

ASSIGNMENT 2 FRONT SHEET

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Unit number and title	Unit 30: Application Development		
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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	Do

Grading grid

P4	P5	P6	M3	M4	M5	D2	D3

☐ **Summative Feedback:**

☐ **Resubmission Feedback:**

Grade:

Assessor Signature:

Date:

Lecturer Signature:

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A. Introduction

In the journey of developing a robust business application, our team embarked on a meticulous process that entailed not just conceptualization and design but also comprehensive evaluation and iterative improvements. This report encapsulates our methodical approach, documenting the evolution from initial design concepts presented earlier to the development phase, encapsulating the utilization of chosen technologies and methodologies. Throughout this process, we address feedback from our peers through a formal questionnaire, demonstrating reflective adaptation in response to insights. Additionally, our report critically reviews the application's performance against specifications, delving into factors influencing its efficacy. The conclusion presents a reflective analysis, acknowledging strengths, weaknesses, and opportunities for future enhancements, culminating in a presentation and a fully functional application for demonstration and evaluation.

B. Create a formal questionnaire that effectively reviews your business application, problem definition statement, proposed solution and development strategy. Use this questionnaire as part of a peer-review and document any feedback given (P4)

I. Survey - <https://forms.gle/wVSuU3bWTDiXpHHn6>

How clearly does the problem definition statement articulate the core challenges or needs addressed by the business application? (1 - Disappointment, 5 - Excellence)

 Copy

20 responses

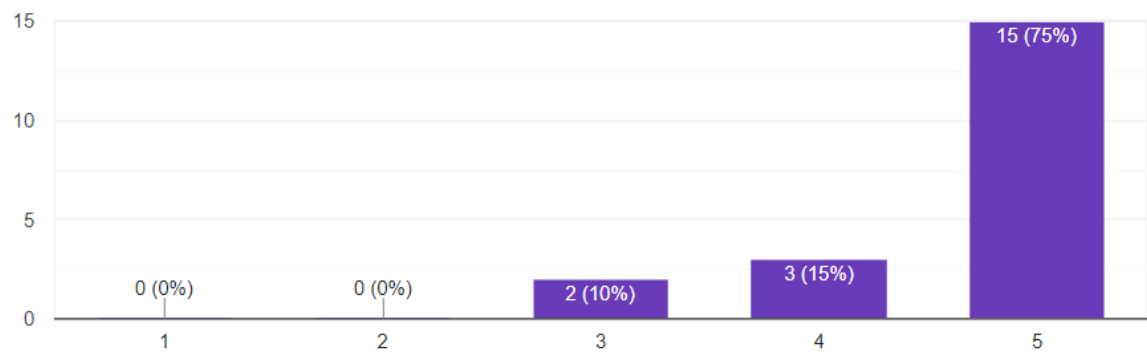


Figure 1: Survey 1.

To what extent does the proposed solution address the identified problem statement effectively? (1 - Inadequate, 5 - Highly Effective)

 Copy

20 responses

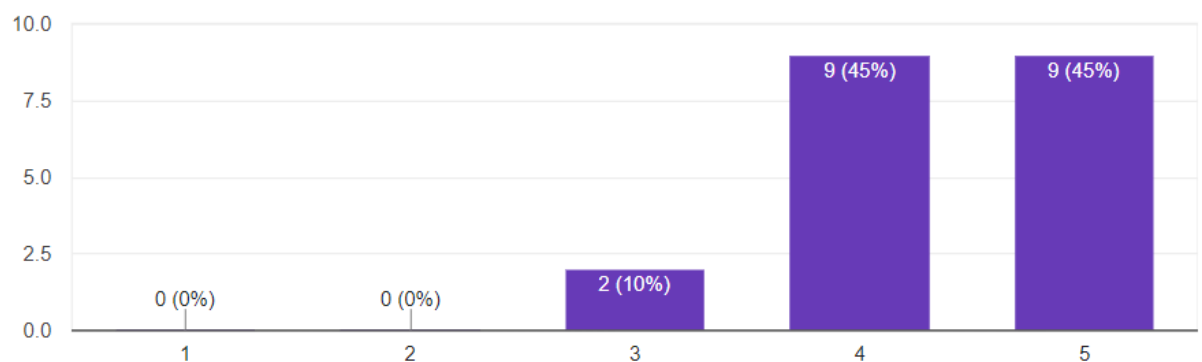


Figure 2: Survey 2.

Please rate the comprehensiveness and clarity of the development strategy outlined for the business application. (1 - Unclear, 5 - Highly Clear and Comprehensive)

 Copy

20 responses

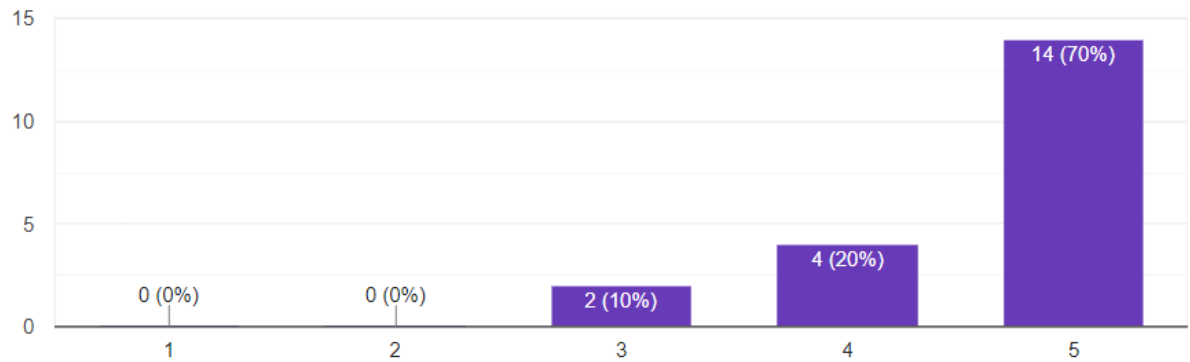


Figure 3: Survey 3.

How well does the design of the application align with its intended functionality and user experience? (1 - Poor Alignment, 5 - Perfect Alignment)

 Copy

20 responses

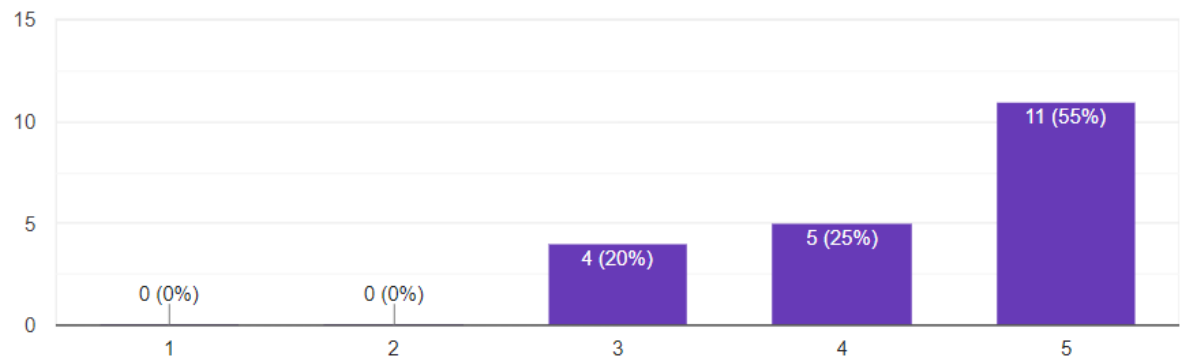


Figure 4: Survey 4.

On a scale of 1 to 5, how intuitive and user-friendly is the interface of the application?
(1 - Very Difficult to Use, 5 - Extremely Intuitive)

 Copy

20 responses

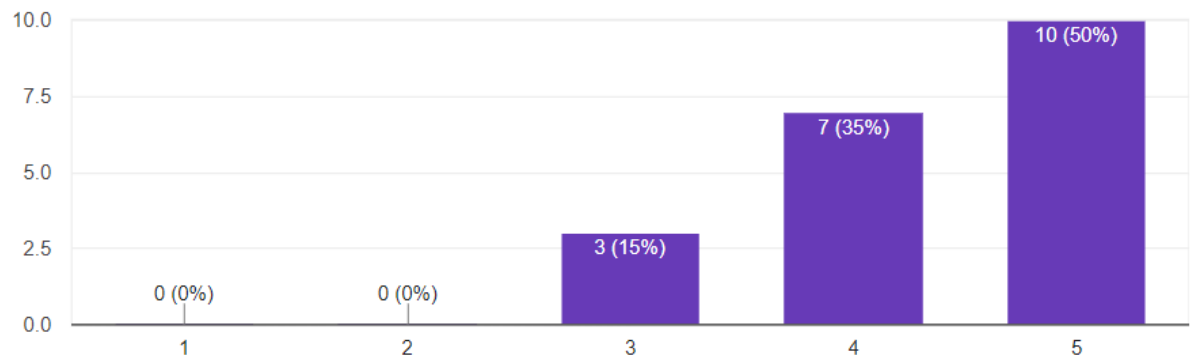


Figure 5: Survey 5.

Considering the technologies employed, how adequate and suitable are they in meeting the application's objectives? (1 - Inadequate, 5 - Perfectly Suitable)

 Copy

20 responses

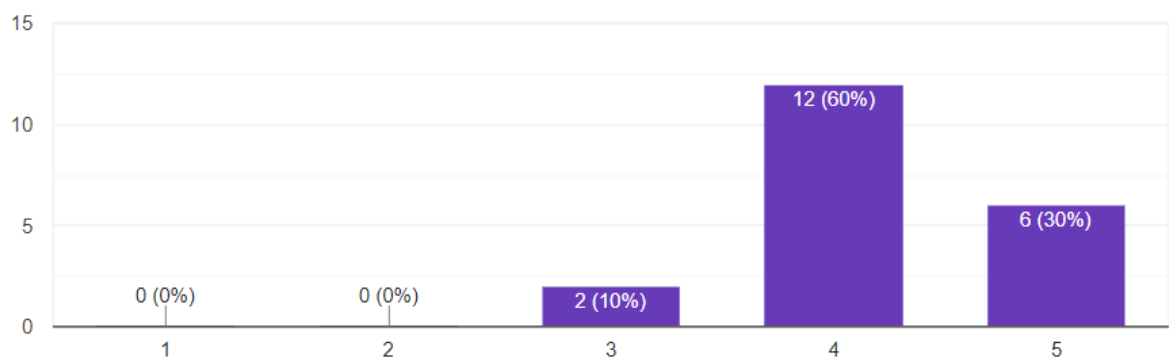


Figure 6: Survey 6.

Were the developmental stages adequately tested and validated? (1 - Insufficient Testing, 5 - Rigorous Testing and Validation)

 Copy

20 responses

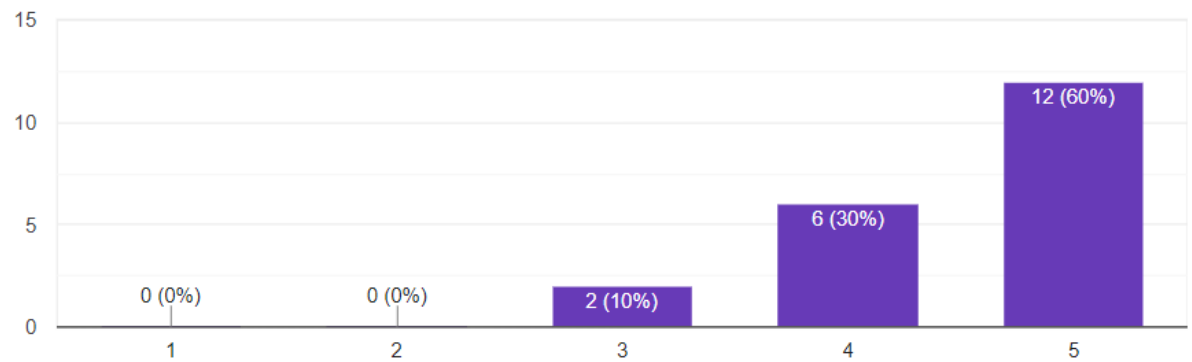


Figure 7: Survey 7.

How effectively does the application address potential risks and vulnerabilities? (1 - Poorly Addressed, 5 - Thoroughly Addressed)

 Copy

20 responses

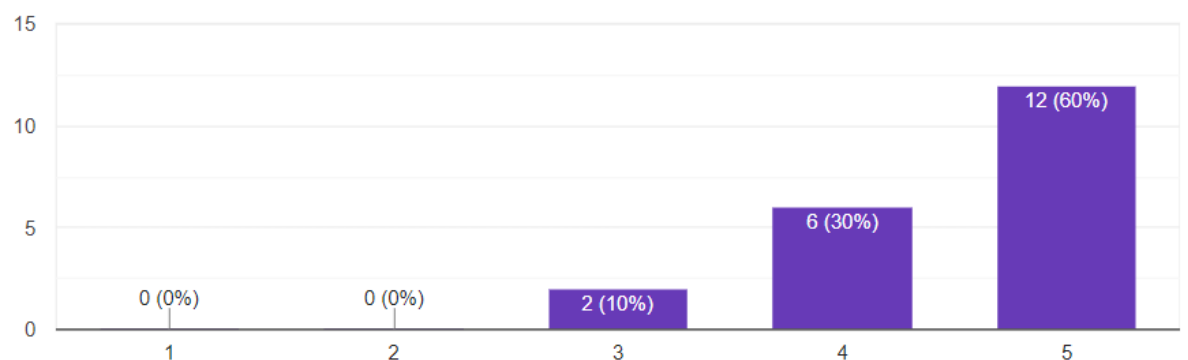


Figure 8: Survey 8.

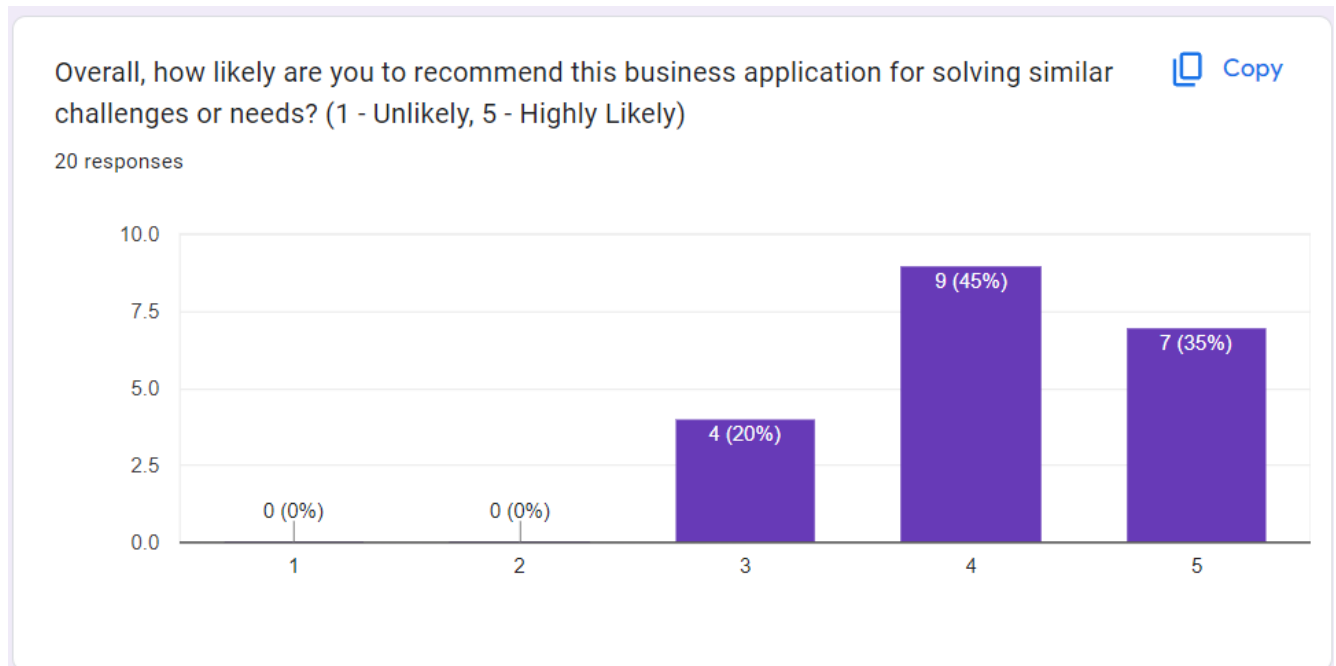


Figure 9: Survey 9.

II. Feedback Review

- Based on the survey I conducted using the 9 comprehensive questions outlined earlier, the overall feedback from users indicates a moderate to high satisfaction level, with most responses centering around level 3 to level 5 ratings. These ratings, with level 3 being the least and level 5 signifying the highest, reflect a generally positive sentiment regarding the business application's various facets.
- I am pleased to note that the problem definition statement garnered moderate to high ratings, hovering primarily around level 4, indicating a generally clear articulation of the core challenges addressed by the application. This signifies a positive reception regarding the application's alignment with identified needs.
- Regarding the proposed solution's effectiveness in addressing the identified problem, the feedback trended towards level 4, suggesting an average to highly effective response. While the application seems to offer solutions that resonate well, there may be room for further enhancement to reach an optimal solution level.

- Users expressed satisfaction, mostly around level 4, with the clarity and comprehensiveness of the development strategy, indicating a well-defined and well-communicated plan. However, there might be potential areas for improvement to elevate it to a more exemplary level.
- The alignment of the application's design with its functionality and user experience received predominantly positive feedback, hovering around level 4, showcasing a good alignment, though some aspects might require refinement for optimal usability and experience.
- While users found the interface moderately intuitive and user-friendly (rated around level 3 to 4), there's potential for further enhancements to make it more user-centric and easily navigable.
- Overall, the survey responses present a generally positive outlook on the business application, acknowledging its strengths while also highlighting areas for improvement. The ratings, clustered between levels 3 and 5, offer valuable insights that will guide me in refining and optimizing the application for a more robust and user-centric solution.

C. Create a formal questionnaire that effectively reviews your business application, problem definition statement, proposed solution and development strategy. Use this questionnaire as part of a peer-review and document any feedback given (P5)

I. Source (URL: https://github.com/ThanhDo03/Web_AD_ASM2.git)

II. Interface

1. Login Page



Username

admin

Password

LOGIN

Figure 10: Login Admin.

Pages / Admin

admin

Welcome Traning System BTEC FPT - Admin

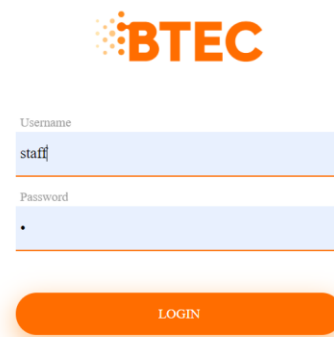
ADD USER

SEARCH Back to full list

ID	ROLE	EXTRA CODE	USERNAME	PASSWORD	EMAIL	PHONE	ADDRESS	GENDER	BIRTHDAY	AVATAR	LAST LOG
2	1	admin	admin	admin	admin@gmail.com	0344556315	add1	1	01/01/2003 00:00:00		
4	2	staff	staff	1	staff@gmail.com	0344555555	add2	1	07/24/2003 00:00:00		
5	3	Trainer	trainer	2	thanhdofun@gmail.com	0344556315	Ha Noi	0	07/24/2005 00:00:00		

Figure 11: Login Success.

- We will log in to the admin, training staff and trainne accounts in this login interface. When logged in successfully, you will be redirected to the "Account" management page.



Username

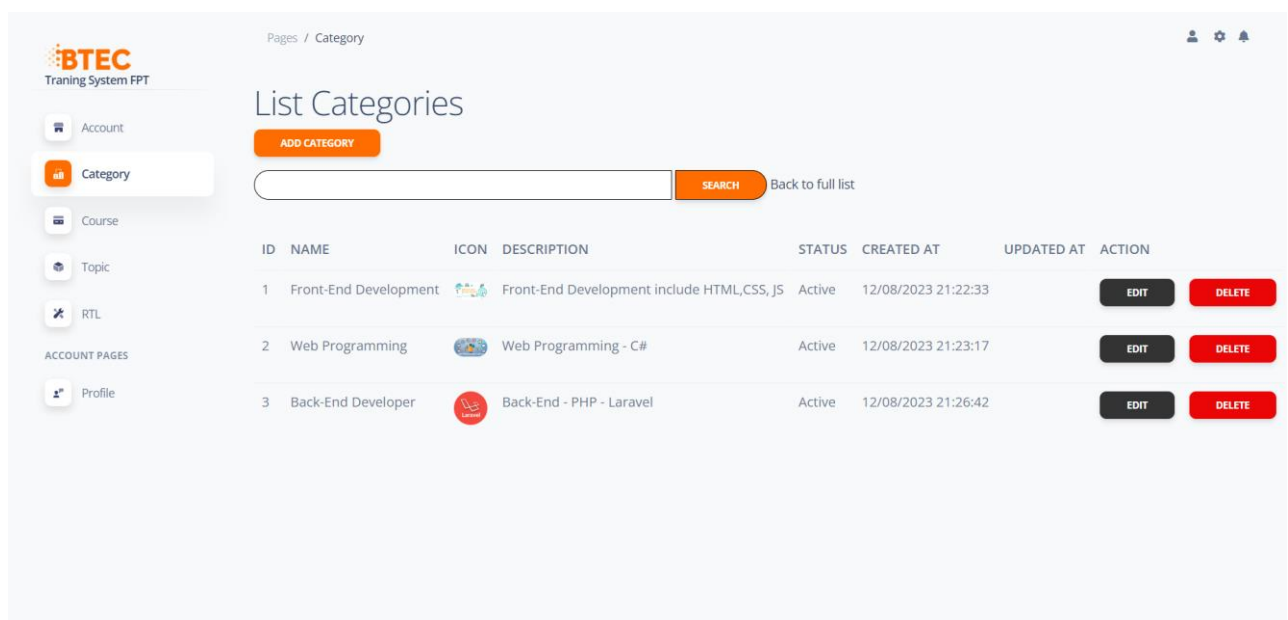
staff

Password

•

LOGIN

Figure 12: Login Training Staff.



Pages / Category

List Categories

ADD CATEGORY

SEARCH Back to full list





ID	NAME	ICON	DESCRIPTION	STATUS	CREATED AT	UPDATED AT	ACTION
1	Front-End Development		Front-End Development include HTML,CSS, JS	Active	12/08/2023 21:22:33		EDIT DELETE
2	Web Programming		Web Programming - C#	Active	12/08/2023 21:23:17		EDIT DELETE
3	Back-End Developer		Back-End - PHP - Laravel	Active	12/08/2023 21:26:42		EDIT DELETE

Figure 13: Login Success.

- Log in to your account with the login name staff and when the information matches, you will be redirected to the Menu page including Account, Category, Course, Topic,...

2. Training Staff Functionalities



Traning System FPT

- Account
- Category**
- Course
- Topic
- RTL

ACCOUNT PAGES

- Profile

Pages / Category

List Categories

[ADD CATEGORY](#)

[SEARCH](#)
[Back to full list](#)





ID	NAME	ICON	DESCRIPTION	STATUS	CREATED AT	UPDATED AT	ACTION
1	Front-End Development		Front-End Development include HTML,CSS, JS	Active	12/08/2023 21:22:33		EDIT DELETE
2	Web Programming		Web Programming - C#	Active	12/08/2023 21:23:17		EDIT DELETE
3	Back-End Developer		Back-End - PHP - Laravel	Active	12/08/2023 21:26:42		EDIT DELETE

Figure 14: List Categories Page.



Traning System FPT

- Account
- Category**
- Course
- Topic
- RTL

ACCOUNT PAGES

- Profile

Pages / Category

Add New Category

name

description


status

Photo

[Choose File](#)
No file chosen

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

Figure 15: Add New Category.



Traning System FPT

- Account
- Category**
- Course
- Topic
- RTL

ACCOUNT PAGES

- Profile

Pages / Category

List Categories

[ADD CATEGORY](#)

[SEARCH](#)
[Back to full list](#)

Add Successfully






ID	NAME	ICON	DESCRIPTION	STATUS	CREATED AT	UPDATED AT	ACTION
1	Front-End Development		Front-End Development include HTML,CSS, JS	Active	12/08/2023 21:22:33		EDIT DELETE
2	Web Programming		Web Programming - C#	Active	12/08/2023 21:23:17		EDIT DELETE
3	Back-End Developer		Back-End - PHP - Laravel	Active	12/08/2023 21:26:42		EDIT DELETE
4	Web Programming		Project	Active	12/09/2023 19:58:51		EDIT DELETE

Figure 16: Add Category Success.



Traning System FPT

- Account
- Category**
- Course
- Topic
- RTL

ACCOUNT PAGES

- Profile

Pages / Category

List Categories

[ADD CATEGORY](#)

[SEARCH](#)
[Back to full list](#)

Update Successfully





ID	NAME	ICON	DESCRIPTION	STATUS	CREATED AT	UPDATED AT	ACTION
1	Front-End Development		Front-End Development include HTML,CSS, JS Node	Active	12/08/2023 21:22:33		EDIT DELETE
2	Web Programming		Web Programming - C#	Active	12/08/2023 21:23:17		EDIT DELETE
3	Back-End Developer		Back-End - PHP - Laravel	Active	12/08/2023 21:26:42		EDIT DELETE
4	Web Programming		Project	Active	12/09/2023 19:58:51		EDIT DELETE

Figure 17: Update Category Success.

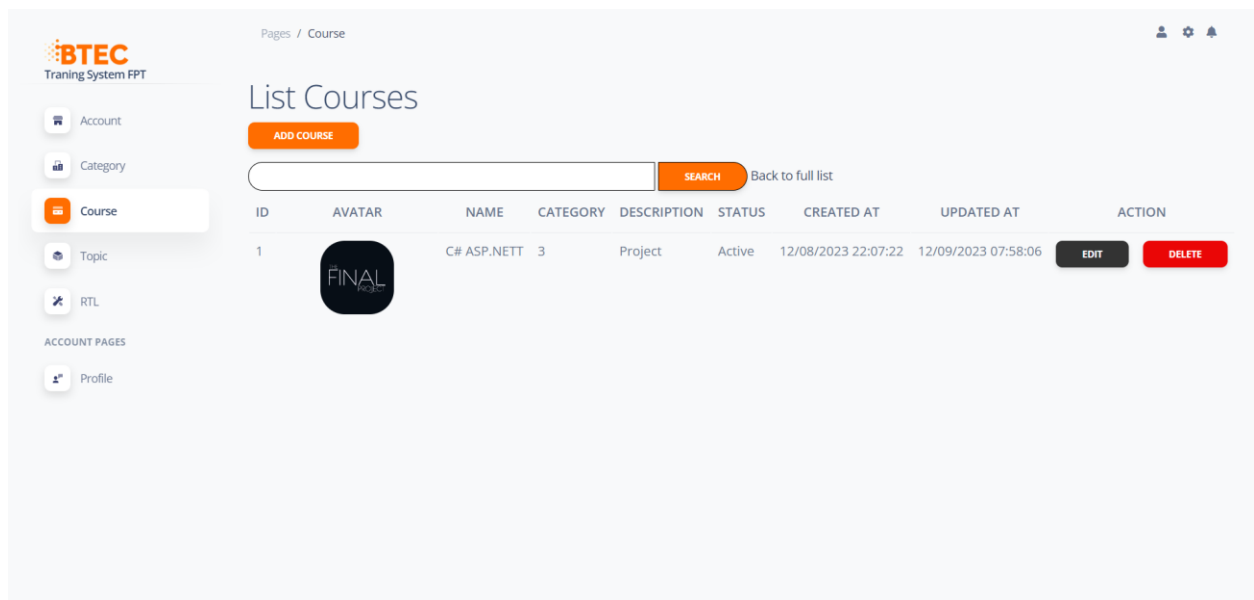


Figure 18: Course Page.

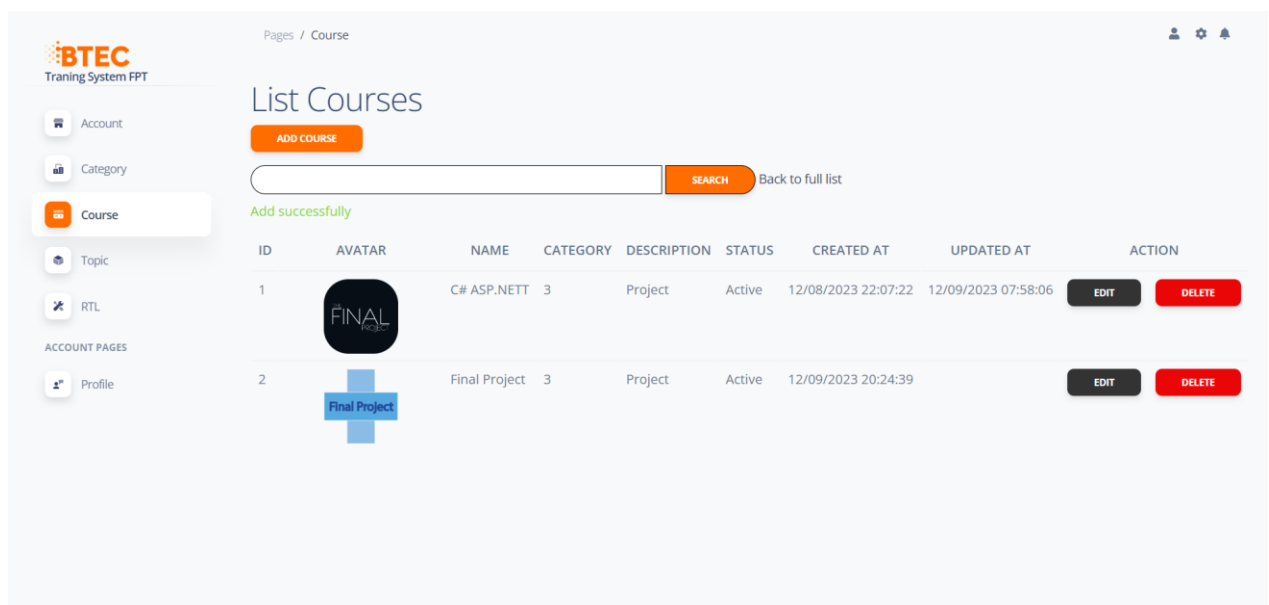



Figure 19: Add New Course Success.


Traning System FPT

Account

Category

Course

Topic

RTL

ACCOUNT PAGES

Profile

Pages / Course

ADD COURSE

SEARCH

Back to full list

Update successfully




ID	AVATAR	NAME	CATEGORY	DESCRIPTION	STATUS	CREATED AT	UPDATED AT	ACTION	
1		C# ASP.NET	3	Project	Active	12/08/2023 22:07:22	12/09/2023 20:25:49	EDIT	DELETE
2		Final Project	3	Project	Active	12/09/2023 20:24:39		EDIT	DELETE

Figure 20: Update A Course Success.


Traning System FPT

Account

Category

Course

Topic

RTL

ACCOUNT PAGES

Profile

Pages / Course

ADD COURSE

SEARCH

Back to full list


ID	AVATAR	NAME	CATEGORY	DESCRIPTION	STATUS	CREATED AT	UPDATED AT	ACTION	
1		C# ASP.NET	3	Project	Active	12/08/2023 22:07:22	12/09/2023 20:25:49	EDIT	DELETE

Figure 21: Research Course.

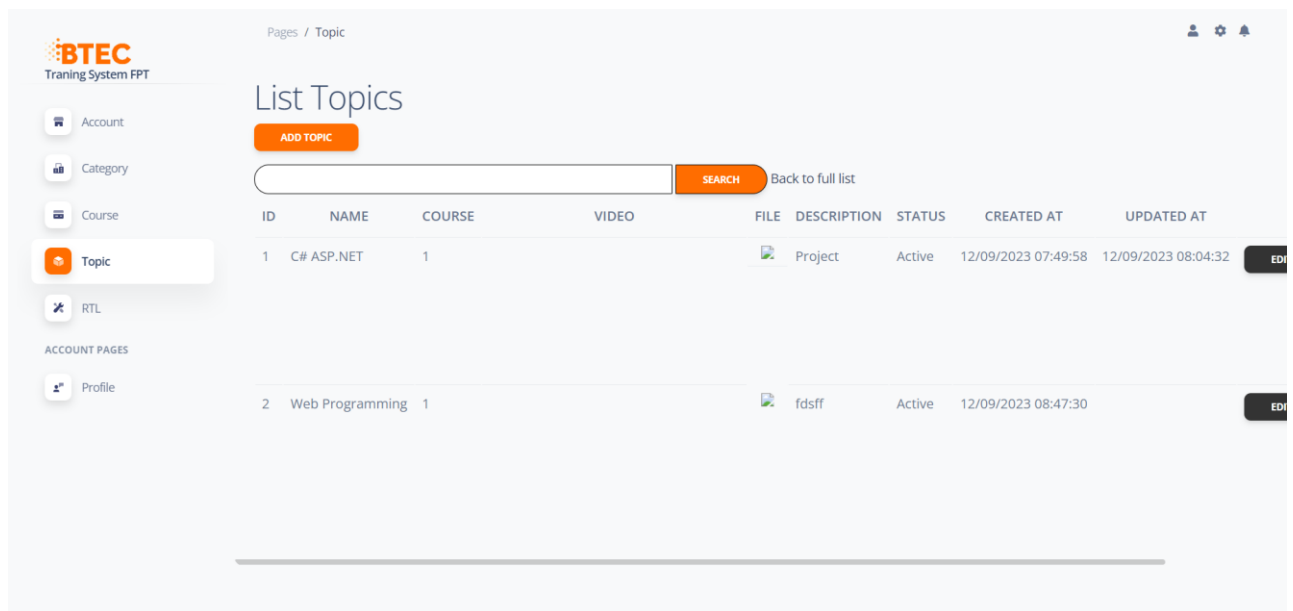


Figure 22: Topic Page.

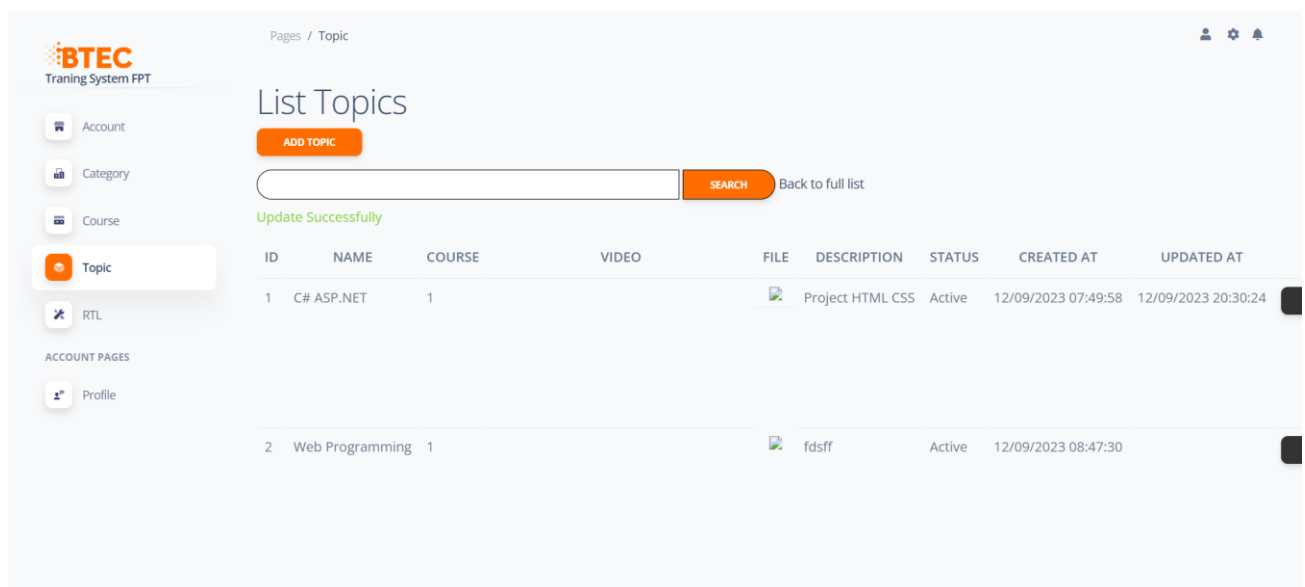


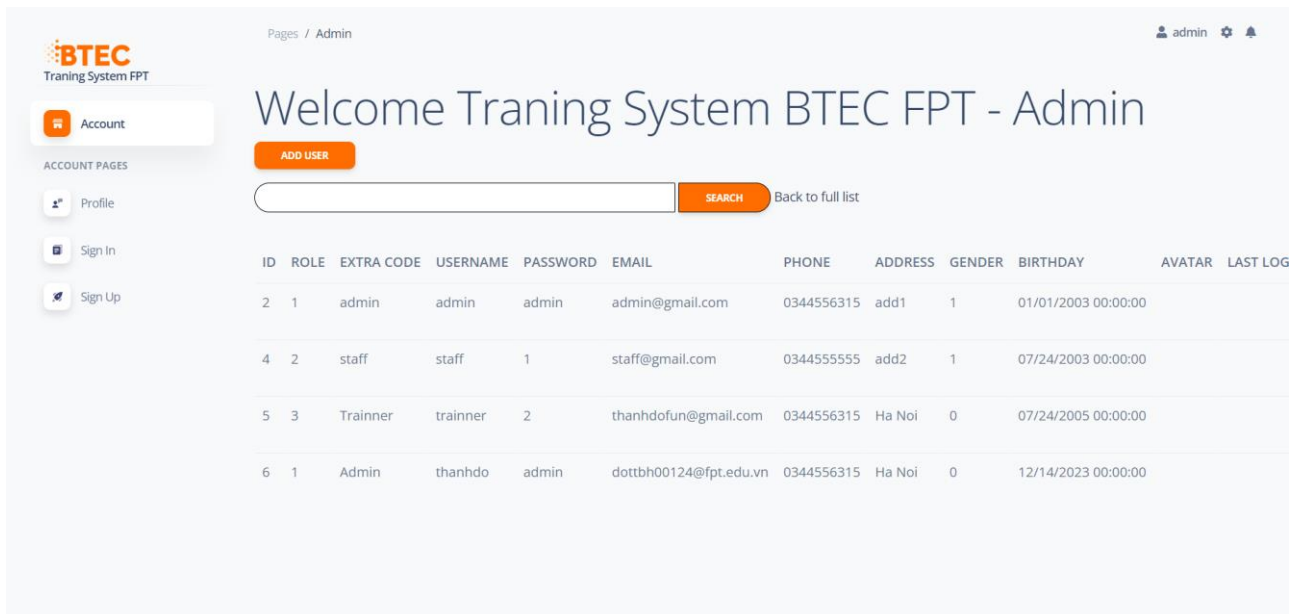
Figure 23: Update Topic Success.

- Upon successful login, I, as a Staff member, possess comprehensive control over the administration of Categories, Courses, and Topics within the system. My access empowers me to view and manage their respective properties effortlessly. I am equipped with the ability to

not only oversee these elements but also undertake essential actions such as addition, editing, and deletion directly from the categorized lists.

- The functionality grants me the freedom to introduce new Categories, Courses, and Topics, ensuring the system's adaptability to evolving needs. Additionally, I hold the authority to modify existing entries and remove outdated or irrelevant ones, contributing to the maintenance of an organized and relevant database.
- Furthermore, a pivotal feature available to me is the search function, enabling efficient navigation and exploration within these lists. This function serves as a facilitator in swiftly locating specific Categories, Courses, or Topics, streamlining the process of information retrieval and management.
- In essence, the system affords me a robust set of tools and permissions, empowering my role as a Staff member to oversee, create, modify, and curate the Categories, Courses, and Topics seamlessly. This comprehensive control not only ensures the integrity of the database but also fosters an environment conducive to efficient management and optimization of information within the platform.

3. Admin Functionalities



The screenshot displays the 'Admin' page of the 'Traning System BTEC FPT'. The page features a sidebar on the left with navigation links: 'Account', 'Profile', 'Sign In', and 'Sign Up'. The main content area is titled 'Welcome Traning System BTEC FPT - Admin' and includes an 'ADD USER' button and a search bar. Below the search bar is a table listing users with columns for ID, ROLE, EXTRA CODE, USERNAME, PASSWORD, EMAIL, PHONE, ADDRESS, GENDER, BIRTHDAY, AVATAR, and LAST LOG.

ID	ROLE	EXTRA CODE	USERNAME	PASSWORD	EMAIL	PHONE	ADDRESS	GENDER	BIRTHDAY	AVATAR	LAST LOG
2	1	admin	admin	admin	admin@gmail.com	0344556315	add1	1	01/01/2003 00:00:00		
4	2	staff	staff	1	staff@gmail.com	0344555555	add2	1	07/24/2003 00:00:00		
5	3	Trainer	trainner	2	thanhdoftun@gmail.com	0344556315	Ha Noi	0	07/24/2005 00:00:00		
6	1	Admin	thanhdo	admin	dottbh00124@fpt.edu.vn	0344556315	Ha Noi	0	12/14/2023 00:00:00		

Figure 24: Admin Page.

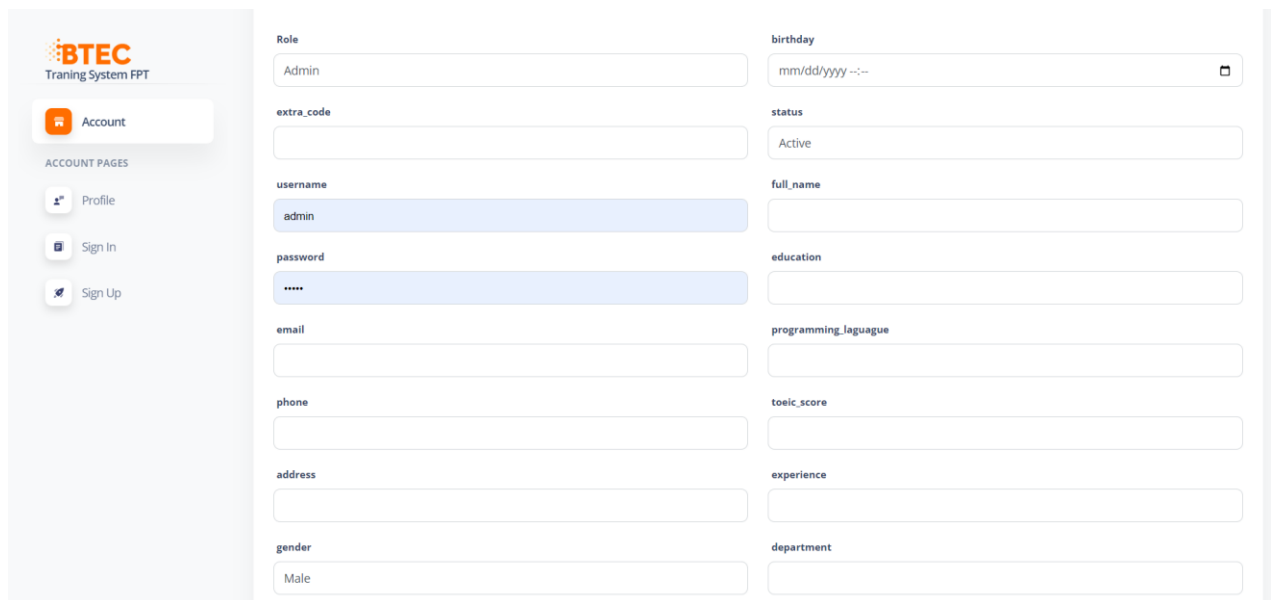
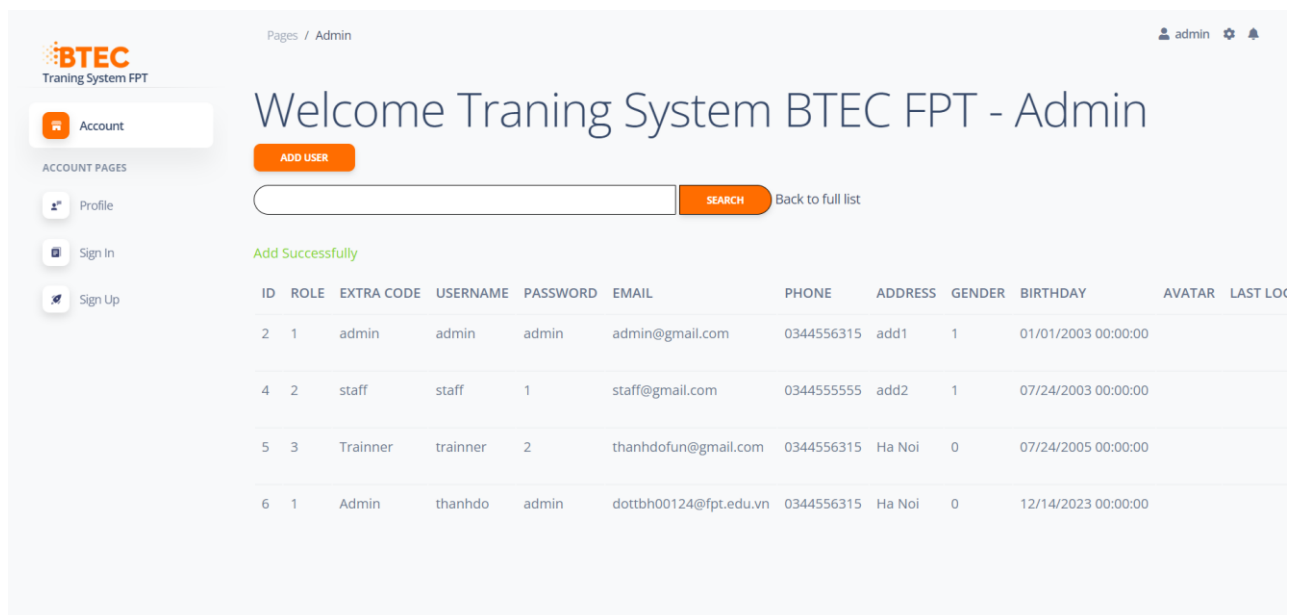


Figure 25: Add New Staff.



Pages / Admin

admin

Welcome Traning System BTEC FPT - Admin

[ADD USER](#)

[SEARCH](#) [Back to full list](#)

Add Successfully

ID	ROLE	EXTRA CODE	USERNAME	PASSWORD	EMAIL	PHONE	ADDRESS	GENDER	BIRTHDAY	AVATAR	LAST LOG
2	1	admin	admin	admin	admin@gmail.com	0344556315	add1	1	01/01/2003 00:00:00		
4	2	staff	staff	1	staff@gmail.com	0344555555	add2	1	07/24/2003 00:00:00		
5	3	Trainer	trainer	2	thanhdufun@gmail.com	0344556315	Ha Noi	0	07/24/2005 00:00:00		
6	1	Admin	thanhdo	admin	dotbho00124@fpt.edu.vn	0344556315	Ha Noi	0	12/14/2023 00:00:00		

Figure 26: Add Success.

- Admin can add a new account with admin and training staff rights. Admin plays the biggest role in the system, managing user account information and staff.

4. Assign trainee to course

Traning System FPT

ACCOUNT PAGES

Profile

Pages / Assign

Add trainee to course

Trainee

trainee

Save

Trainee

1

Back to list

status

Active

Figure 28: Add New Trainee.

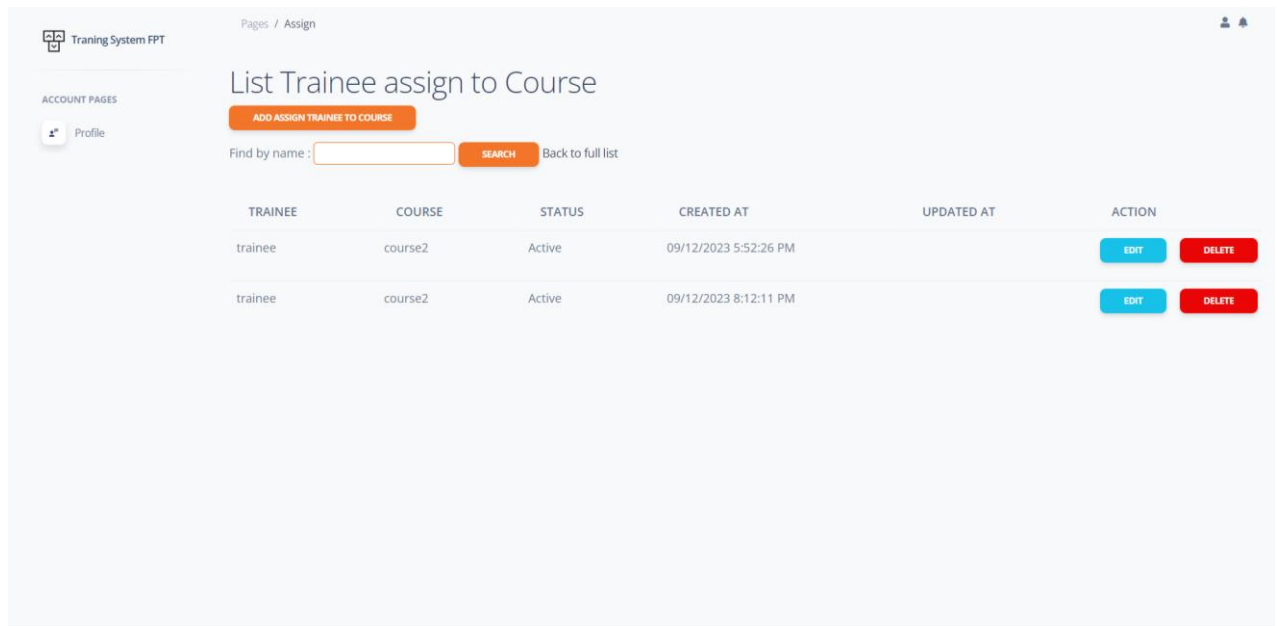


Figure 29: Add New Assign Success.

- The functionality to manage trainee assignments to courses mirrors the comprehensive capabilities seen in topic management. Training staff are endowed with complete CRUD (Create, Read, Update, Delete) control over these assignments. This empowerment allows for the seamless creation of new assignments, offering the flexibility to handpick trainees and courses from curated lists.
- This robust feature set enables the training staff to curate specific assignments by initiating new entries and precisely selecting trainees alongside relevant courses from the available catalog. Furthermore, the system allows for agile modifications and deletions, especially crucial when a trainee needs to be reassigned or when a course assignment requires alteration or removal.
- By offering such dynamic control, the platform facilitates an agile and responsive environment. It empowers training staff to efficiently manage trainee-course assignments, ensuring optimal adaptability and alignment with the evolving needs of the trainees and the training curriculum. This comprehensive control mechanism not only ensures accuracy in assignments but also streamlines the training process for enhanced effectiveness and flexibility.

5. Assign Trainer to Topic.

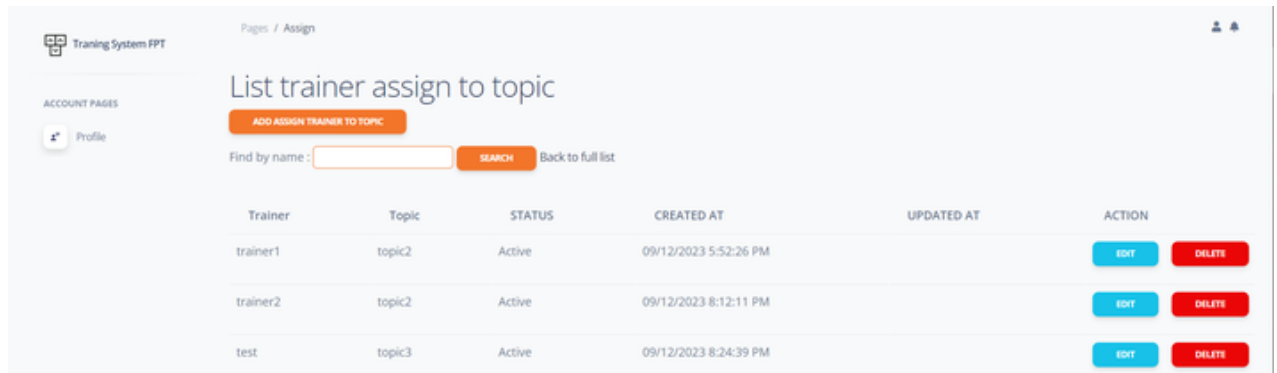


Figure 30: Assign trainer to Topic Manager.

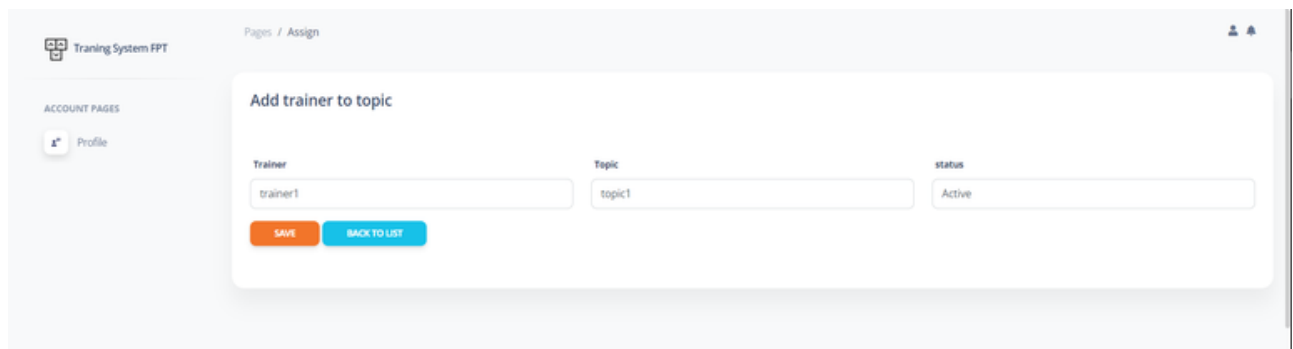


Figure 31: Add New Assign Trainer To Topic.

- In tandem with the trainee-to-course assignment management, the functionality to assign trainers to specific topics is equally comprehensive, affording Training staff an array of capabilities encompassing full CRUD (Create, Read, Update, Delete). This feature enables seamless creation of new assignments, empowering staff to select trainers and topics from the existing lists effortlessly. The system facilitates the editing and deletion processes, allowing modifications when a trainer is already associated with a particular topic. This dynamic functionality not only streamlines the assignment process but also ensures adaptability in aligning trainers with specific topics, reinforcing the system's agility and versatility in managing training resources effectively.

D. Review the performance of your business application against the Problem Definition Statement and initial requirements (P6)

I. Test Case

ID	Test case name	Description	Test data	Expected	Actual	Remarks
TC1	Login	Login successful	Username: admin, Password: admin	Login successful	Login successful	Pass
TC2	Login	Login failed	Username: admin, Password: 5	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: female, 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,	Edit successful	Edit successful	Pass

			Phone: 123, gender: male, Fullname: test			
TC6	Account manager	Delete account	Id = 12	Delete successful	Delete successful	Pass
TC7	Account manager	Search account	Trainer	Display data of user has name: Admin	Display data of user has name: Admin	Pass
TC8	Category manager	Add category	Name: category5, 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 = 5	Delete successful	Delete successful	Pass
TC11	Category manager	Search category	Cate8	Display data of category has name: Cate2	Display data of category has name: Cate2	Pass
TC12	Course manager	Add course	Name: course4, Category: cate003, startDate: 10/09/2023, Status: active	Add successful	Add successful	Pass

TC13	Course manager	Edit course	Name: course2, Category: cate3, startDate: 10/09/2023, Status: active	Edit successful	Edit successful	Pass
TC14	Course manager	Delete course	Id = 20	Delete successful	Delete successful	Pass
TC15	Course manager	Search course	Course10	Display data of course has name: Course1	Display data of course has name: Course1	Pass
TC16	Topic manager	Add topic	Name: topic1, Course: course2, Document: document.doc Status: active	Add successful	Add successful	Pass
TC17	Topic manager	Edit topic	Name: topic2, Course: course2, Document: document2.doc Status: active	Edit successful	Edit successful	Pass
TC18	Topic manager	Delete topic	Id = 4	Delete successful	Delete successful	Pass

TC19	Topic manager	Search topic	Topic3	Display data of topic has name: Topic1	Display data of topic has name: Topic1	Pass
TC20	Assign trainer manager	Add assign trainer	Trainer: 2, Course: 2, Status: active	Add successful	Add successful	Pass
TC21	Assign trainer manager	Edit assign trainer	Trainer: 2, Course: 1, Status: active	Edit successful	Edit successful	Pass
TC22	Assign trainer manager	Delete assign trainer	Id = 8	Delete successful	Delete successful	Pass
TC23	Assign trainee manager	Add assign trainee	Trainee: 4, Topic: 2, Status: active	Add successful	Add successful	Pass
TC24	Assign trainee manager	Edit assign trainee	Trainee: 6, Topic: 5, Status: active	Edit successful	Edit successful	Pass
TC25	Assign trainee manager	Delete assign trainee	Id = 4	Delete successful	Delete successful	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
						97% (26/27)

II. Critical Evaluation

- Upon scrutinizing the survey findings and consolidating insights from previous searches, I'm poised to conduct a critical evaluation that encapsulates the project's strengths, weaknesses, and opportunities for enhancement. The survey responses, predominantly rated between level 3 and level 5 across various aspects, have offered nuanced perspectives.
- **Strengths:**
 - Clarity in Problem Definition: The project's forte lies in articulating the problem definition statement, with commendable ratings hovering around level 4. This strength affirms the application's alignment with identified needs, laying a solid foundation.
 - Effective Solution Implementation: The feedback indicates a generally effective implementation of the proposed solution. The average to high effectiveness ratings underscore the project's capability to offer solutions that resonate well, albeit with room for further enhancement.
 - Comprehensive Development Strategy: The positive feedback on the clarity and comprehensiveness of the development strategy, predominantly rated around level 4, signifies a well-defined and communicated plan. This robust strategy forms a strong pillar for the project's execution.
 - Design Alignment and Functionality: The application's alignment with its intended functionality and user experience received predominantly positive feedback around level

4. This indicates a solid foundation but suggests refinements for optimal usability and experience.

- **Weaknesses:**

- Interface Intuitiveness: The moderate ratings for interface intuitiveness, averaging around level 3 to 4, point towards the need for improvements in navigation and user-centric design. Enhancing the interface can significantly boost user satisfaction and engagement.

- **Opportunities for Upgrade:**

- Refinement of Proposed Solution: Leveraging user feedback to refine the proposed solution can elevate its effectiveness further. An iterative approach based on user insights can fine-tune the application, ensuring it precisely meets user needs.
- Optimizing Development Strategies: While the development strategy was positively received, it's an opportune moment to scrutinize areas for refinement. Continuous improvement in development approaches can enhance efficiency and innovation.
- Enhanced Interface Design: Prioritizing interface improvements, focusing on intuitive navigation and user-centric design, will significantly augment user experience and overall satisfaction.
- Iterative Testing and Feedback Incorporation: Instituting a robust feedback loop, incorporating iterative testing, and agile feedback integration can refine the application continually. This ensures alignment with user expectations and evolving needs.

E. Conclusion

In conclusion, this critical evaluation underscores the project's notable strengths while acknowledging areas for enhancement. Leveraging these insights, I'm committed to adopting an iterative approach, refining the solution, optimizing development strategies, and prioritizing interface enhancements. Embracing user-centric iterations and robust testing will drive the project towards its zenith, ensuring it delivers an intuitive, effective, and highly satisfactory solution aligned with user expectations.

F. Reference

Survey:

- https://docs.google.com/forms/d/e/1FAIpQLSfuCzh3-hvdSqTYTOjJsba8JYjpgJSafE14bldsJrOGL_UNAA/viewform?usp=sf_link \

Source Code: https://github.com/ThanhDo03/Web_AD_ASM2.git

Mark Otto, J. T. (no date) *Introduction*, · *Bootstrap v5.0*. Available at:

<https://getbootstrap.com/docs/5.0/getting-started/introduction/> (Accessed: 9 December 2023).