
Group Project Documentation

Basic Cross-Platform Application

Programming with .NET

<Facilities' feedback management>

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Ho Chi Minh City, 2022

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Revision History

Name	Date	Reason For Changes	Version

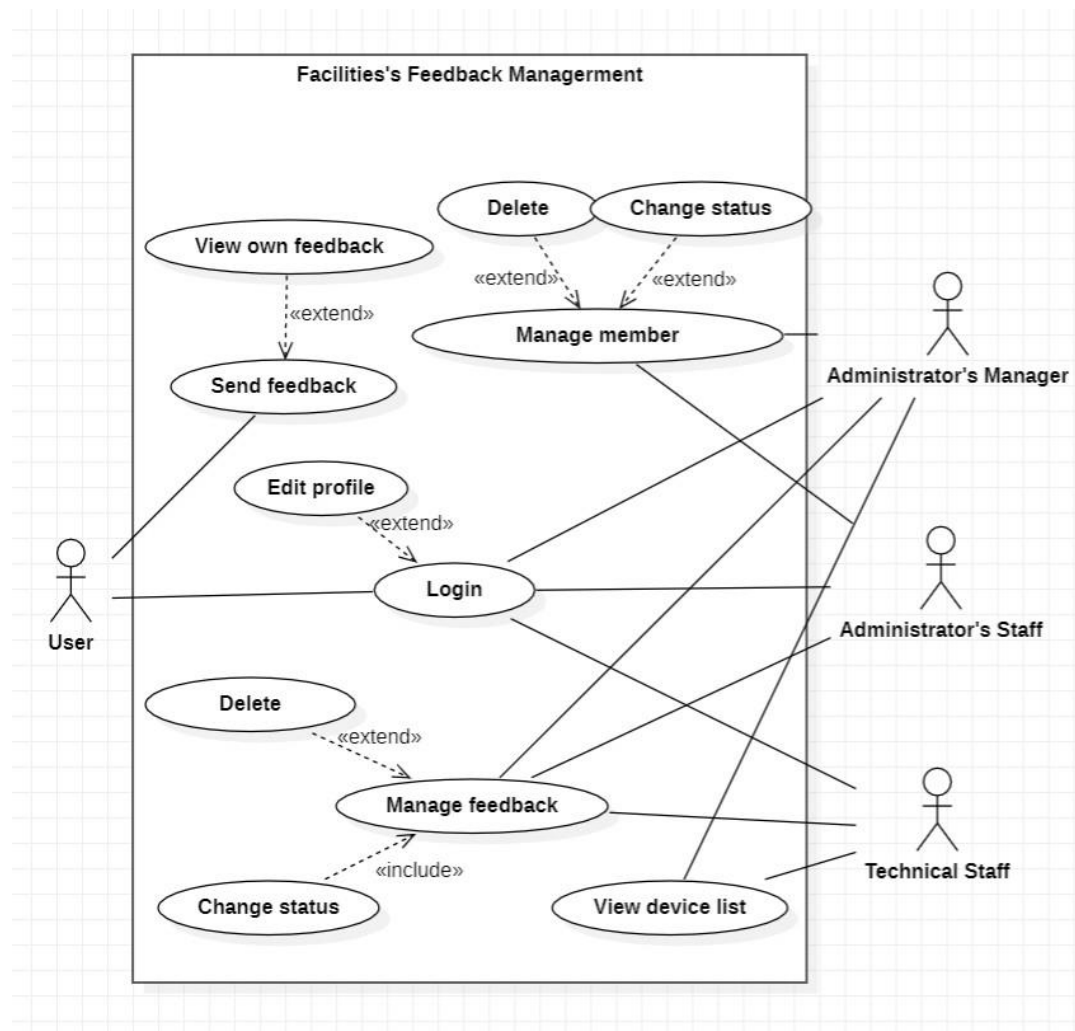
1. Project Introduction

1.1 Product Perspective

Currently, to report the status of a damaged device, it is necessary to report it directly to support, which can take a long time. Therefore, this system was built to overcome this problem.

The purpose of this system is: allowing users to send feedback directly to the system so that the employees and managers of the technical department have the information to take timely remedial measures. This system is designed to help administrators save time and money by more efficiently managing campus and off-campus facility assets.

1.2 User Classes and Characteristics



Registered users with the system will have the right to submit feedback to the school. Then, the staff of the receiving department will receive those feedbacks and consider handling them. The processing will be given to the technical staff. The employee and technical staff will have access to the statistics of the responses and their status.

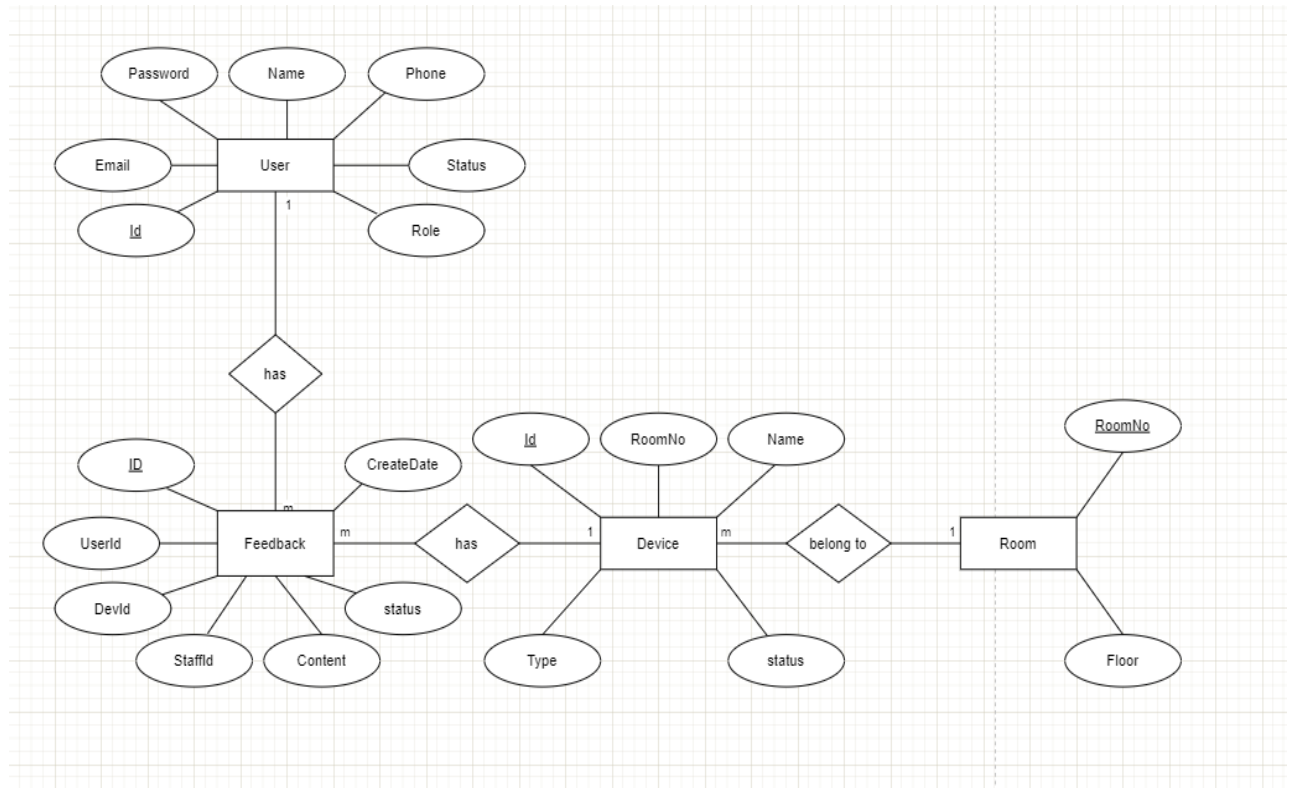
Business rules

ID	Rule Definition
BR - 1	Client must login before doing anything
BR - 2	Only Administrator can update, delete feedbacks
BR - 3	Only Administrator and Engineer Staff can change status of a feedback
BR - 4	Only Administrator's Manager and Engineer Staff can view statistics regarding facilities
BR - 5	Users can only submit feedback about devices in the database
BR - 6	Status of a feedback can only change between: Processing, Approve, Cancel
BR - 7	Statistics regarding facilities have two type: statistic by status and statistic by type
BR - 8	Only Engineer Staff can change status of Device through Feedback
BR - 9	When Administrator change status feedback to Approve, status of device will automatic change to Correcting
BR - 10	Status of Device can only change between: Faulty, Correcting, Normal
BR - 11	Status of User can only change between: Active, Inactive
BR - 12	Role of User can only change between: User, Administrator's Manager, Administrator's Staff, Engineer Staff

2. Database Design

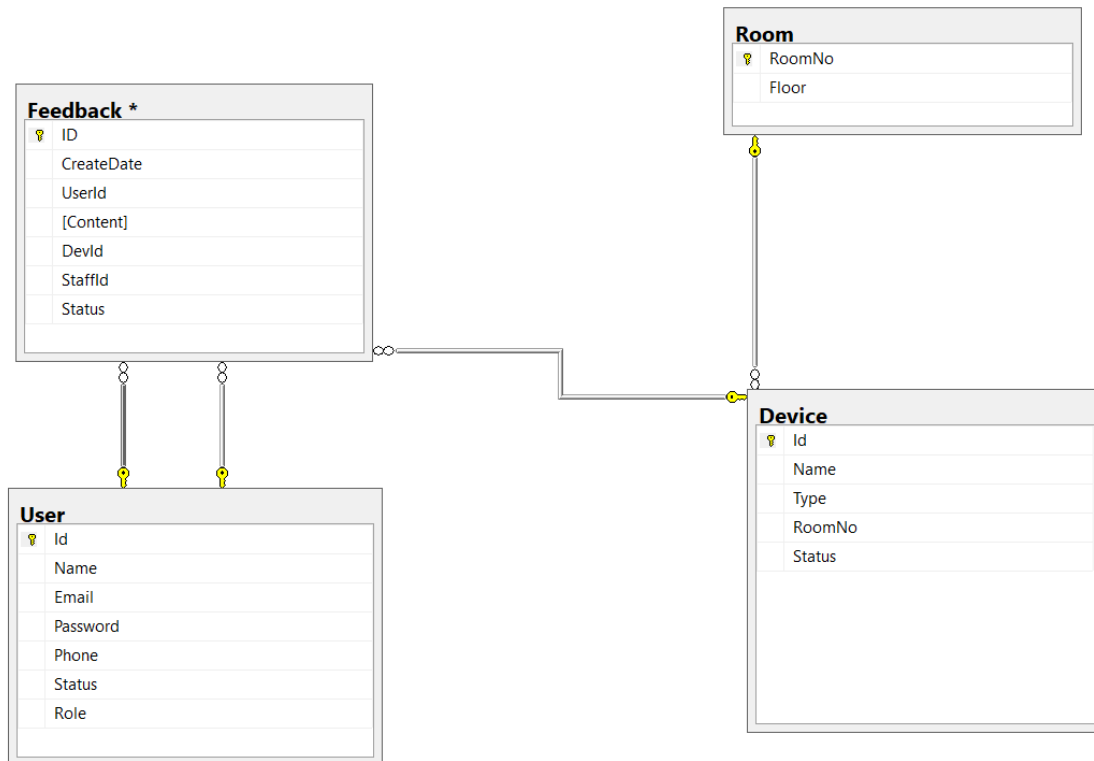
- Facilities' feedback management includes user. Each user has id, email, password, name, phone, status and role.
- Each user has role. Role can has many user but user has only 1 role. Each role has id and name. And role is used to determine user and office.
- Each user can send feedback. Feedback has id, userid, deviceid, staffid, content, createDate, status. The status has range [0,3], these are processing, complete and cancel respectively.
- Many feedback has device. Each device has id, type, name, roomNo, status. The status has range [0,3], these are damaged, usable, repair respectively.

- Many device belong to room. Each room has roomNo, floor.



3. System Architecture

Can be run on any hardware platform if they have Windows 7 operating systems or above. This project will be used at FPT Hochiminh for student, lecture, employee, administrator manager and employee in this university.



4. Implementation

4.1. Deployment Considerations

Activities that are needed to ensure an effective deployment of the solution into its operating environment :

- Planning works :
 - + Planning, implementing, coordinating personnel to monitor and control the quality of facilities.
 - + Plan to check and review the system of equipment and facilities on a daily/weekly/monthly/quarterly/yearly basis. To ensure that the equipment is always in good working condition, meeting the needs of students and teachers.
- Organizational works:
 - + Updating and summarizing the situation and current status of the infrastructure system.

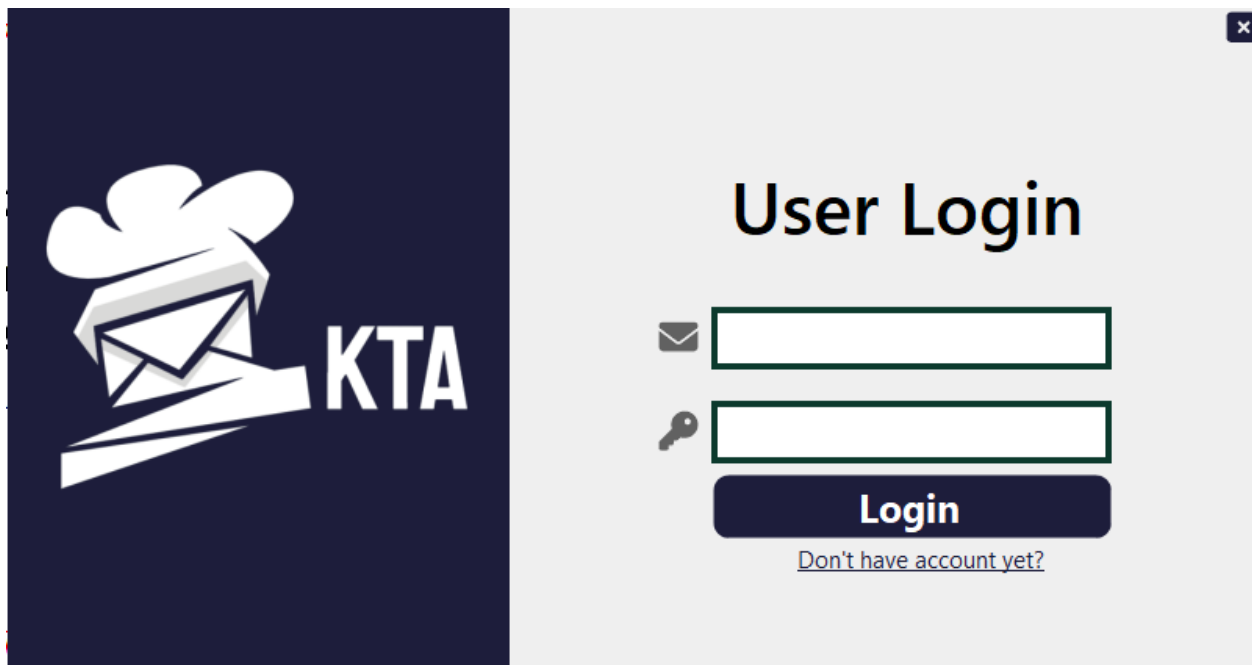
- + Statistics, monitoring, updating the list of equipment used in the classroom.
- + Receive information reflecting damage to facilities from everyone and promptly handle it.
- + Educate everyone in the sense of responsibility and sense of using facilities.

4.2. Screenshots and explanations

When user is logged in, BR-1 is used for all of them

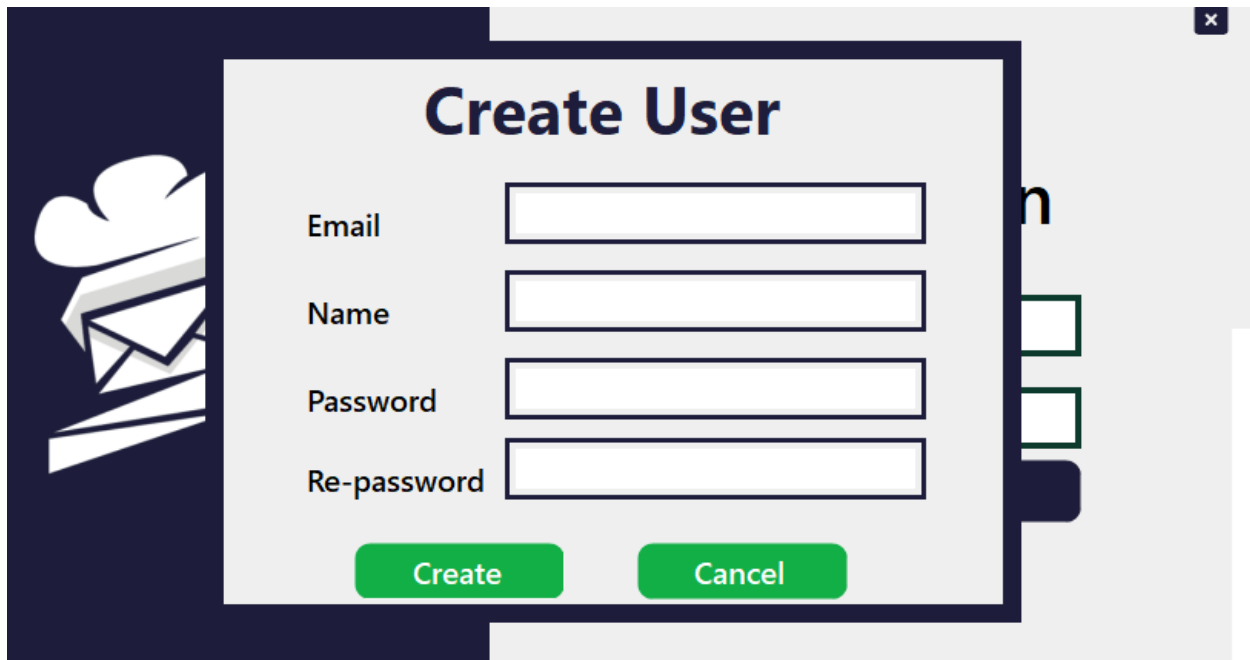
4.2.1. Login page :

This is the website's page where user can use to log in to doing any action.



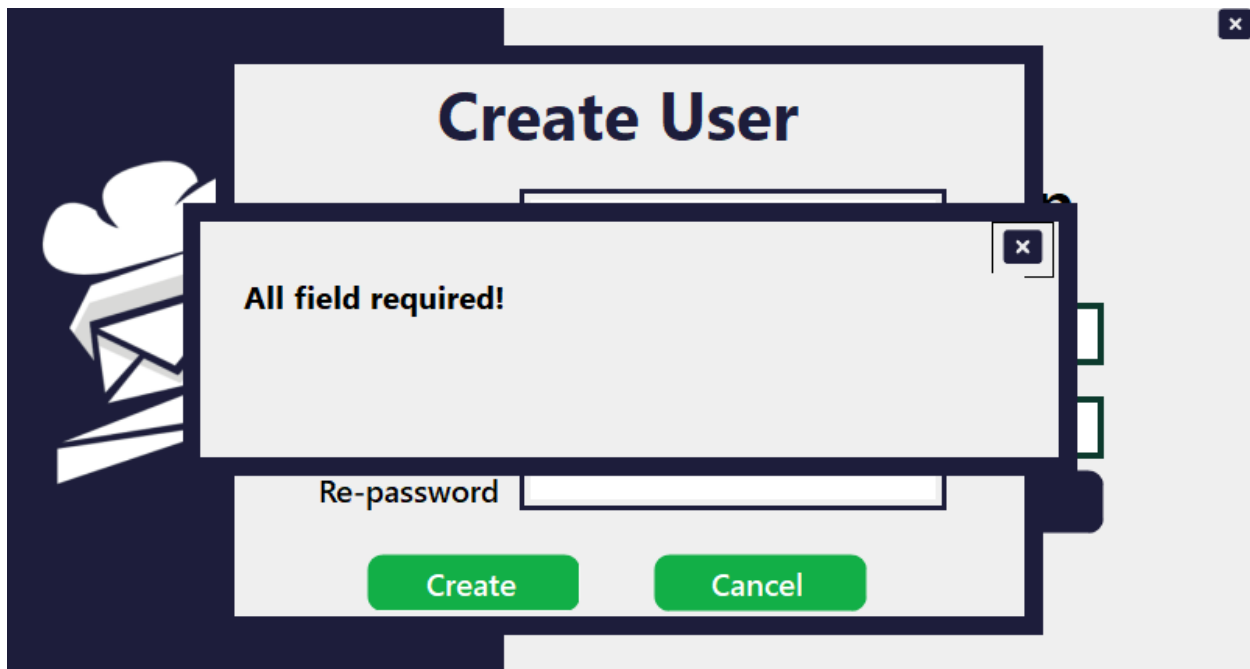
4.2.2. User login :

- If user don't have account to login then they can lick to " Don't have account yet ? " to create account



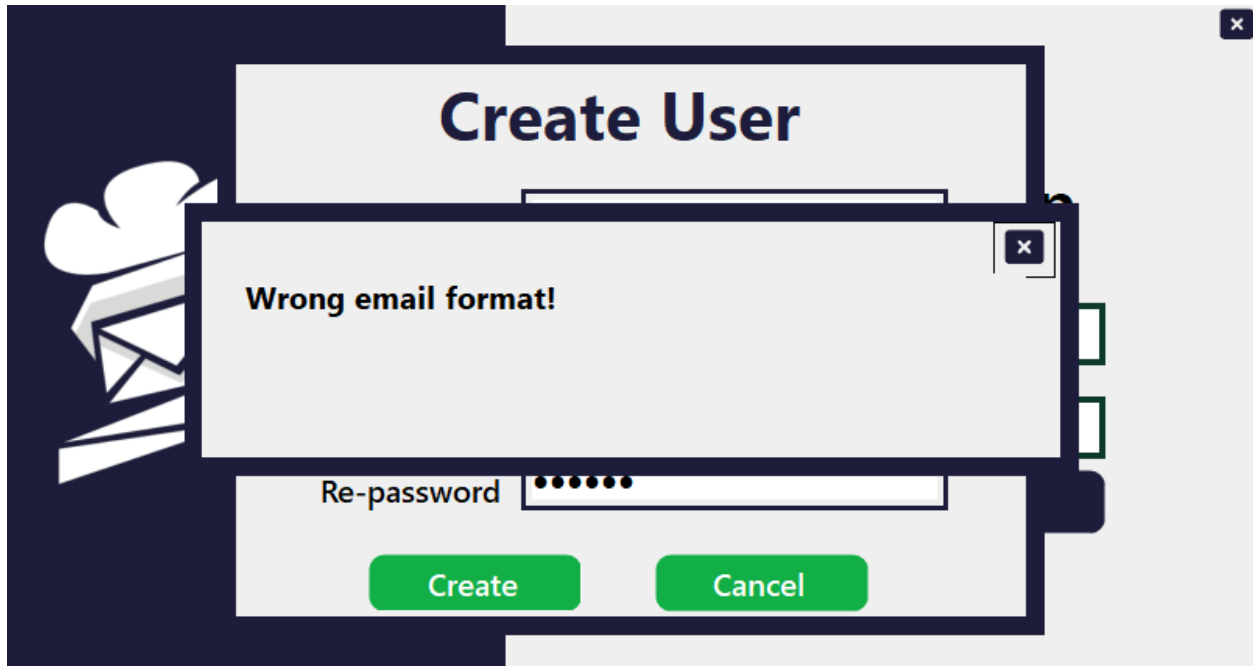
A screenshot of a 'Create User' form. The form is a light gray rectangle with a dark blue border, set against a dark blue background with a white envelope icon. The form has a title 'Create User' at the top. Below the title are four input fields: 'Email', 'Name', 'Password', and 'Re-password'. At the bottom of the form are two green buttons: 'Create' and 'Cancel'. A small dark blue square with a white 'x' is in the top right corner of the form.

- About this page, we have check three cases :
- + If left blank, the system will report " All field required"

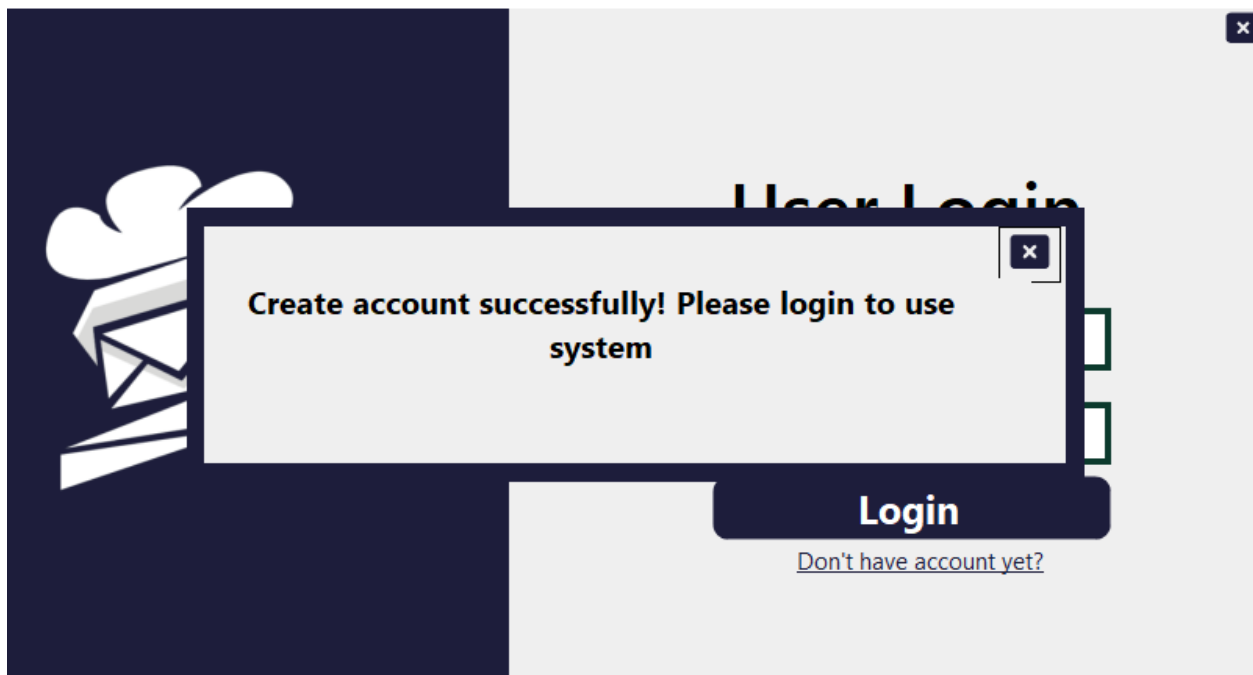


A screenshot of the 'Create User' form with an error message. The form is the same as the one above, but now it has a white error message box in the center that says 'All field required!'. The error message box has a dark blue border and a small dark blue square with a white 'x' in the top right corner. The 'Re-password' input field is visible below the error message. The 'Create' and 'Cancel' buttons are still at the bottom.

- + If the user enters the wrong email format, the system will report " Wrong email format" and force the user to re-enter it correctly



- + And if re-entered correctly, the system will report successful account creation

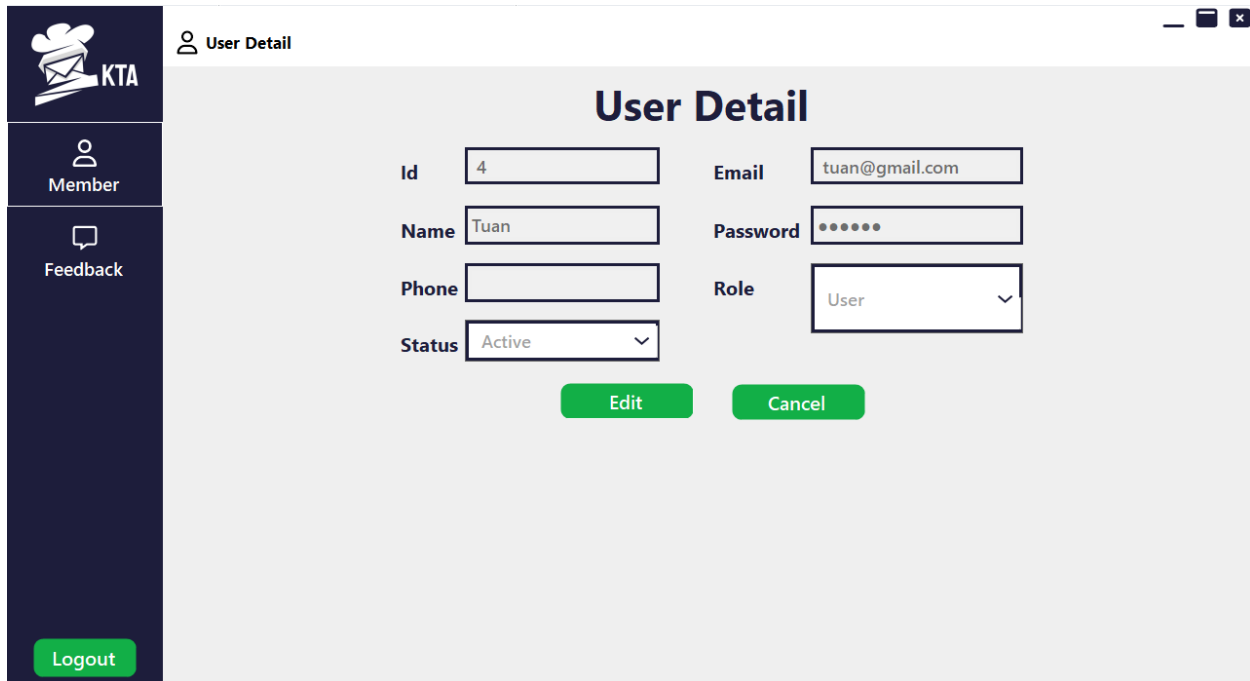


4.2.3. User Role:

- This page will show the actions that the user can do



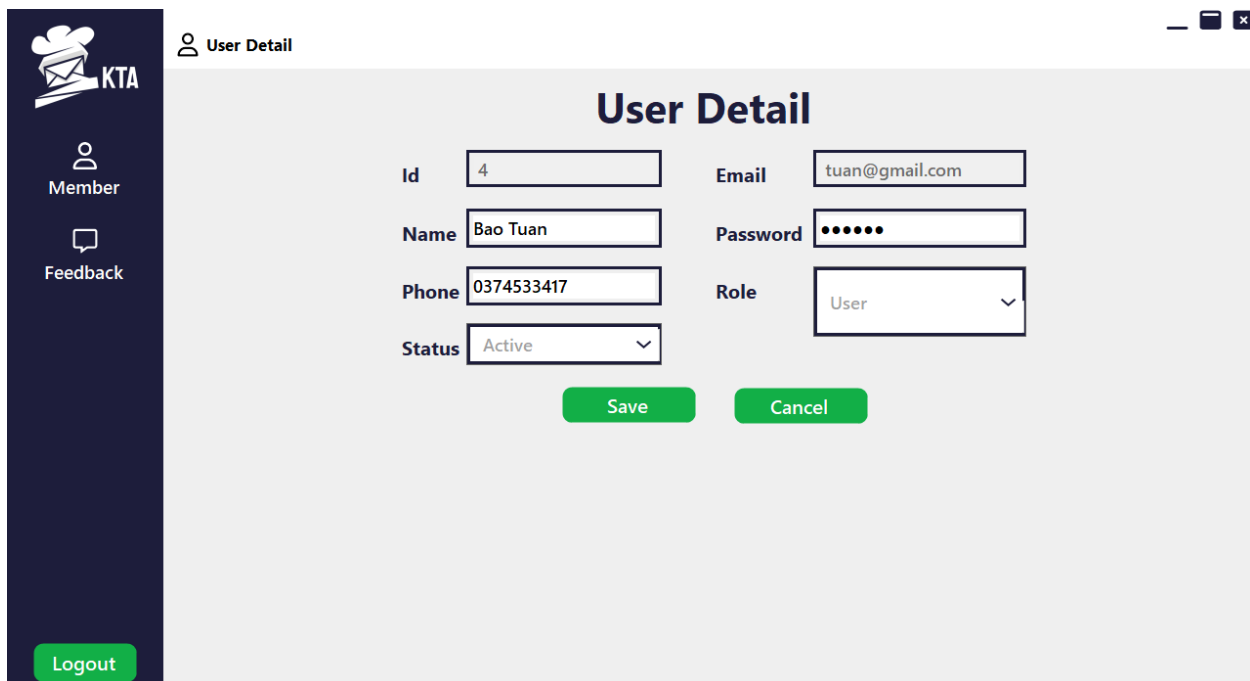
- On the "Member" item, the system will show the user about their details



User Detail

Id	<input type="text" value="4"/>	Email	<input type="text" value="tuan@gmail.com"/>
Name	<input type="text" value="Tuan"/>	Password	<input type="password" value="....."/>
Phone	<input type="text"/>	Role	<input type="text" value="User"/>
Status	<input type="text" value="Active"/>		

- Click "Edit" to adjust the information, here users can only edit " Name, Password and Phone" => Click "Save" to save edited information



User Detail

Id	<input type="text" value="4"/>	Email	<input type="text" value="tuan@gmail.com"/>
Name	<input type="text" value="Bao Tuan"/>	Password	<input type="password" value="....."/>
Phone	<input type="text" value="0374533417"/>	Role	<input type="text" value="User"/>
Status	<input type="text" value="Active"/>		

- On the " Feedback" item, the system will show the user's feedback

Feedback

Status: Processing Filter Add New

Id	CreateDate	UserId	Content	Reply	DeviceId	StaffId	Status

* Status: 0 = Processing, 1 = Approved, 2 = Rejected

- Click "Add New" , the user will record feedback to reflect on the condition of the facilities

Feedback

Status: Processing Filter Add New

Id	CreateDate	UserId	Content	Reply	DeviceId	StaffId	Status
1	13-07-2						0

Create Feedback

Device

Room: 002 ▼

Name: Bàn GV ▼


Content


Hư hỏng


Create Cancel

* Status: 0 = Processing, 1 = Approved, 2 = Rejected

- Then click Create, the feedback has been generated and sent to the Admin' Management, and the status shows "0", which means the feedback is being processed.



 Member

 Feedback

Logout

Feedback

Status: Processing Filter Add New

Id	CreateDate	UserId	Content	Reply	DeviceId	StaffId	Status
1	13-07-2022	4	Hư hỏng		8		0

* Status: 0 = Processing, 1 = Approved, 2 = Rejected

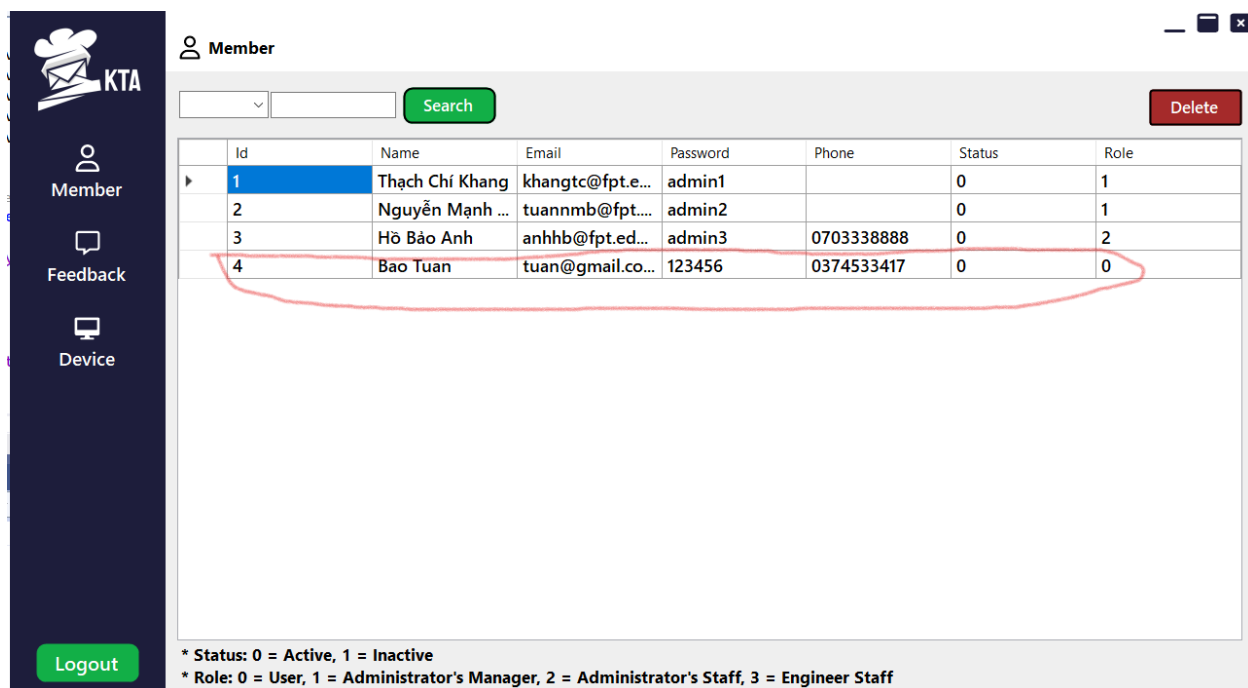
- Finally, Click "Logout" to return to the "log in" form.

4.2.4. Admin Role :

- This page will show the actions that Admin can do



- On the " Member " item, the system will show the list of members available in the database.



- Here, Admin can edit all user information status and can specify who will repair the equipment.

The screenshot shows the 'Member' management page with a sidebar containing 'Member', 'Feedback', and 'Device' options. The main area displays a table of members. A modal titled 'User Detail' is open, showing the following information for user ID 3:

Id	Name	Email	Password	Phone	Status	Role
1					1	1
2					1	1
3	Hồ Bảo Anh	anhhb@fpt.edu.vn	0703338888	Active	Engineer Staff
4					0	0

Below the table, there are 'Save' and 'Cancel' buttons. At the bottom of the modal, there are two buttons: 'Logout' and 'Delete'.

* Status: 0 = Active, 1 = Inactive
 * Role: 0 = User, 1 = Administrator's Manager, 2 = Administrator's Staff, 3 = Engineer Staff

- And after this feedback has done, admin can delete user who give a feedback
- And can't delete current User is used to login.

The screenshot shows the 'Member' management page with a sidebar containing 'Member', 'Feedback', and 'Device' options. The main area displays a table of members. A confirmation dialog titled 'Confirm Delete!!!' is open, asking 'Are you want to delete this User?'. The dialog has two buttons: 'Có' (Yes) and 'Không' (No).

Id	Name	Email	Password	Phone	Status	Role
1	Thạch Chí Khang	khangtc@fpt.e...	admin1		0	1
2	Nguyễn Mạnh ...	tuannmb@fpt....	admin2		0	1
3	Hồ Bảo Anh	anhhb@fpt.ed...	admin3	0703338888	0	3
6	Bao Tuan	tuan1@gmail.c...	12345	0374533418	0	0
7	Tuan	tuan12@gmail...	123		0	0

At the bottom of the modal, there are two buttons: 'Logout' and 'Delete'.

* Status: 0 = Active, 1 = Inactive
 * Role: 0 = User, 1 = Administrator's Manager, 2 = Administrator's Staff, 3 = Engineer Staff

- On the "Feedback" item, admin will receive user feedback and will send feedback to staff members to check and repair.

Feedback Detail

Id: 1 User: 4 Bao Tuan

Created Date: 13-07-2022

Status: Processing

Device: 8 Bàn GV Room: 002 Status: Normal

Staff: Hồ Bảo Anh

Content: Hư hỏng

Reply: Kiểm tra và sửa chữa thiết bị phòng đồ

Save Cancel

Logout

* Status: 0 = Processing, 1 = Aproved, 2 = Rejected

- Click "Save" and this feedback has been sent for staff

Feedback


Status: Processing Filter

Id	CreateDate	UserId	Content	Reply	DeviceId	StaffId	Status
1	13-07-2022	4	Hư hỏng	Kiểm tra và sửa chữa thiết bị phòng đồ	8	3	0

Logout

* Status: 0 = Processing, 1 = Aproved, 2 = Rejected

- On the " Device" item, the system will show all equipment and facilities in each classroom with normal condition, no equipment damaged.



Member

Feedback

Device

Logout

Device


Status
Faulty
Filter

Id	Name	RoomNo	Status	Type
1	Bàn GV	001	2	learning device
2	Bàn SV	001	2	learning device
3	Bảng	001	2	learning device
4	Đèn	001	2	support device
5	Máy lạnh	001	2	support device
6	Tivi	001	2	support device
7	Wifi	001	2	support device
8	Bàn GV	002	2	learning device
9	Bàn SV	002	2	learning device
10	Bảng	002	2	learning device
11	Đèn	002	2	support device
12	Máy lạnh	002	2	support device
13	Tivi	002	2	support device
14	Wifi	002	2	support device

* Status: 0 = Faulty, 1 = Correcting, 2 = Normal

4.2.5. Staff Page :

- This page will show the actions that the staff can do




Member

Feedback

Device

Logout

Home



Welcome to Facilities's Feedback Management

Contact: kta@gmail.com

- On the "Member" item, staff will see detailed information about themselves

User Detail

Id: 3 Email: anhhb@fpt.edu.vn

Name: Hồ Bảo Anh Password: •••••

Phone: 0703338888 Role: Engineer Staff

Status: Active

[Edit](#) [Cancel](#)

- On "Feedback" item, the staff will see the feedback request from the Admin that has been sent.

Feedback

Status: Processing [Filter](#) [Delete](#)

Id	CreateDate	UserId	Content	Reply	DeviceId	StaffId	Status
3	13-07-2022	6	Hư hỏng	Kiểm tra và s...	1	3	0

* Status: 0 = Processing, 1 = Approved, 2 = Rejected

- And in the "Edit" section, the staff will be able to adjust the status of "Device" and when done, will "Reply" back to the admin.

Feedback Detail

Id: 3 User: 6 Bao Tuan

Created Date: 13-07-2022

Status: Aproved

Device: 1 Bàn GV Room: 001 Status: Normal

Staff: Hồ Bảo Anh

Content: Hư hỏng

Reply: Đã kiểm tra và sửa chữa xong.

Save Cancel

Logout

* Status: 0 = Processing, 1 = Aproved, 2 = Rejected

- Then " Save" that feedback has been recorded and the "Staff" feedback will be lost because the repair has been completed.

Feedback

Status: Processing Filter

Delete

Id	CreateDate	UserId	Content	Reply	DeviceId	StaffId	Status
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Logout

* Status: 0 = Processing, 1 = Aproved, 2 = Rejected

- Check the "Admin page" and see that the feedback form will be confirmed to the Admin side that the repair is completed.

Feedback Detail

Id: 3, Created Date: 13-07-2022, Status: Approved

User: Id 6, Name Bao Tuan

Device: Id 1, Name Bàn GV, Room 001, Status Correcting

Staff: Hồ Bảo Anh

Content: Hư hỏng

Reply: Đã kiểm tra và sửa chữa xong.

Edit Cancel

Logout * Status: 0 = Processing, 1 = Aproved, 2 = Rejected

- Check the " User Page" also have same result

Feedback Detail

Id: 3, Created Date: 13-07-2022, Status: Approved

User: Id 6, Name Bao Tuan

Device: Id 1, Name Bàn GV, Room 001, Status Correcting

Staff: Hồ Bảo Anh

Content: Hư hỏng

Reply: Đã kiểm tra và sửa chữa xong.

Edit Cancel

Logout * Status: 0 = Processing, 1 = Aproved, 2 = Rejected

5. References

- RJ Code Advance EN (<https://www.youtube.com/c/RJCodeAdvanceEN>).
 - Learning to design UI
 - Learning to custom some tool like textbox, button, ...
- FontAwesome.Sharp (<https://fontawesome.com/>)