

ASSIGNMENT 2 FRONT SHEET

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Student declaration I certify that the assignment submission is entirely my own work and I fully understand the consequences of plagiarism. I understand that making a false declaration is a form of malpractice.			
		Student's signature	Dat

Grading grid

P4	P5	P6	M3	M4	M5	D2	D3

☐ Summative Feedback:

☐ Resubmission Feedback:

Grade:

Assessor Signature:

Date:

Lecturer Signature:

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I. Introduction.

In this assignment, I'll guide colleagues through a thorough evaluation of my website training system, building on the Assignment 1 design. I've created a formal questionnaire to gather insights on aspects like business application, problem definition, proposed solution, and development strategy (P4). Colleagues' feedback will be crucial for refining the design. Afterward, I'll proceed to the development phase using chosen technologies and methodologies. The final product will undergo rigorous testing, scrutinizing its performance against the Software Requirement Specification (P5). This process aims to analyze factors influencing performance, reflecting on the design, development, and testing stages' strengths and weaknesses. In conclusion, a reflective discussion on previously identified risks will justify opportunities for improvement and further development, ensuring a robust and effective business application (P6).

II. Effectively reviews my business application (P4).

1. Survey

I've carefully designed a survey to gather valuable feedback from colleagues, focusing on crucial aspects of my business application. The questionnaire explores core components, such as the clarity of the problem definition, viability of the proposed solution, and effectiveness of the development strategy. Through structured questions, I aim to extract insightful opinions on the overall design and conceptual framework. This approach ensures a thorough examination of the project, helping me assess strengths and weaknesses for informed adjustments, ultimately optimizing the solution's effectiveness. The survey comprises 11 questions.

How well does the website address potential concerns or challenges related to its application?					
1	2	3	4	5	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

To what degree does the website consider scalability for future updates and enhancements?					
1	2	3	4	5	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

How well does the website leverage technology to enhance the functionality of its application?					
1	2	3	4	5	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

Figure 1: Survey question (1)

How well does the FPT Training System website present its overall application functionality?				
1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To what extent does the website effectively address specific user needs within its application?				
1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How clear and concise is the presentation of the key features within the application?				
1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To what degree does the website's application align with industry standards for similar systems?				
1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How well does the website showcase the practical use cases of its application?				
1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 2: Survey question (2)

How effectively does the website communicate the benefits of using its application to potential users?

1 2 3 4 5

☐ ☐ ☐ ☐ ☐

To what extent does the application cater to the specific needs and preferences of its intended users?

1 2 3 4 5

☐ ☐ ☐ ☐ ☐

How clearly does the website define the scope and limitations of its application?

1 2 3 4 5

☐ ☐ ☐ ☐ ☐

Figure 3: Survey question (3)

And this is answer of the survey:



Figure 4: Survey answer (1)

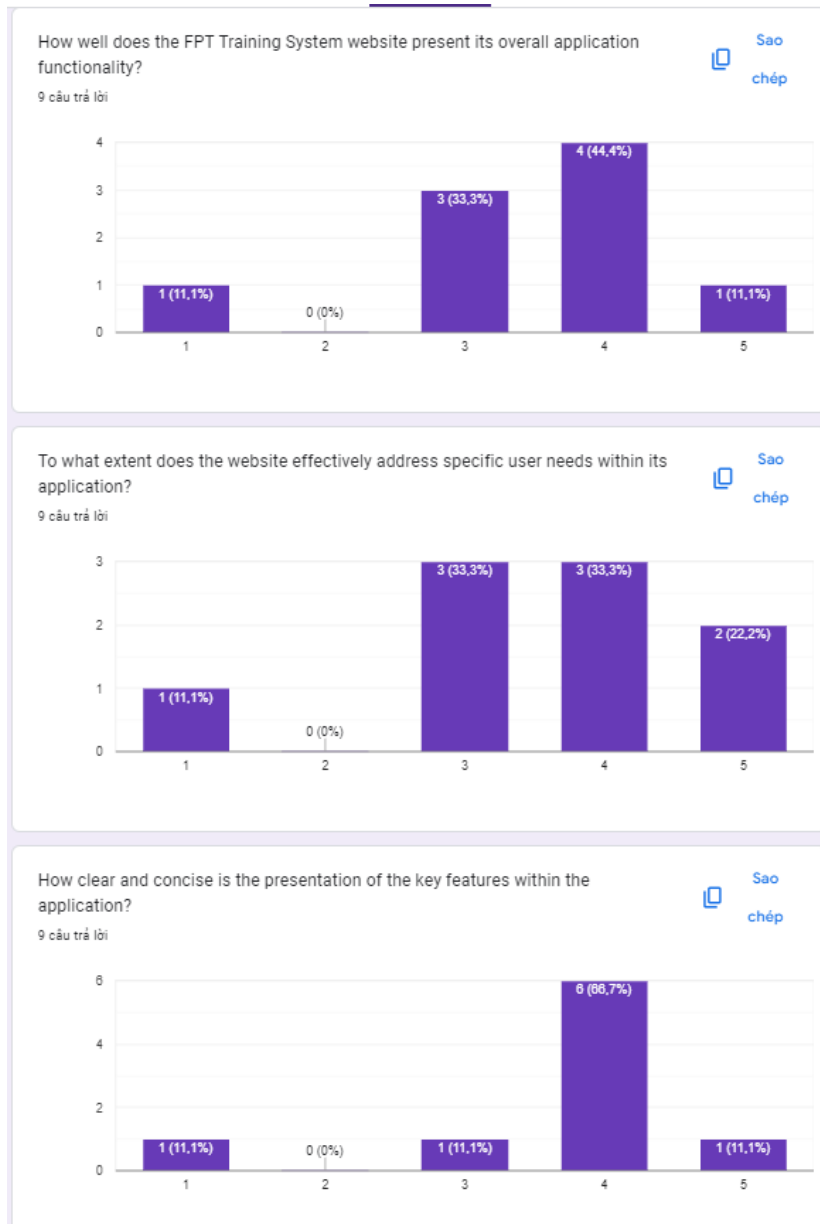


Figure 5: Survey answer (2)



Figure 6: Survey answer (3)

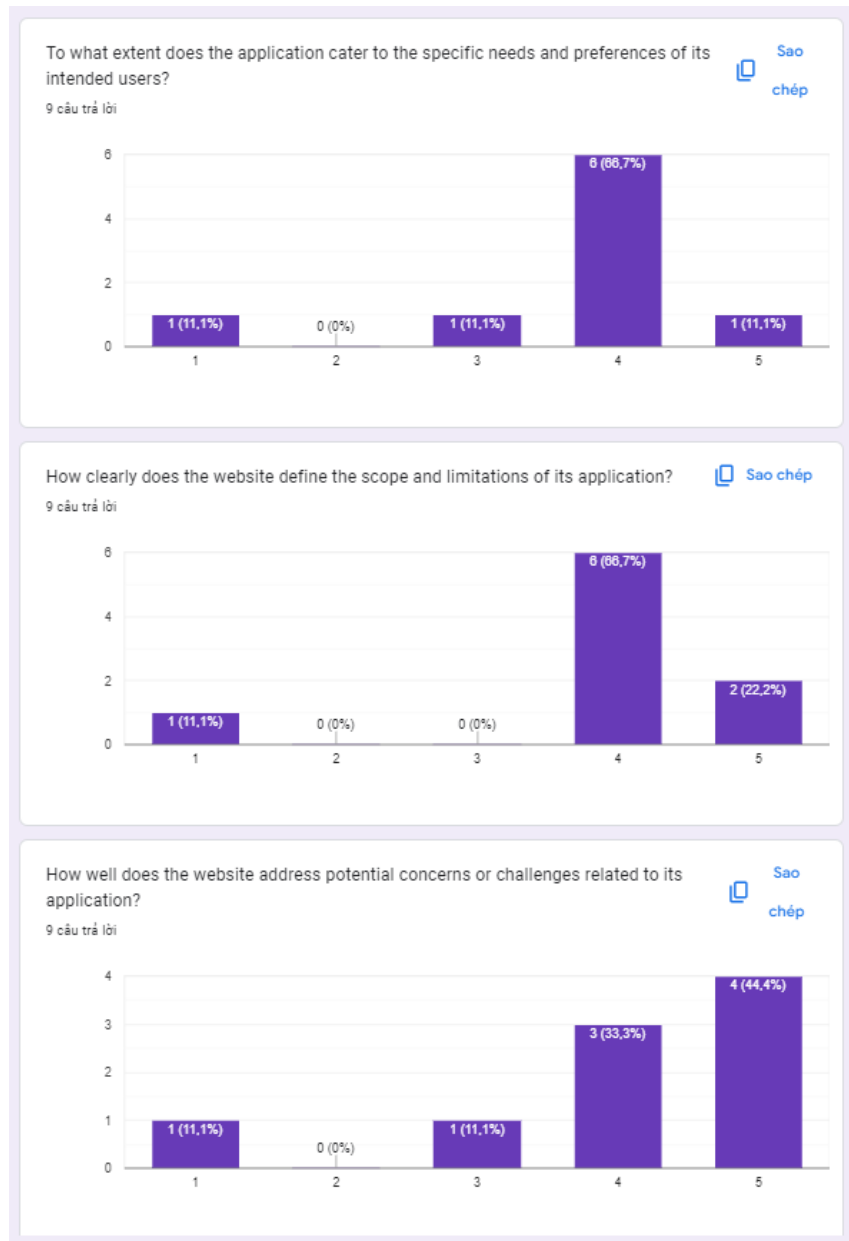


Figure 7: Survey answer (4)

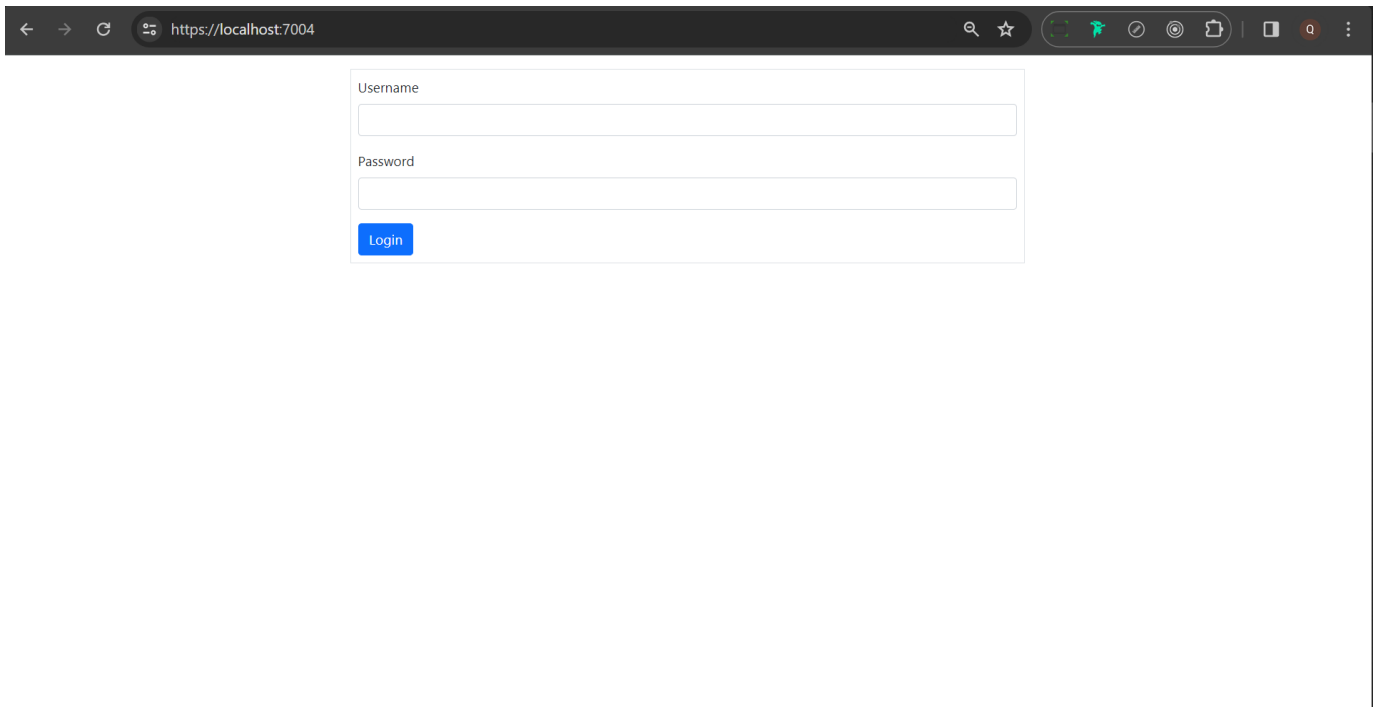
The survey feedback is largely positive, with colleagues acknowledging the website's clarity and effectiveness in addressing challenges. Positive responses highlight adept technology use, a clear scope, and responsiveness to user needs. However, areas for improvement include addressing user needs more effectively and enhancing communication strategies to articulate the application's benefits clearly. This feedback provides valuable insights and a roadmap for refining the application to better cater to user requirements and improve communication with potential users.

2. Modified after survey

I am dedicated to implementing the CRUD model (Create, Read, Update, Delete) across all application features to comprehensively address user requests. This strategic approach ensures a seamless and efficient user experience, allowing users to effortlessly create, view, modify, and delete data. To enhance user clarity, technical identifiers like IDs or file names will be replaced with more user-friendly alternatives, prioritizing names for concise representations. The design will also offer flexibility by allowing easy customization of the main color, providing a personalized and visually appealing experience. To effectively communicate the application's benefits, I'm committed to continuous quality improvement, actively listening to user feedback, and employing targeted advertising and marketing strategies for broader visibility. These efforts aim to exceed user expectations, fostering a positive perception among both existing and prospective users.

III. Develop a functional business application based on a specified business problem (P5).

My website includes 3 actors: Admin, Training staff and Trainer. The functions of the 3 actors are as follows. First of all, to access the system, all actors must log in.



The screenshot shows a web browser window with the address bar displaying "https://localhost:7004". The main content area contains a login form with the following elements:

- A "Username" label above a text input field.
- A "Password" label above a text input field.
- A blue "Login" button below the password field.

Figure 8: Login

The user logs into the system using the username and password stored in the system. If the user enters the wrong username or password, the user will receive the message: Account invalid. If you can log

into the system, the website will check the user's role. If you are an admin or training staff, the website will redirect to the Account manager function. If the user is a trainer, the website will redirect to the Home manager function.

1. Admin

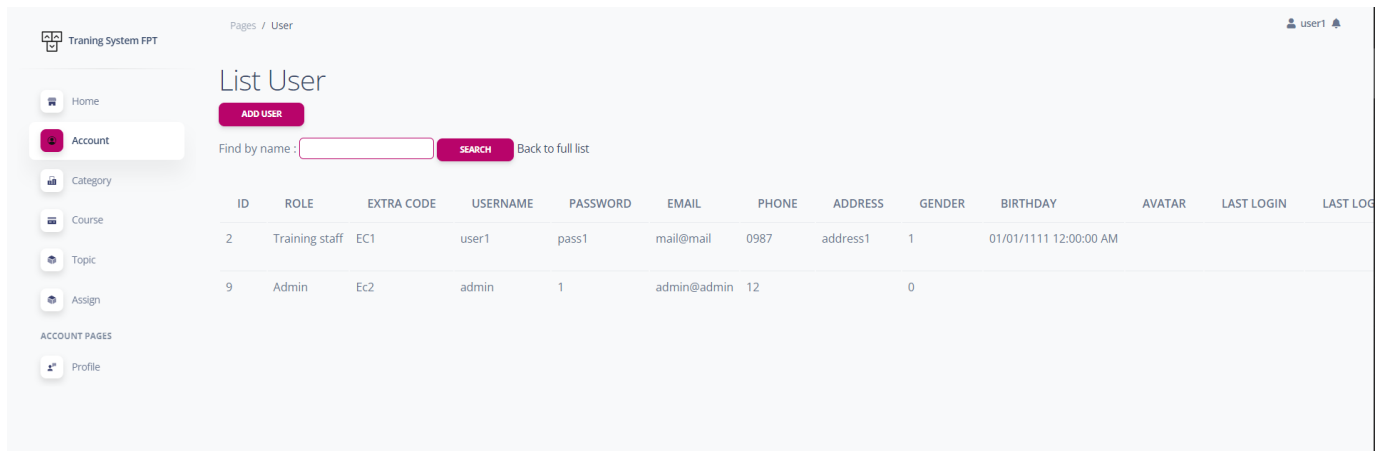


Figure 9: Account manager (1)

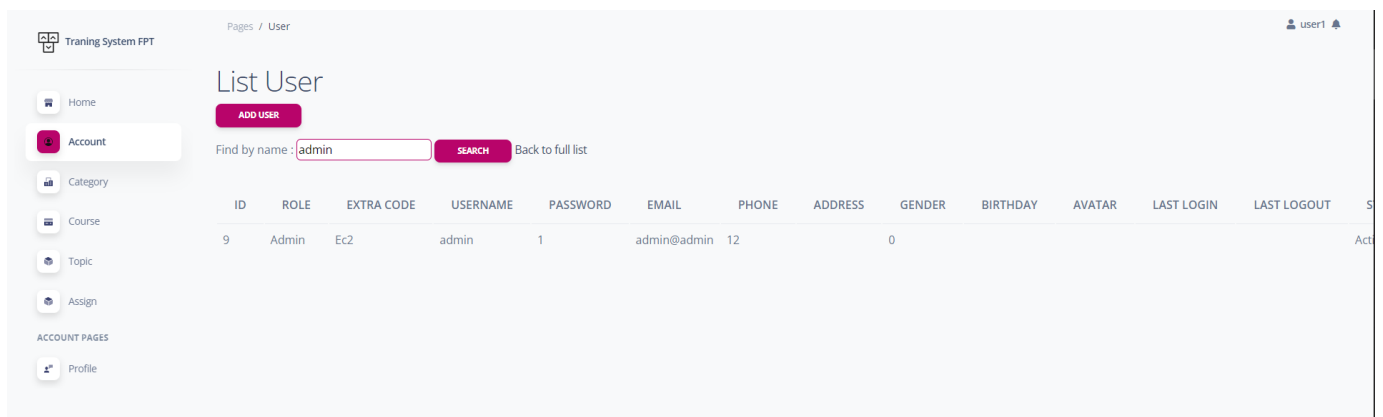


Figure 10: Search account

After logging into the system, the admin will have the right to manage the entire account. Create, read, update, delete all other accounts. create, read, update for accounts with the same Admin role. You can search accounts based on Username or Email.

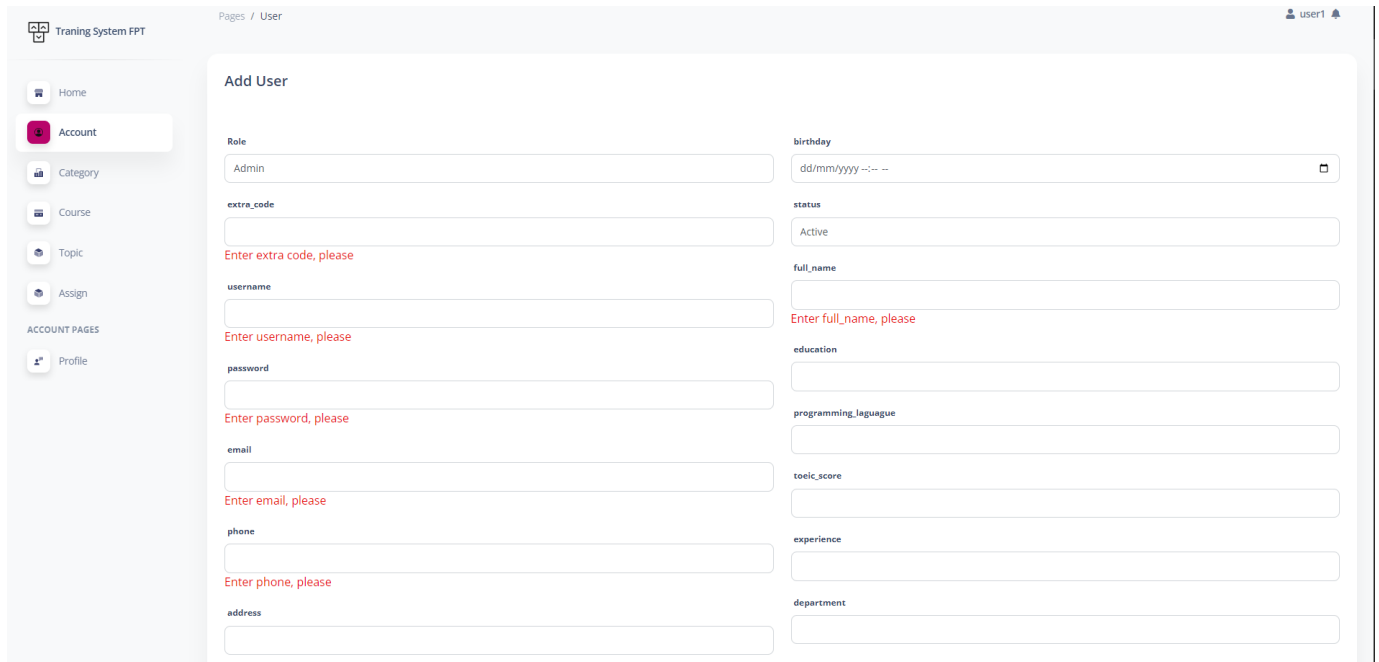
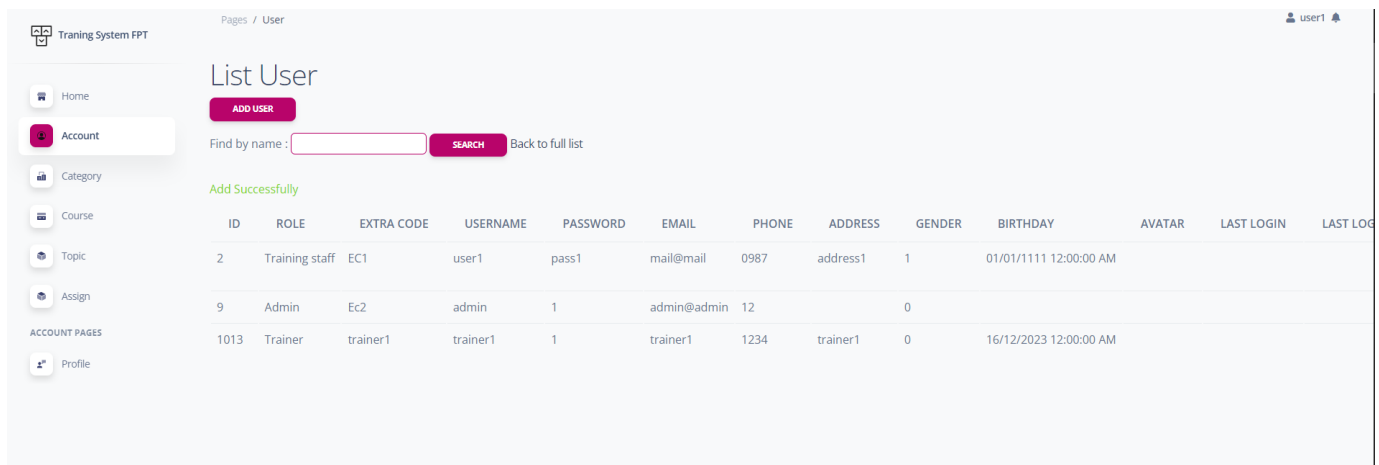


Figure 11: Add account (1)

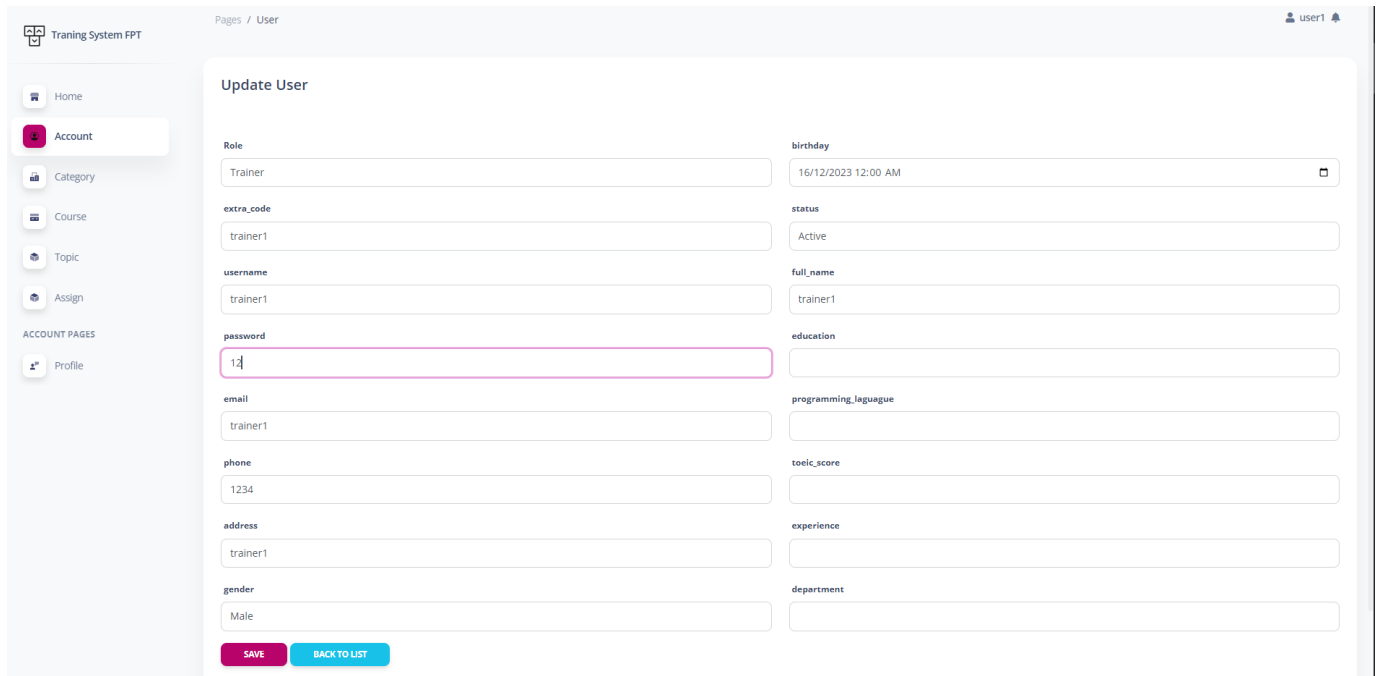
When creating a new account, the admin will have to fill in all required information fields before adding, including: extra code, username, password, email, phone and fullname.



ID	ROLE	EXTRA CODE	USERNAME	PASSWORD	EMAIL	PHONE	ADDRESS	GENDER	BIRTHDAY	AVATAR	LAST LOGIN	LAST LOG
2	Training staff	EC1	user1	pass1	mail@mail	0987	address1	1	01/01/1111 12:00:00 AM			
9	Admin	Ec2	admin	1	admin@admin	12		0				
1013	Trainer	trainer1	trainer1	1	trainer1	1234	trainer1	0	16/12/2023 12:00:00 AM			

Figure 12: Add account (2)

Once all required fields are filled in, an account will be created. If it is not a Trainee, the account will be allowed to log into the system.



Update User

Role: Trainer birthday: 16/12/2023 12:00 AM

extra_code: trainer1 status: Active

username: trainer1 full_name: trainer1

password: 1234 education:

email: trainer1 programming_language:

phone: 1234 toefl_score:

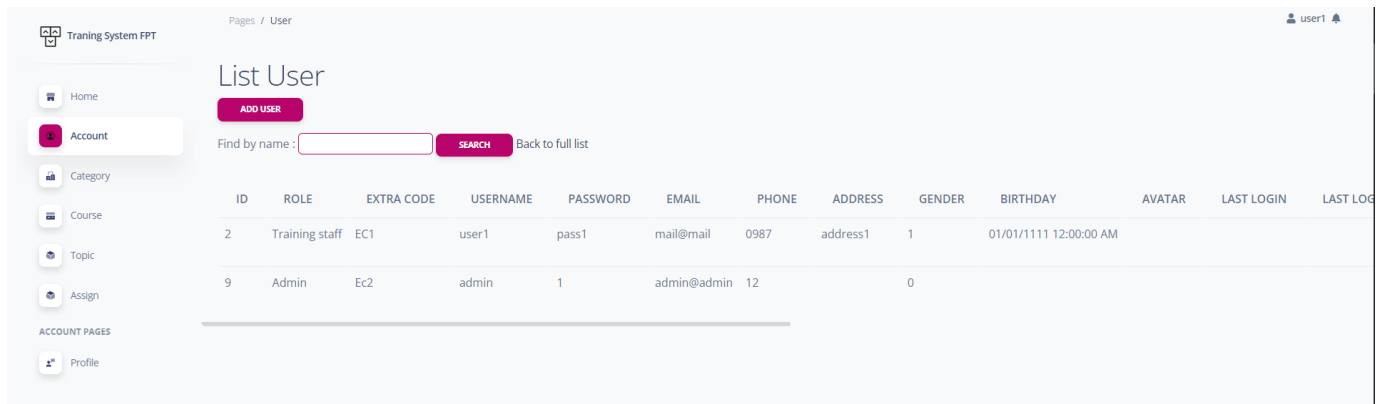
address: trainer1 experience:

gender: Male department:

SAVE **BACK TO LIST**

Figure 13: Update account

After filling in all required fields, click save. The account will be updated, the website will redirect to account management.



List User

ADD USER

Find by name: **SEARCH** [Back to full list](#)

ID	ROLE	EXTRA CODE	USERNAME	PASSWORD	EMAIL	PHONE	ADDRESS	GENDER	BIRTHDAY	AVATAR	LAST LOGIN	LAST LOG
2	Training staff	EC1	user1	pass1	mail@mail	0987	address1	1	01/01/1111 12:00:00 AM			
9	Admin	Ec2	admin	1	admin@admin	12		0				

Figure 14: Delete account

After clicking the delete button, the account will be deleted, the website will update the latest data and display it to the user.

2. Training staff

- Account manager

For training staff, the account manager will only apply to other training staff accounts, trainer accounts and trainee accounts.

Traning System FPT

- Home
- Account
- Category
- Course
- Topic
- Assign

ACCOUNT PAGES

- Profile

LOGOUT	STATUS	CREATED AT	UPDATED AT	FULL NAME	EDUCATION	PROGRAMMING LANGUAGE	TOEIC SCORE	EXPERIENCE	DEPARTMENT	ACTION
0		16/12/2023 7:27:15 PM		full	edu1	pro1	10			EDIT
Active		16/12/2023 7:27:15 PM		admin						

Figure 15: Training staff account manage

- Category manager

The account manager feature of training staff is similar to that of admin. includes create, read, update, delete (only for training staff, trainers and trainees).

Traning System FPT

Pages / Category

user1

List Categories

[ADD CATEGORY](#)

Find by name : [SEARCH](#) [Back to full list](#)

ID	NAME	ICON	DESCRIPTION	STATUS	CREATED AT	UPDATED AT	ACTION
----	------	------	-------------	--------	------------	------------	--------

Figure 16: Category manage

Category management includes create, read, update, delete category. Training staff can also search based on the category name.

Traning System FPT

Pages / Category

user1

ACCOUNT PAGES

- Profile

Add New Category

name

description

status

Photo No file chosen

[SAVE](#) [BACK TO LIST](#)

Figure 17: Add Category

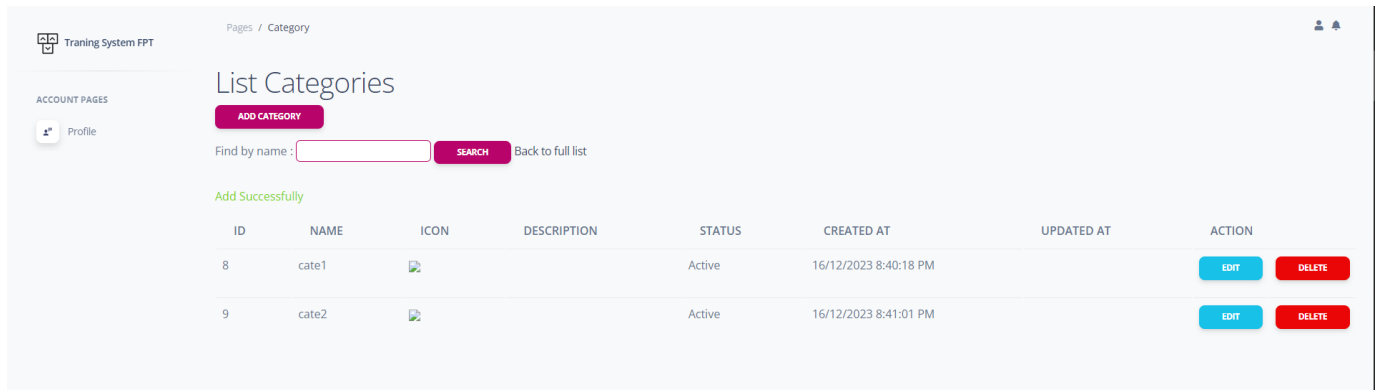


Figure 18: Add category successful

After filling in the necessary information, training staff can add a new category

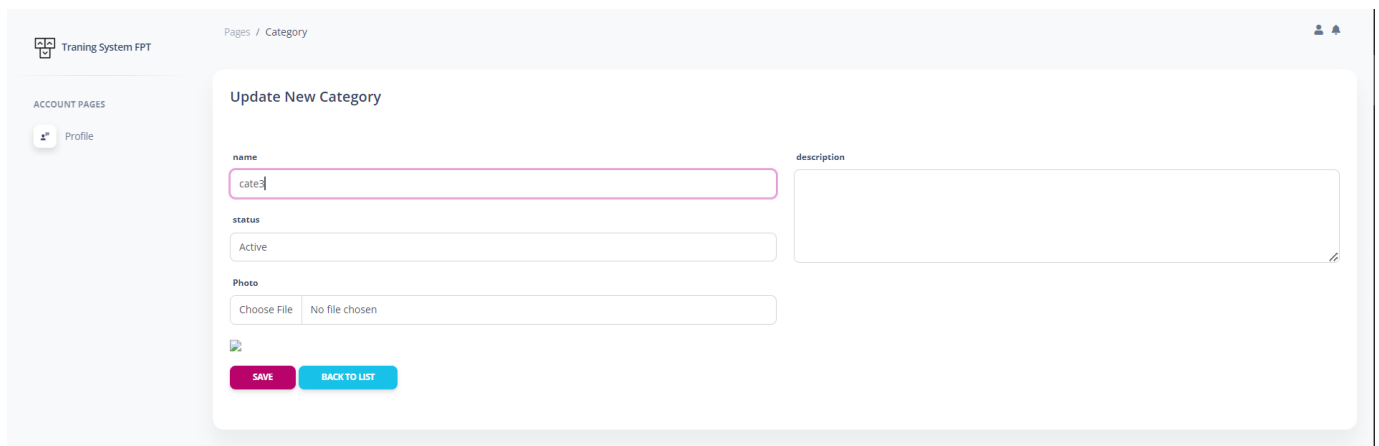


Figure 19: Update category

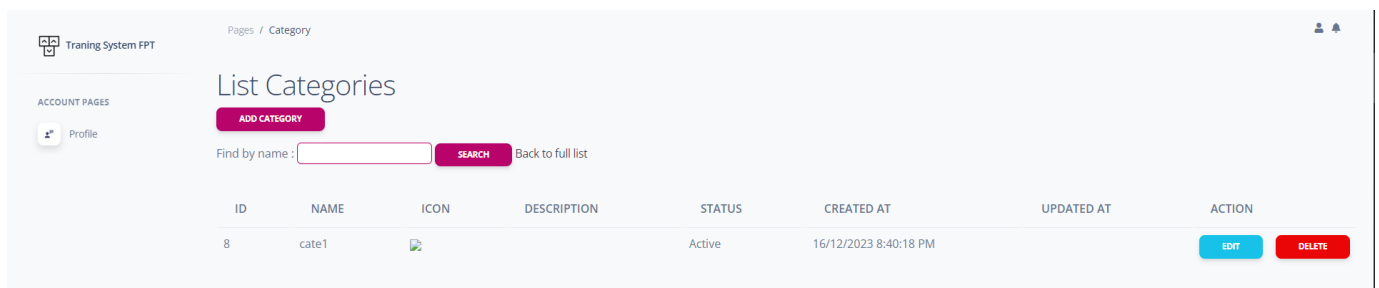


Figure 20: Delete category

After having a new category, training staff can edit or delete the created category.

- Course manager

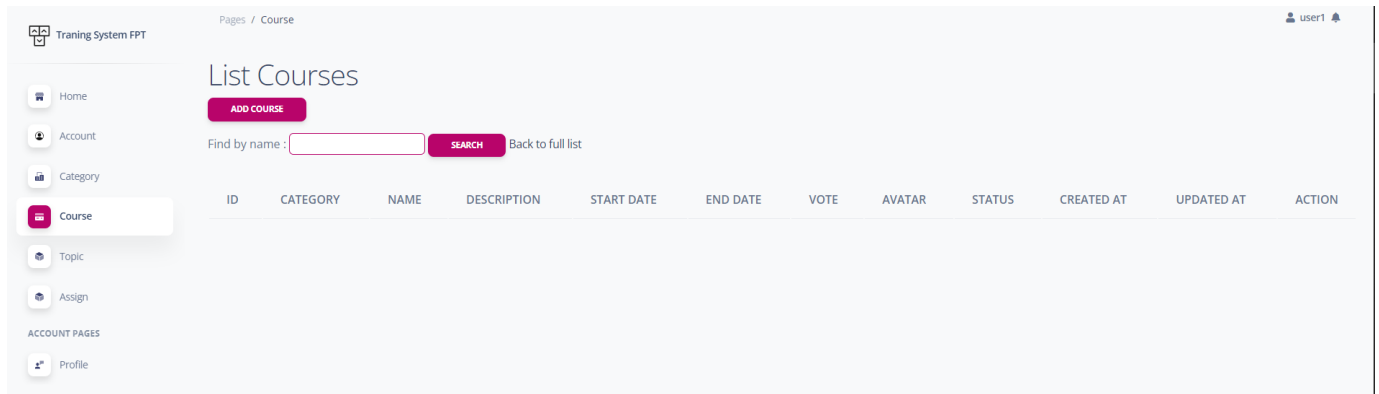


Figure 21: Course manager

Similar to category manager, course manager also has full CRUD. Training staff can search by course name. When creating new course, fill in the required fields and create a new course. Edit and delete when the course is available.

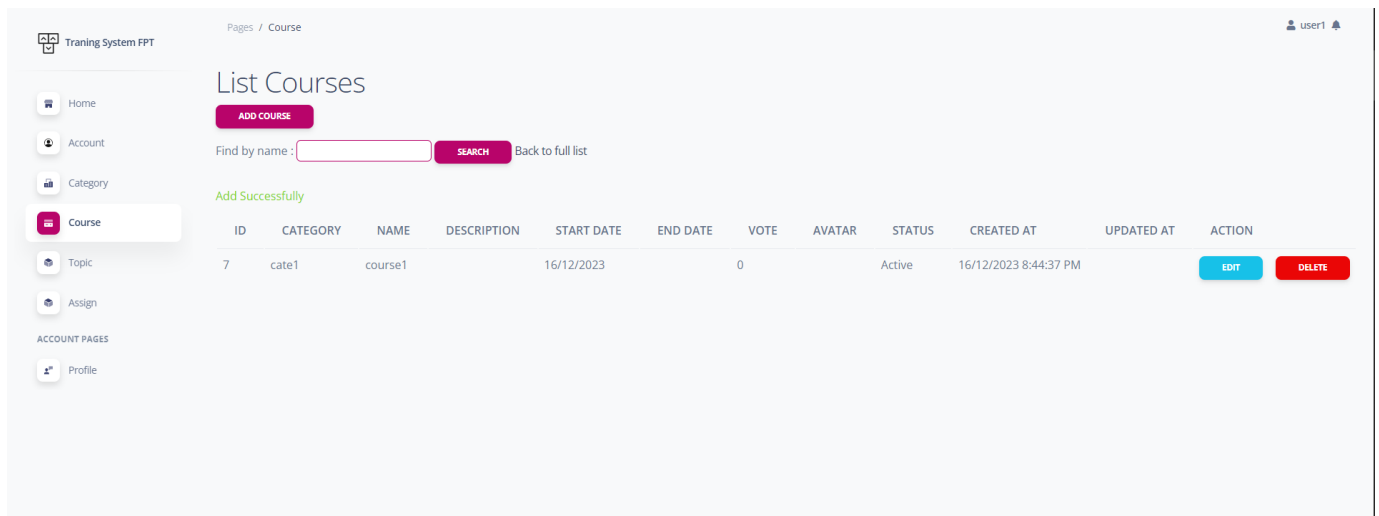
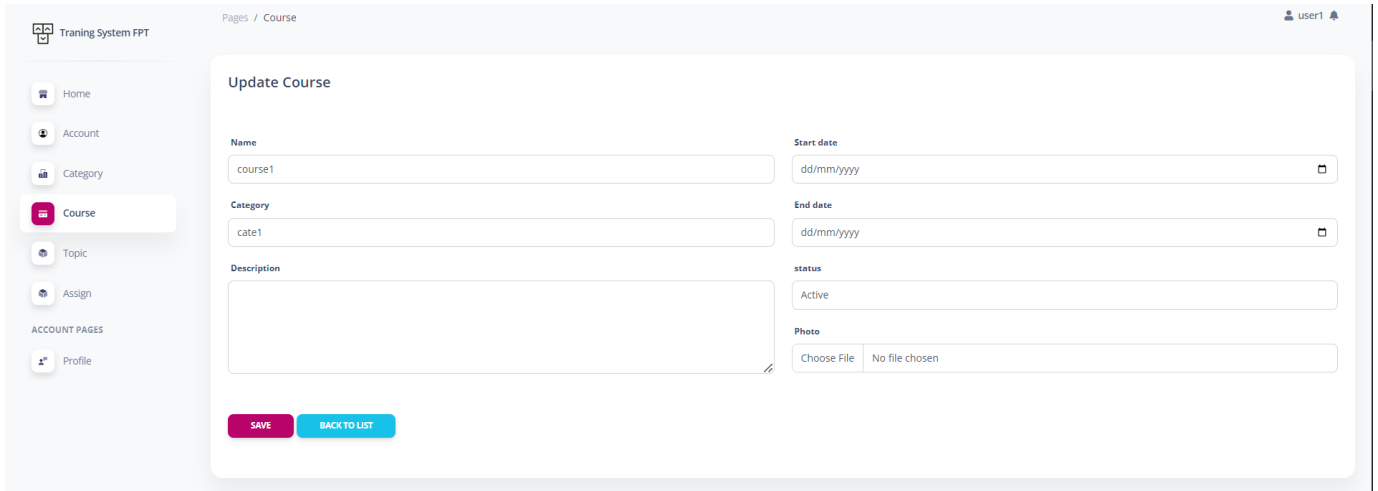


Figure 22: Add course successful



Training System FPT Pages / Course user1

Update Course

Name
course1

Start date
dd/mm/yyyy

Category
cate1

End date
dd/mm/yyyy

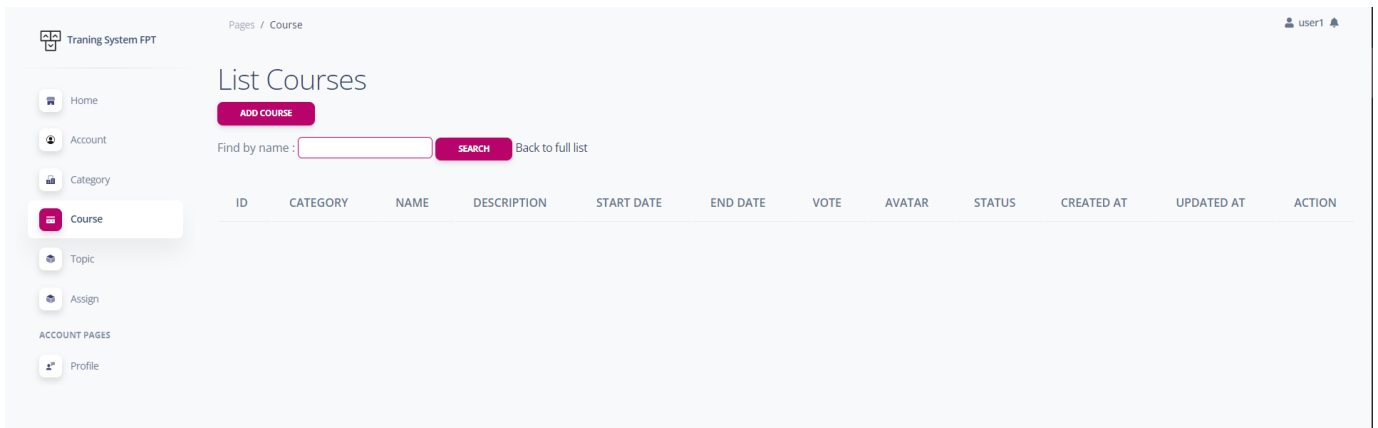
Description

Status
Active

Photo
Choose File No file chosen

SAVE **BACK TO LIST**

Figure 23: Edit course



Training System FPT Pages / Course user1

List Courses

ADD COURSE

Find by name : **SEARCH** [Back to full list](#)

ID	CATEGORY	NAME	DESCRIPTION	START DATE	END DATE	VOTE	AVATAR	STATUS	CREATED AT	UPDATED AT	ACTION
----	----------	------	-------------	------------	----------	------	--------	--------	------------	------------	--------

Figure 24: Delete course

- Topic

Similar to course manager, topic manager also has full CRUD. Training staff can search by topic name. When creating new topic, fill in the required fields and create a new topic. Edit and delete when the topic is available.

Traning System FPT

Pages / Topic

user1

Home

Account

Category

Course

Topic

Assign

ACCOUNT PAGES

Profile

Add New Topic

Name

topic1

Course ID

course1

Description

Videos

Choose File

No file chosen

Documents

Choose File

No file chosen

Attach File

Choose File

No file chosen

Status

Active

SAVE

BACK TO LISTS

Pages / Topic

Traning System FPT

User1

Home

Account

Category

Course

Topic

Assign

ACCOUNT PAGES

Profile

List Topic

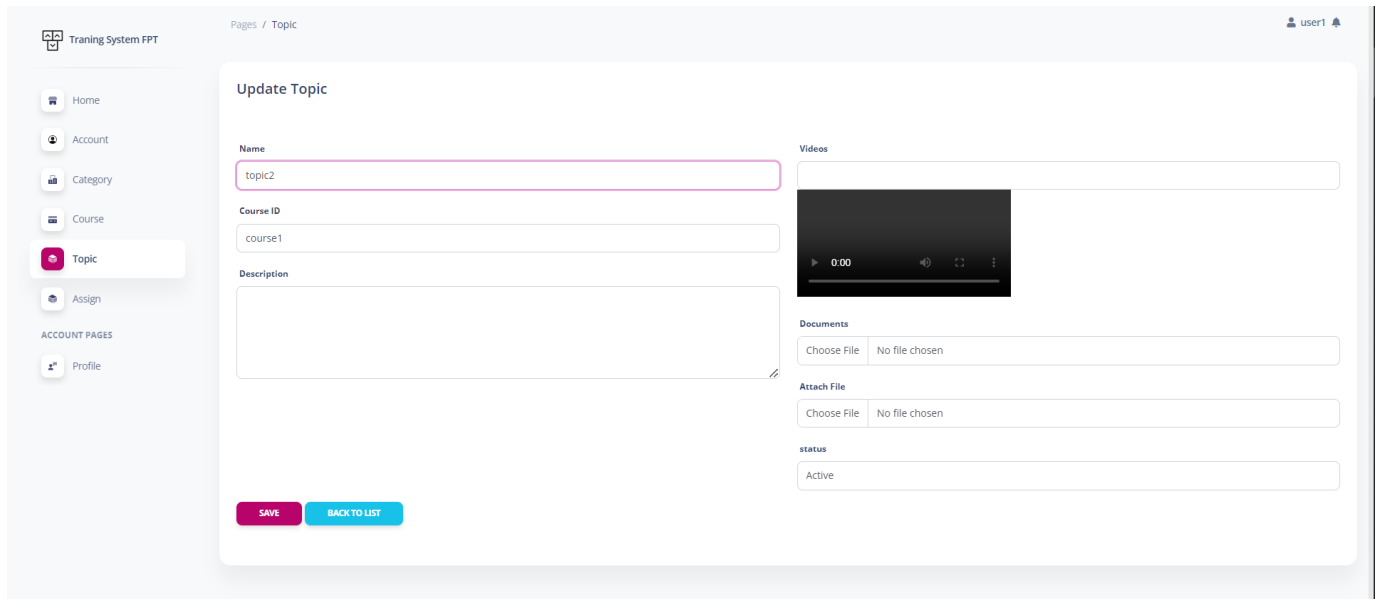
ADD TOPIC

Find by name : SEARCH Back to full list

Add Successfully

ID	COURSE ID	NAME	DESCRIPTION	VIDEOS	DOCUMENTS	ATTACH FILE	STATUS	CREATED AT	UPDATED AT	ACTION
1012	course1	topic1			Download	Download	Active	16/12/2023 8:46:21 PM		<div>EDIT</div> <div>DELETE</div>

Figure 27: Add topic successful



Training System FPT

Pages / Topic

user1

Home

Account

Category

Course

Topic

Assign

ACCOUNT PAGES

Profile

Update Topic

Name:

Course ID:

Description:

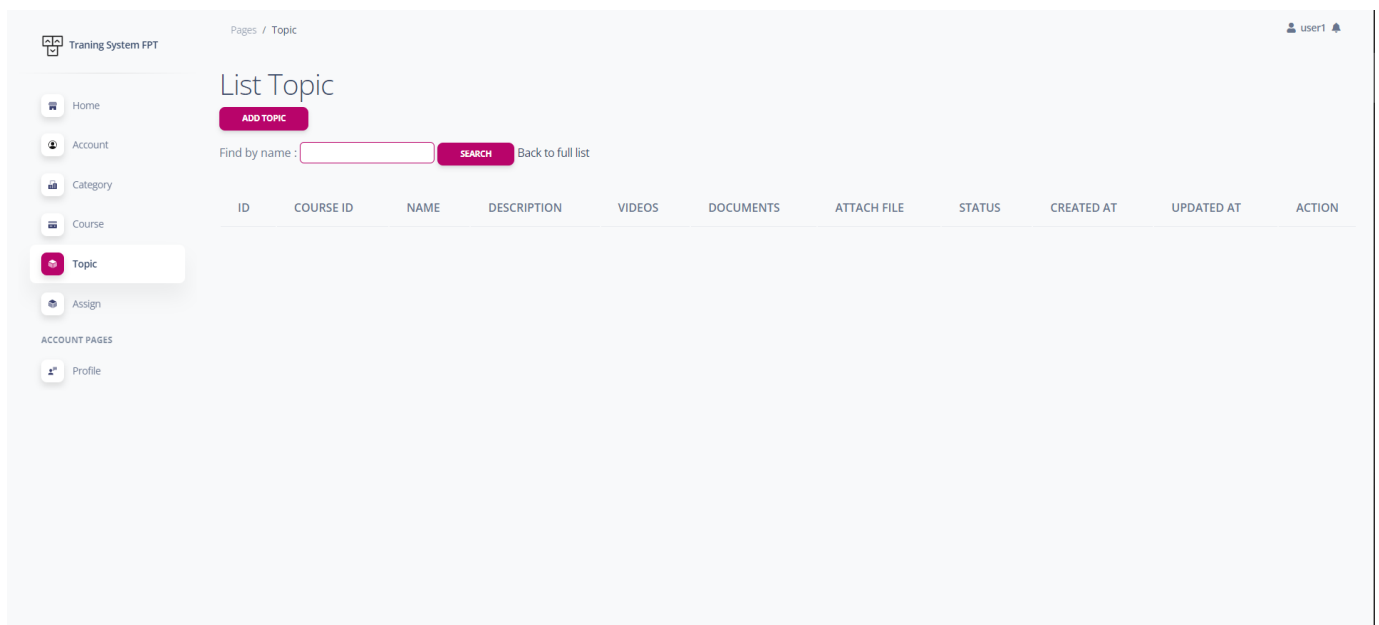
Videos:

Documents:

Attach File:

Status:

Figure 28: Update topic



Training System FPT

Pages / Topic

user1

Home

Account

Category

Course

Topic

Assign

ACCOUNT PAGES

Profile

List Topic

Find by name: [Back to full list](#)

ID	COURSE ID	NAME	DESCRIPTION	VIDEOS	DOCUMENTS	ATTACH FILE	STATUS	CREATED AT	UPDATED AT	ACTION

Figure 29: Delete topic

- Assign trainee to course

Similar to topic manage, assign trainee to course also has full CRUD. Training staff can create new assignments, select trainees and courses from the list. Edit and delete when a trainee has been assigned to an available course.

Traning System FPT

Pages / Assign

user1

List Trainee assign to Course

[ADD ASSIGN TRAINEE TO COURSE](#)

Find by name : [SEARCH](#) [Back to full list](#)

TRAINEE	COURSE	STATUS	CREATED AT	UPDATED AT	ACTION
---------	--------	--------	------------	------------	--------

Figure 30: Trainee assign to course manager

Traning System FPT

Pages / Assign

user1

Add trainee to course

Trainee:

Course:

status:

[SAVE](#) [BACK TO LIST](#)

Figure 31: Add new assign trainee

Traning System FPT

Pages / Assign

user1

List Trainee assign to Course

[ADD ASSIGN TRAINEE TO COURSE](#)

Find by name : [SEARCH](#) [Back to full list](#)

Add Successfully

TRAINEE	COURSE	STATUS	CREATED AT	UPDATED AT	ACTION
trainee1	course1	Active	16/12/2023 8:48:13 PM		EDIT DELETE

Figure 32: Add new assign successful

Traning System FPT

Pages / Assign

user1

Edit trainee to course

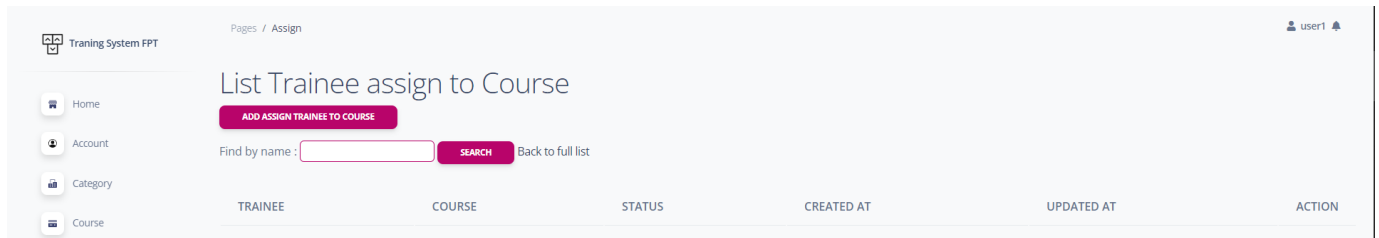
Trainee:

Trainee:

status:

[SAVE](#) [BACK TO LIST](#)

Figure 33: Edit trainee to course



Training System FPT

Pages / Assign

user1

List Trainee assign to Course

[ADD ASSIGN TRAINEE TO COURSE](#)

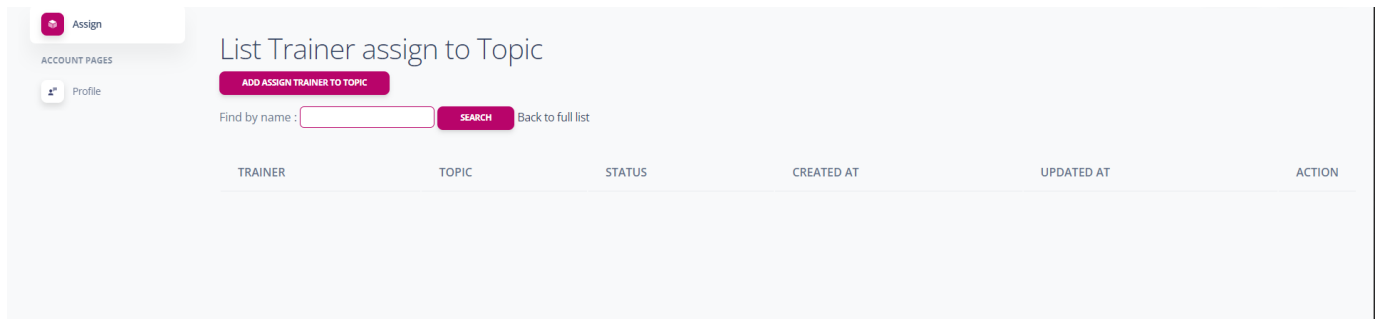
Find by name : [SEARCH](#) [Back to full list](#)

TRAINEE	COURSE	STATUS	CREATED AT	UPDATED AT	ACTION
---------	--------	--------	------------	------------	--------

Figure 34: Delete assign trainee to course

- Assign trainer to topic

Similar to assign trainee to course manage, assign trainer to topic also has full CRUD. Training staff can create new assign, select trainers and topics from the list. Edit and delete when the trainer has assigned to an existing topic.



Assign

ACCOUNT PAGES

[Profile](#)

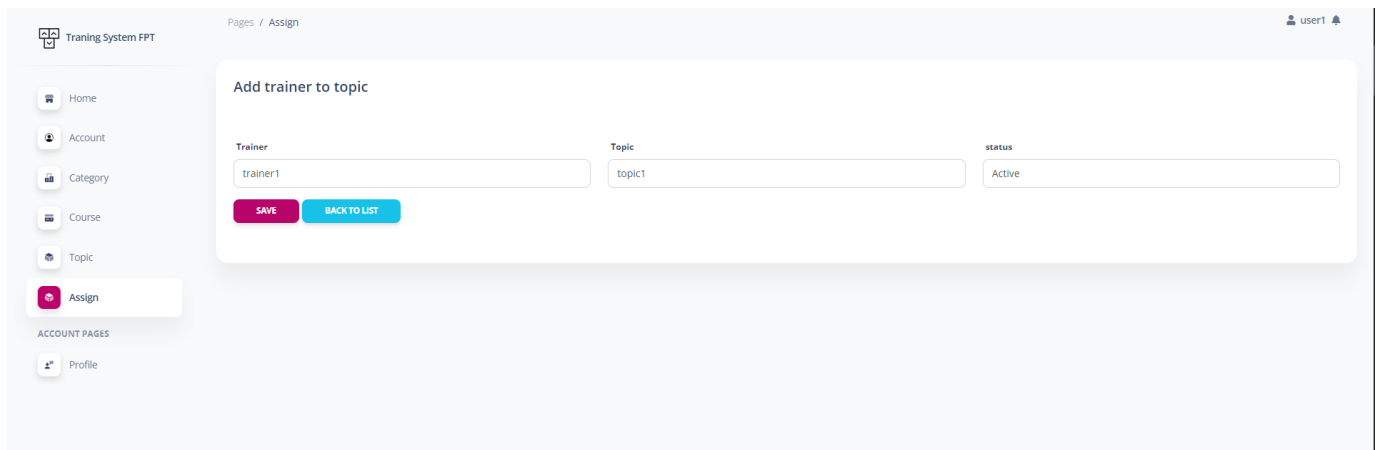
List Trainer assign to Topic

[ADD ASSIGN TRAINER TO TOPIC](#)

Find by name : [SEARCH](#) [Back to full list](#)

TRAINER	TOPIC	STATUS	CREATED AT	UPDATED AT	ACTION
---------	-------	--------	------------	------------	--------

Figure 35: Assign trainer to topic manager



Training System FPT

Pages / Assign

user1

Add trainer to topic

Trainer

Topic

Status

[SAVE](#) [BACK TO LIST](#)

ACCOUNT PAGES

[Profile](#)

Figure 36: Create new assign trainer to topic

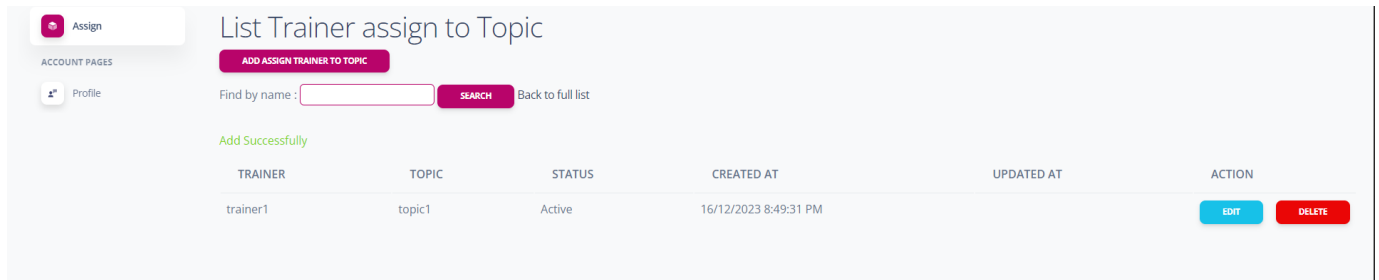


Figure 37: Create new assign trainer to topic successful

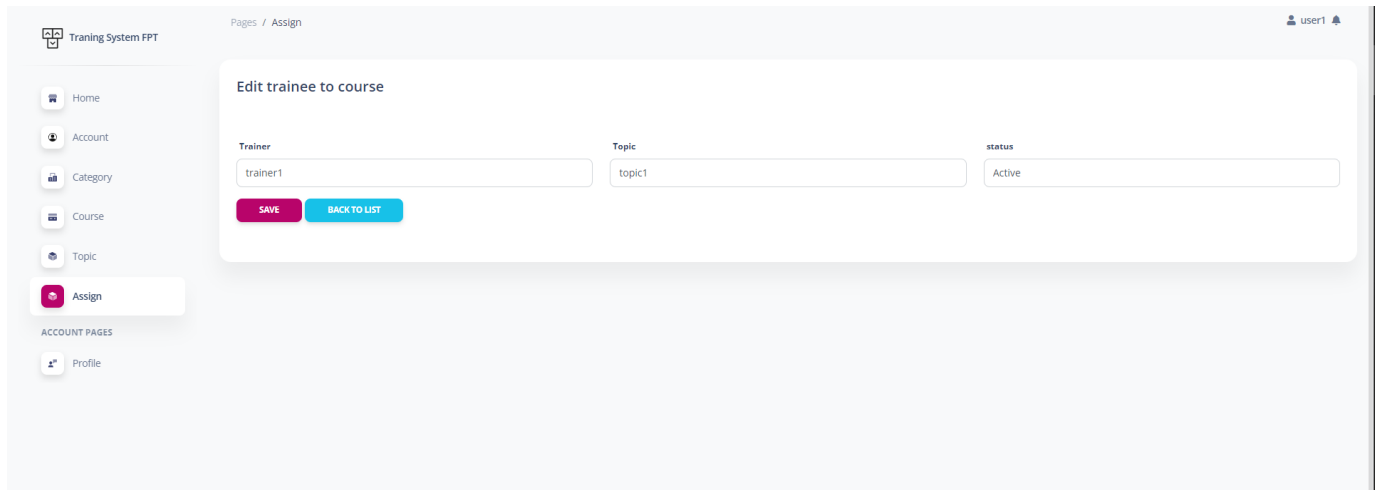


Figure 38: Edit assign trainer to topic

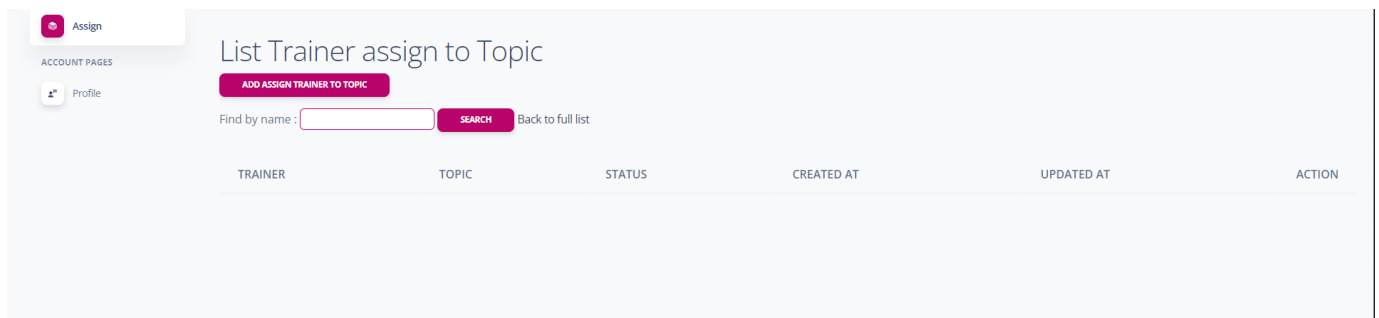


Figure 39: Delete assign trainer to topic

3. Trainer

When the trainer logs into the system. The website will redirect to Home to display all categories. When users click on the details of a category, the website will display a list of courses belonging to that category. When users click on the details of a course, the website will display a list of topics belonging to that course. When users click on the details of a topic, the website will display the content of the topic.

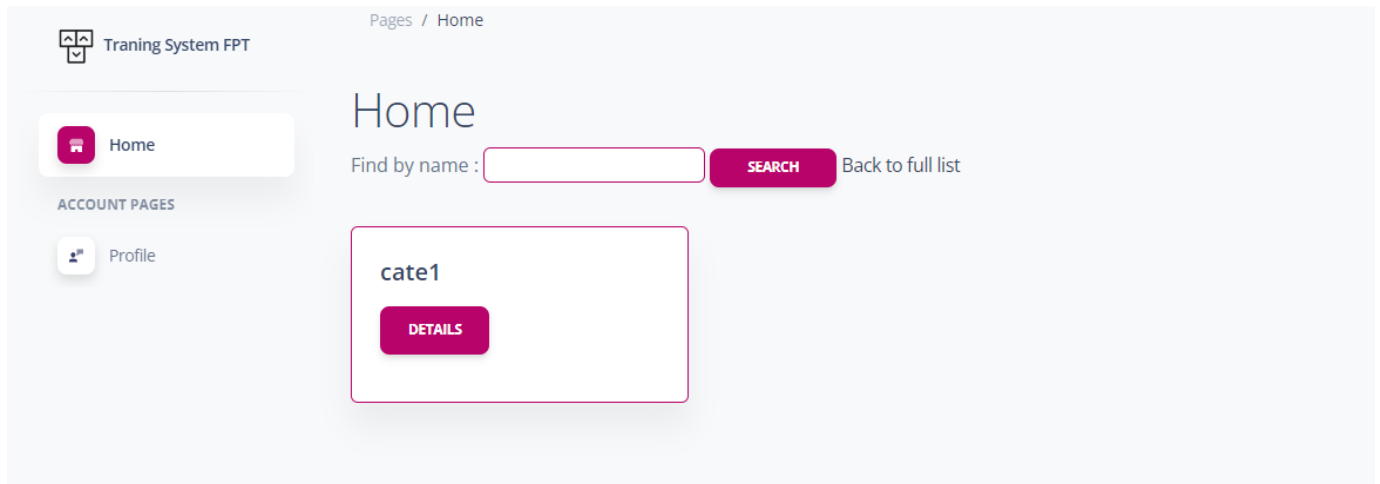


Figure 40: Home

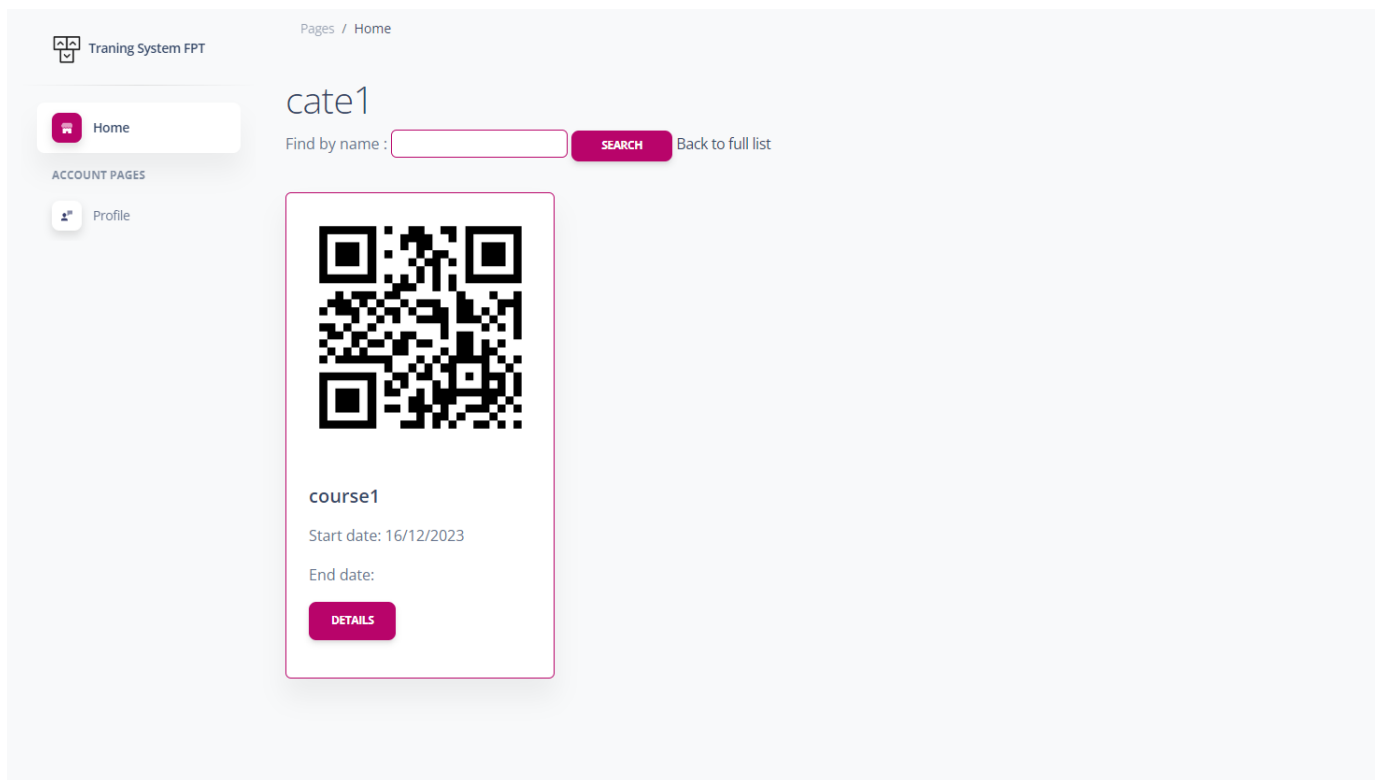


Figure 41: Home course

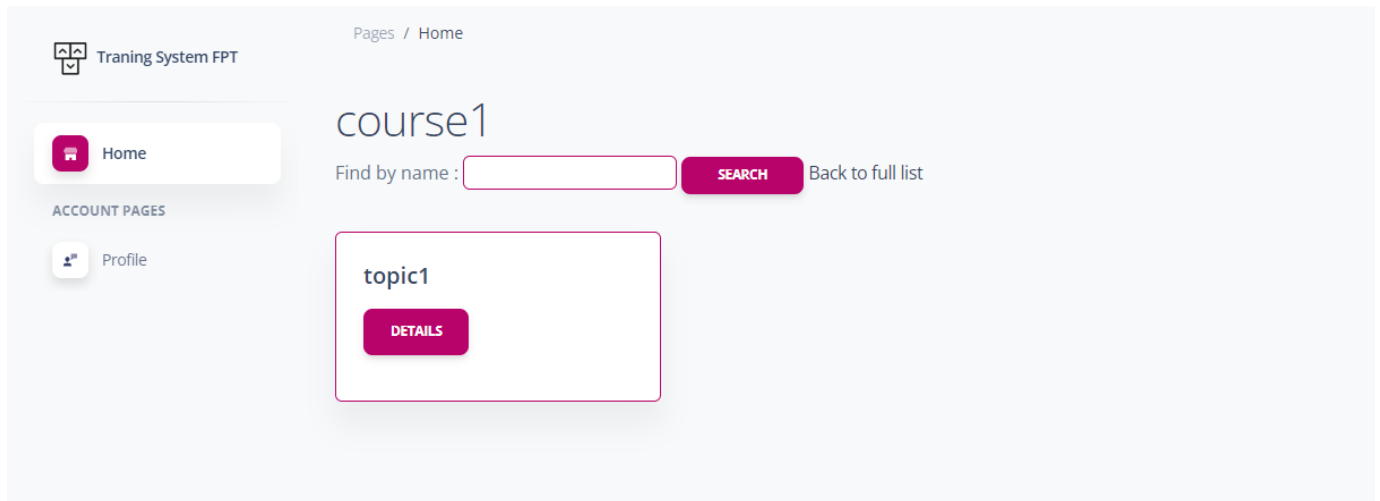


Figure 42: Home topic

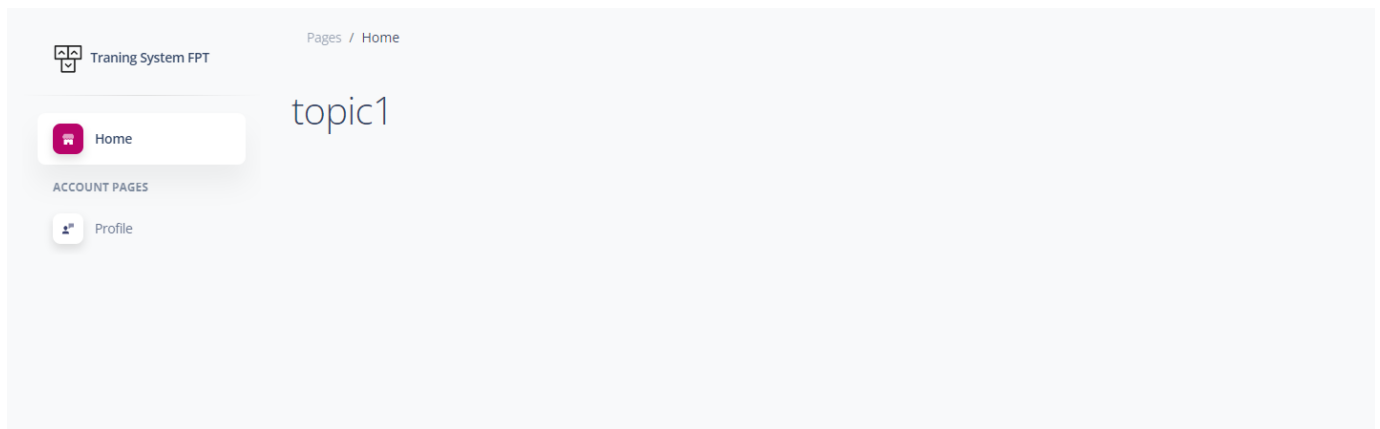


Figure 43: Topic detail

IV. Review the performance of my business application (P6).

1. Testing

ID	Test case name	Description	Test data	Expected	Actual	Remarks
TC1	Login	Login successful	Username: admin, Password: 1	Login successful	Login successful	Pass
TC2	Login	Login failed	Username: admin, Password: 2	Login failed	Login failed	Pass
TC3	Account manager	Display list account		Display all data in database	Display all data in database	Pass

TC4	Account manager	Add account	Role: admin, extra_code: test, username: test, password: 1, email: test@test, Phone: 123, gender: male, Fullname: test	Add successful	Add successful	Pass
TC5	Account manager	Edit account	Role: training staff, extra_code: test2, username: test, password: 1, email: test@test, Phone: 123, gender: male, Fullname: test	Edit successful	Edit successful	Pass
TC6	Account manager	Delete account	Id = 10	Delete successful	Delete successful	Pass
TC7	Account manager	Search account	Admin	Display data of user has name: Admin	Display data of user has name: Admin	Pass
TC8	Category manager	Add category	Name: category1, Status: active	Add successful	Add successful	Pass
TC9	Category manager	Edit category	Name: category2, Status: active	Edit successful	Edit successful	Pass
TC10	Category manager	Delete category	Id = 2	Delete successful	Delete successful	Pass
TC11	Course manager	Add course	Name: course1, Category: cate23,	Add successful	Add successful	Pass

			startDate: 10/10/2023, Status: active			
TC12	Course manager	Edit course	Name: course2, Category: cate3, startDate: 10/10/2023, Status: active	Edit successful	Edit successful	Pass
TC13	Course manager	Delete course	Id = 2	Delete successful	Delete successful	Pass
TC14	Topic manager	Add topic	Name: topic1, Course: course2, Document: document.doc Status: active	Add successful	Add successful	Pass
TC15	Topic manager	Edit topic	Name: topic2, Course: course2, Document: document2.doc Status: active	Edit successful	Edit successful	Pass
TC16	Topic manager	Delete topic	Id = 2	Delete successful	Delete successful	Pass
TC17	Assign trainer manager	Add assign trainer	Trainer: 1, Course: 1, Status: active	Add successful	Add successful	Pass
TC18	Assign trainer manager	Edit assign trainer	Trainer: 2, Course: 1, Status: active	Edit successful	Edit successful	Pass

TC19	Assign trainer manager	Delete assign trainer	Id = 2	Delete successful	Delete successful	Pass
TC20	Assign trainee manager	Add assign trainee	Trainee: 4, Topic: 5, Status: active	Add successful	Add successful	Pass
TC21	Assign trainee manager	Edit assign trainee	Trainee: 6, Topic: 5, Status: active	Edit successful	Edit successful	Pass
TC22	Assign trainee manager	Delete assign trainee	Id = 2	Delete successful	Delete successful	Pass
TC23	Home	List category		Data of list category	Data of list category	Pass
TC24	Home	List course		Data of list course	Data of list course	Pass
TC25	Home	List topic		Data of list topic	Data of list topic	Pass
TC26	Logged in	User has session		Still login until logout	Logged out after few minute	Fail
TC27	Logout	User has log out		Logout successful	Logout successful	Pass
						96.3% (26/27)

Figure 44: Testing

2. Analyse and critical evaluate the application

In evaluating the FPT Training System web application, I've identified positive aspects and areas for improvement. The roles-based system for admin, training staff, and trainers enhances user management

and login decentralization, ensuring secure and role-specific experiences. The categorized homepage facilitates efficient navigation, but a more visually engaging design could enhance user appeal. While the management modules provide comprehensive tools, a more intuitive interface is needed. The ability to assign trainees to courses and trainers to topics streamlines the training process. To ensure sustained success, scalability and a robust feedback mechanism are crucial for accommodating growth and continuous improvement. Despite valuable functionalities, refining visual appeal, interface intuitiveness, and scalability will enhance the overall user experience and adaptability.

V. Conclusion

In summary, the assignment provided valuable insights into my application's user experience through a detailed peer review. Reflecting on the feedback identified areas for improvement, enhancing the application's overall quality. The development process showcased meticulous steps, rigorous testing, and adherence to best practices, resulting in a robust application meeting functional requirements. The critical evaluation highlighted strengths and areas for refinement, serving as a roadmap for future enhancements. This assignment emphasized the importance of a user-centric approach and continuous improvement in software development, offering a comprehensive exploration of the iterative nature of application development.

VI. Reference

- My github code: <https://github.com/tiendat9/ASMAD>
- GoogleForms: <https://docs.google.com/forms/u/0/>
- Bootstrap: <https://getbootstrap.com/>