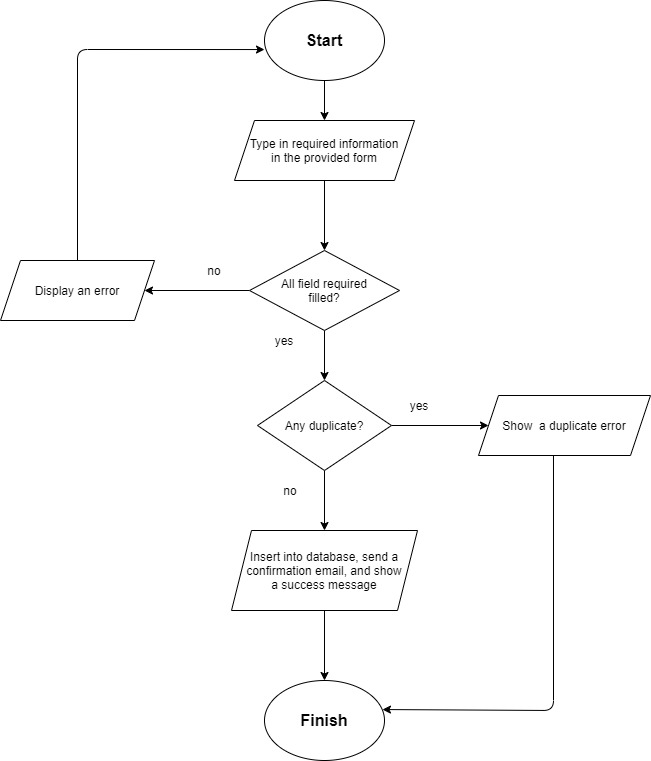
## Admin

## System functions design

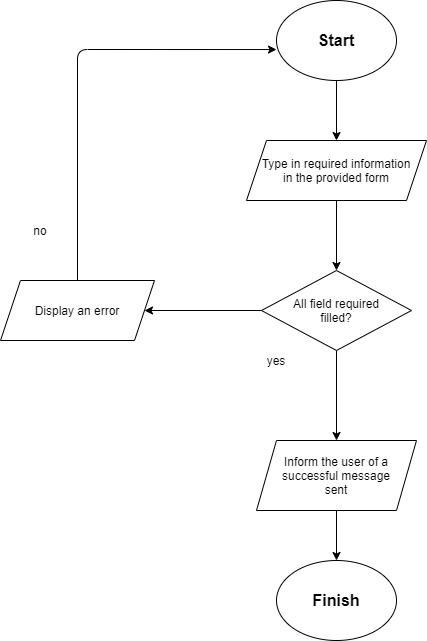
**Course searching**

****

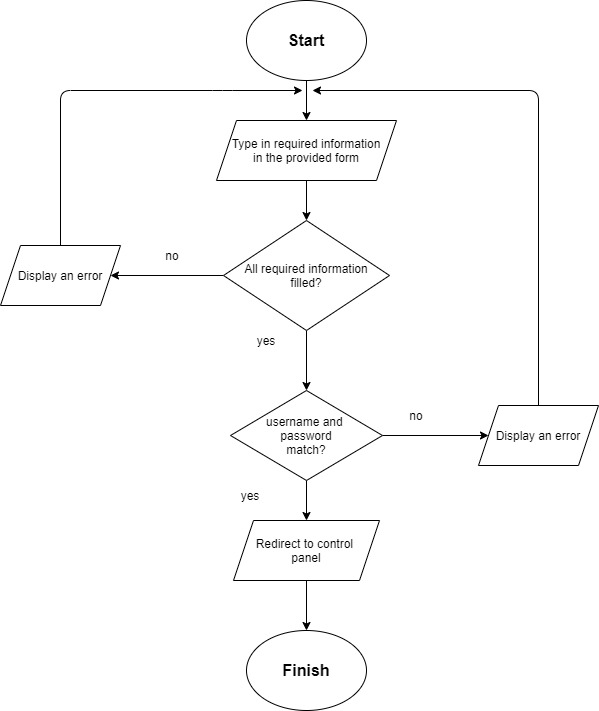
**Student register a course**

****

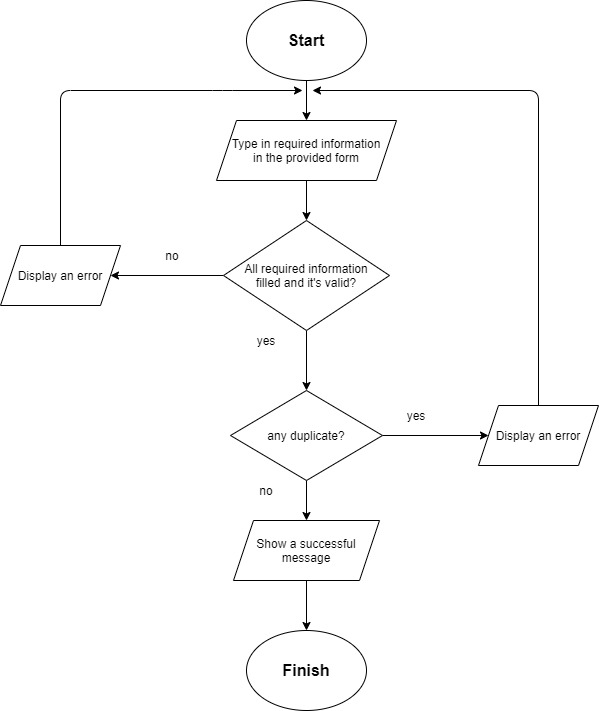
**Student/Guest send a message to the centre**

****

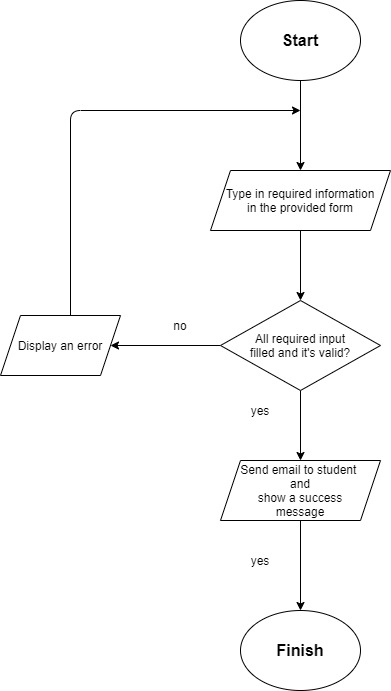
**Administrator sign in the control panel**

****

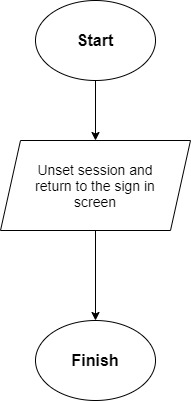
**Add a course**

****

**Administrator replying messages from students/guest**

****

**Sign out of the control panel**

****

# Task sheet

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Task** | **Start time** | **Finish time** | **Implemented by** | **Evaluation (%)** |
| **Feasibility study phase** | | | | |
| Writing documentation | 22/03/2021 | 25/03/2021 | Dinh Sy Quang  Tran Minh Tuan  Truong Vu Binh | 30 |
| Idea contribution | 18/02/2021 | 18/02/2021 | Dinh Sy Quang | 10 |
| Idea contribution | 18/02/2021 | 18/02/2021 | Tran Minh Tuan | 10 |
| Idea contribution | 18/02/2021 | 18/02/2021 | Dao Ngoc Quan | 20 |
| Checking and finalising ideas | 18/02/2021 | 18/02/2021 | Truong Vu Binh | 30 |
| **Requirement Analysis Phase** | | | | |
| Designing system diagram | 21/02/2021 | 25/02/2021 | Dinh Sy Quang | 50 |
| Designing system diagram | 21/02/2021 | 25/02/2021 | Truong Vu Binh | 50 |
| Design phase | | | | |
| Designing user interface | 26/02/2021 | 17/03/2021 | Dao Ngoc Quan | 25 |
| Designing admin interface | 18/03/2021 | 18/03/2021 | Dinh Sy Quang | 25 |
| Database creation | 26/02/2021 | 27/02/2021 | Tran Minh Tuan | 25 |
| Back-end designing | 26/02/2021 | 27/02/2021 | Truong Vu Binh | 25 |
| **Development phase** | | | | |
| Display course line-up and course information | 11/03/2021 | 12/03/2021 | Truong Vu Binh | 10 |
| Course searching at user site | 11/03/2021 | 11/03/2021 | Truong Vu Binh | 10 |
| Course registration | 12/03/2021 | 12/03/2021 | Truong Vu Binh | 10 |
| Display faculty line-up, faculty information | 15/03/2021 | 17/03/2021 | Tran Minh Tuan | 10 |
| Send message to the centre | 13/03/2021 | 13/03/2021 | Tran Minh Tuan | 10 |
| Sign in, sign out, change admin password | 19/03/2021 | 19/03/2021 | Tran Minh Tuan | 10 |
| Manage courses information and category | 19/03/2021 | 19/03/2021 | Dinh Sy Quang | 10 |
| Set schedules for students | 20/03/2021 | 20/03/2021 | Truong Vu Binh | 10 |
| Manage faculty information | 20/03/2021 | 21/03/2021 | Truong Vu Binh | 10 |
| Reply student/guest messages | 21/03/2021 | 22/03/2021 | Truong Vu Binh | 10 |
| **Testing phase** | | | | |
| Testing the registration form | 22/03/2021 | 22/03/2021 | Tran Minh Tuan | 25 |
| Testing the appearance of homepage, all information site, and faculty list site | 22/03/2021 | 23/03/2021 | Dao Ngoc Quan | 25 |
| Testing the ability to send messages to centre | 23/03/2021 | 23/03/2021 | Truong Vu Binh | 25 |
| Testing the admin page | 24/03/2021 | 24/03/2021 | Dinh Sy Quang | 25 |

# Validation Checklists

## Validation Checklist

|  |  |
| --- | --- |
| **Option** | **Validate** |
| Form input are checked to not empty | **yes** |
| Valid input type | **yes** |
| Established relationship between entities | **yes** |

## Submission Checklist

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **STT** | **Particular** | **Yes** | **No** | **NA** | **Comments** |
| **1** | All forms are in working state | Yes |  |  |  |
| **2** | No spelling mistake | yes |  |  |  |
| **3** | Used common colour | yes |  |  |  |
| **4** | All forms components are in working state | yes |  |  |  |
| **5** | Display an error when an invalid data is inputted | yes |  |  |  |