

## ASSIGNMENT 2 FRONT SHEET

<b>Qualification</b>	<b>BTEC Level 5 HND Diploma in Computing</b>		
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<b>Submission date</b>		<b>Date Received 1st submission</b>	
<b>Re-submission Date</b>		<b>Date Received 2nd submission</b>	
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<b>Student declaration</b>  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.			
		<b>Student's signature</b>	Son

### 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 report, we will delve into the following contents: First, develop a formal questionnaire to evaluate business application effectiveness, problem definition statement, proposed solution and strategy. development strategy. This questionnaire will be used as part of the peer review process and any feedback given will be noted. Second, develop a functional business application based on a specific business problem. Third, evaluate the performance of the business application against the Problem Definition Statement and initial requirements. To gain a deeper understanding of these three parts, we will provide the following additional information and insights: First, analyze feedback from peer reviews and identify opportunities that were not previously considered. Second, develop a functional business application based on the specific Software Design Document with supporting evidence of the use of selected tools, techniques and methods. Finally, analyze the factors that influence the performance of a business application and use them to perform a critical evaluation of the application's design, development, and testing phases. Final comments include a reflective discussion of your previously identified risks.

## II. CONTENTS

**P4 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**

### 1. Formal questionnaire

To let everyone know whether the website is working well or not, I created this survey. Let everyone evaluate the website for any errors that need to be fixed. Here are the questions I researched to come up with the questions below:

Describe a positive experience you have had using an internal learning management system.

- ☐ I can easily search and access training content quickly and conveniently.
- ☐ The system has provided good support tools to help me organize and manage courses effectively.
- ☐ I can interact and continue to function with the student's information system.
- ☐ I had difficulty trying to access the system and could not find the information I needed.

In your opinion, what are the main strengths of an internal training management system? Please provide a specific example if possible.

- ☐ Flexibility: The system allows training content to be customized to reflect the organization's policies and ...
- ☐ Performance: The system automatically tracks students' learning progress and provides performance re...
- ☐ Interactivity: The system facilitates interactive work between learners and those being taught through too...
- ☐ Integrity: The system combines many types of training content such as videos, solutions and tests to cre...

...

Please share a case when you encountered difficulties or obstacles when using an internal training management system.

- ☐ I encountered difficulties when the system had technical problems and could not access the training con...
- ☐ I encountered problems when trying to upload attachments to the system because space is limited.
- ☐ The system does not provide enough resources and support to resolve my questions during use.
- ☐ I have difficulty finding and choosing training content that suits my needs.

...

How do you think the system could be improved to create a better training experience for users?

- ☐ Enhance interactivity: Add new features such as online forums or webinars to create a more interactive le...
- ☐ Improved user interface: Optimize the user interface to make accessing and using the system easier and...
- ☐ Enhance performance: Expand custom content adjustment and user management features to reflect the ...
- ☐ Improve technical support: Provide quick and professional technical support to solve technical problems ...

...

In your opinion, what features or tools should be added to the system to improve your experience when designing and developing training courses?

- ☐ Integrate assessment tools and student feedback to provide important information for improving training...
- ☐ Provides extensive optional options so administrators can tailor the course interface and structure.
- ☐ Develop an online support system or help center to resolve technical or content queries.
- ☐ Create automation tools for managing and tracking learners' learning process to reduce manual work for ...

During your use of the system, have you found recipes that require access to training content or other information?

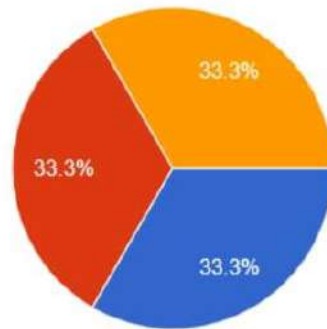
- ☐ I have difficulty finding and choosing training content that suits my needs.
- ☐ The system causes inconvenience when I have to log in multiple times to access training resources.
- ☐ I am having problems with the uniformity of training content due to fragmentation or inconsistency.
- ☐ I had difficulty trying to access the system from mobile devices because of the unfriendly interface.

## 2. Feedback

Describe a positive experience you have had using an internal learning management system.

 Copy

3 responses

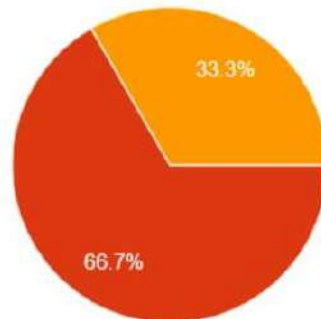


- I can easily search and access training content quickly and conveniently.
- The system has provided good support tools to help me organize and manage courses effectively.
- I can interact and continue to function with the student's information system.
- I had difficulty trying to access the system and could not find the information I needed.

In your opinion, what are the main strengths of an internal training management system? Please provide a specific example if possible.

 Copy

3 responses



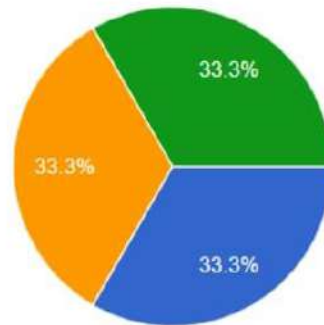
- Flexibility: The system allows training content to be customized to reflect the organization's policies and workflows...
- Performance: The system automatically tracks students' learning progress and provides performance reports to feedb...
- Interactivity: The system facilitates interactive work between learners and...
- Integrity: The system combines many types of training content such as video...



Please share a case when you encountered difficulties or obstacles when using an internal training management system.

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3 responses

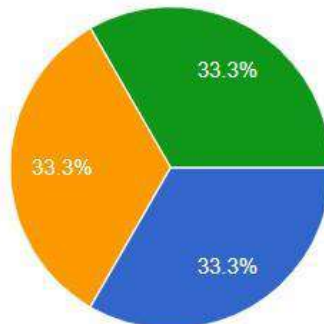


- I encountered difficulties when the system had technical problems and could not access the training content f...
- I encountered problems when trying to upload attachments to the system because space is limited.
- The system does not provide enough resources and support to resolve my q...
- I have difficulty finding and choosing training content that suits my needs.

How do you think the system could be improved to create a better training experience for users?

 Copy

3 responses



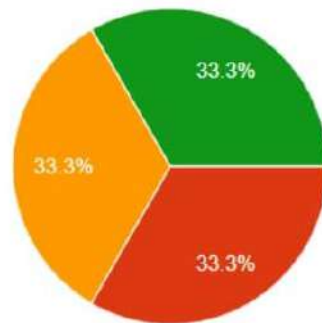
- Enhance interactivity: Add new features such as online forums or webinars to create a more interactive learning envi...
- Improved user interface: Optimize the user interface to make accessing and using the system easier and more co...
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- Improve technical support: Provide quick and professional technical support to...



In your opinion, what features or tools should be added to the system to improve your experience when designing and developing training courses?

 Copy

3 responses

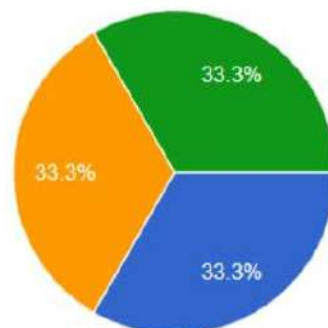


- Integrate assessment tools and student feedback to provide important information for improving training content.
- Provides extensive optional options so administrators can tailor the course interface and structure.
- Develop an online support system or help center to resolve technical or content issues.
- Create automation tools for managing and tracking learners' learning processes.

During your use of the system, have you found recipes that require access to training content or other information?

 Copy

3 responses



- I have difficulty finding and choosing training content that suits my needs.
- The system causes inconvenience when I have to log in multiple times to access training resources.
- I am having problems with the uniformity of training content due to fragmentation or inconsistency.
- I had difficulty trying to access the system from mobile devices because...

## **P5 Develop a functional business application based on a specified business problem**

### **1. Requirement**

In ASM1, I learned about diagrams, application tools, languages, developed ideas, and wrote reports. Then in ASM 2, I started implementing the project.

This is the system used by the human resources department. We have three roles in this system, admin, training officer and coach. A brief description of those roles is as follows.

#### Role of administrator

- It is possible to log in to the system through the first page of the application.
- Can create/edit/delete new user accounts for instructors/training staff
- and assign/change (if existing user) username and password.

#### Role of training staff

- Registered training staff, given a username and login password by the administrator, can create a student account by entering details such as student name, student account, age, date birth, education level, main programming language, Toeic score, detailed experience, department, location, etc.
- After successfully entering all student information, the student information will be saved in the database. The training staff was given a list of students for him to view and search. From the student list, he can also search by student account, programming language, Toeic score...
- You can update and delete trainee accounts.
- Can manage course categories such as searching, adding, updating and deleting course categories. The course catalog includes information such as the course catalog name and description.
- Can manage courses such as searching, adding, updating, deleting courses. Course includes course name and description.
- Topics such as topic name and topic description can be added to a course, courses to a category.
- Can manage lecturer profile such as adding, updating and deleting information: Lecturer name, External or internal type, place of work, phone and email address.
- Instructors can be assigned to a topic.
- Students can be assigned to a course.

#### Role of the coach

- In the same system, lecturers who have been registered by admin can log in and update their profile such as Lecturer name, External or internal type, educational level, place of work, phone and email address.

## 2. Deployment steps

- **Step 1: Prepare the environment:**

Set up the deployment environment, ensuring it meets system requirements. In this project we choose Visual Studio 2022 to deploy the project.

- **Step 2: Deploy the database:**

Back up and deploy the system's database to the deployment environment. We choose SQLServer to deploy this project.

- **Step 3: Deploy the application:**

Back up and deploy application code to the deployment environment.

- **Step 4: Configuration and integration:**

Configure environment variables and integrate the system with the HR database.

- **Step 5: Testing in phase:**

Conduct testing in a staging environment to ensure a smooth transition.

- **Step 6: Safe deployment:**

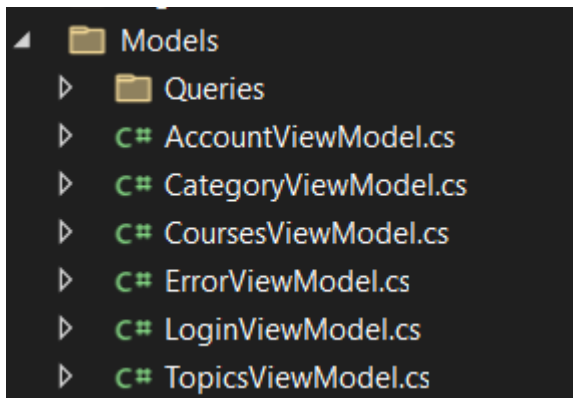
Implement security measures, such as Cms, HTTPS, for a secure deployment.

Step 7: User acceptance testing (UAT):

Conduct user acceptance testing with HR staff to validate functionality.

## 3. Code

### ViewModel



Below is the code representing ViewModel

```

9 references
public class LoginViewModel
{
    3 references
    public string? Id { get; set; }
    2 references
    public string? RoleId { get; set; }
    4 references
    public string? Username { get; set; }
    2 references
    public string? Password { get; set; }
    3 references
    public string? Email { get; set; }
    1 reference
    public string? Phone { get; set; }
    1 reference
    public string? Extracode { get; set; }
}

```

This code defines a class named “LoginViewModel”, which is typically used to represent the data associated with a user's login information. Here's an explanation of each part of the code:

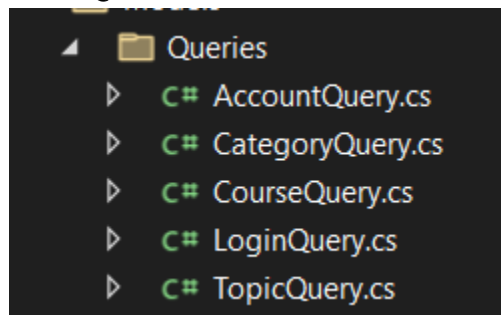
**LoginViewModel class:** This is a class definition in C. It encapsulates the properties related to a user's login information:

- **Id:** Represents the unique identifier of the user.
- **RoleId:** Represents the role identifier of the user, which defines their permissions or access level within the system.
- **Username:** Represents the username of the user used for login purposes.
- **Password:** Represents the password of the user used for login authentication.
- **Email:** Represents the email address associated with the user's account.
- **Phone:** Represents the phone number associated with the user's account.
- **Extracode:** This represents any additional code or information associated with the user, which might be specific to the application.

Each property has a getter and setter method, denoted by {get; set;}. These methods allow getting and setting the values of the properties respectively.

The? after the string type (string?) indicates that these properties can be assigned a null value. This allows for more flexibility when handling potentially nullable data.

## Queries



Below is the code representing Queries

```
using Microsoft.Data.SqlClient;

namespace TrainingFPT.Models.Queries
{
    1 reference
    public class LoginQuery
    {
        1 reference
        public LoginViewModel CheckUserLogin(string? username, string? password)
        {
            LoginViewModel dataUser = new LoginViewModel();
            using (SqlConnection conn = Database.GetSqlConnection())
            {
                string querySql = "SELECT * FROM [Users] WHERE [Username] = @username AND [Password] = @password";
                SqlCommand cmd = new SqlCommand(querySql, conn);
                cmd.Parameters.AddWithValue("@username", username ?? (object)DBNull.Value);
                cmd.Parameters.AddWithValue("@password", password ?? (object)DBNull.Value);
                conn.Open();
                using (SqlDataReader reader = cmd.ExecuteReader())
                {
                    while (reader.Read())
                    {
                        dataUser.Id = reader["Id"].ToString();
                        dataUser.UserName = reader["Username"].ToString();
                        dataUser.RoleId = reader["RoleId"].ToString();
                        dataUser.Email = reader["Email"].ToString();
                        dataUser.Phone = reader["Phone"].ToString();
                        dataUser.Extracode = reader["ExtraCode"].ToString();
                    }
                    conn.Close();
                }
            }
            return dataUser;
        }
    }
}
```

Let's break down what each part of the code does:

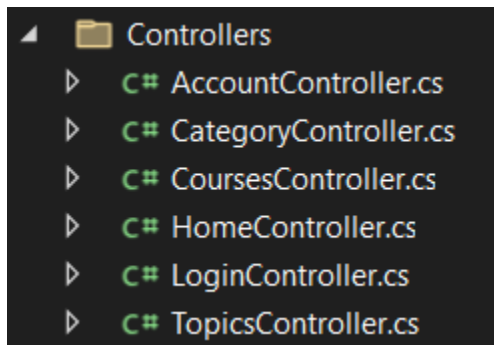
- `LoginViewModel dataUser = new LoginViewModel();`: This line creates a new instance of the `LoginViewModel` class to hold user data retrieved from the database.
- `using (SqlConnection conn = Database.GetSqlConnection());`: This line establishes a connection to the database using the `GetSqlConnection()` method from the `Database` class. The `using` statement ensures that the `SqlConnection` object is disposed of properly after its use, even if an exception occurs.
- `string querySql = "SELECT * FROM [Users] WHERE [Username] = @username AND [Password] = @password";`: This line defines an SQL query string to select user data from the `Users` table based on the provided username and password.
- `SqlCommand cmd = new SqlCommand(querySql, conn);`: This line creates a `SqlCommand` object with the SQL query and the database connection.
- `cmd.Parameters.AddWithValue("@username", username ?? (object)DBNull.Value);`: This line adds a parameter for the username to the `SqlCommand` object. It uses the null-coalescing operator (`??`) to handle the case where the username parameter is null, replacing it with `DBNull.Value`.
- `using (SqlDataReader reader = cmd.ExecuteReader());`: This line executes the SQL query using the `ExecuteReader()` method of the `SqlCommand` object and retrieves the results as a `SqlDataReader`.

object. The using statement ensures that the SqlDataReader object is disposed of properly after its use.

- `while (reader.Read()) { ... }`: This loop iterates over the results returned by the SQL query. Inside the loop, each row of data retrieved from the database is read, and its values are used to populate the properties of the `dataUser` object.
- `conn.Close();`: This line closes the database connection after reading all the results from the database.
- `return dataUser;`: This line returns the `dataUser` object containing user data retrieved from the database to the calling code.



## Controllers



Below is a representation of controllers called HomeController



```

4 references
public class HomeController : Controller
{
    private readonly ILogger<HomeController> _logger;

    0 references
    public HomeController(ILogger<HomeController> logger)
    {
        _logger = logger;
    }

    1 reference
    public IActionResult Index()
    {
        if (string.IsNullOrEmpty(HttpContext.Session.GetString("SessionUsername")))
        {
            return RedirectToAction(nameof(LoginController.Index), "Login");
        }
        return View();
    }

    0 references
    public IActionResult Privacy()
    {
        return View();
    }

    [ResponseCache(Duration = 0, Location = ResponseCacheLocation.None, NoStore = true)]
    0 references
    public IActionResult Error()
    {
        return View(new ErrorViewModel { RequestId = Activity.Current?.Id ?? HttpContext.TraceIdentifier });
    }
}

```

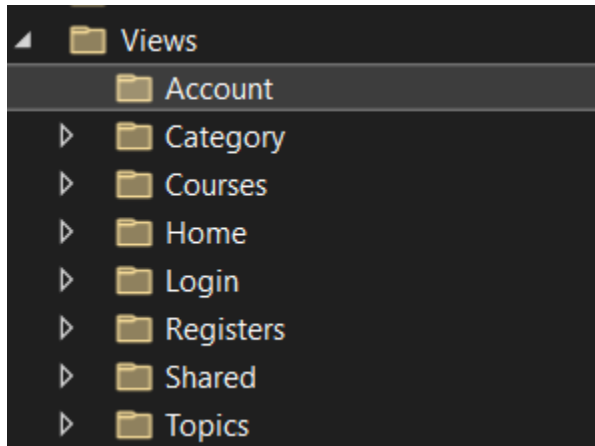
Let's break down what each part of the code does:

- This constructor initializes a new instance of the HomeController class. It accepts a logger (ILogger<HomeController>) as a parameter. The logger is used for logging messages within the controller.
- The Index action method handles requests to the default route of the HomeController. It checks if the session variable "SessionUsername" is null or empty. If it is, meaning the user is not logged in, it redirects to the Index action method of the LoginController to prompt the user to log in. If the user is logged in (the session variable is not null or empty), it returns the default view for the Index action.
- The Error action method handles errors within the application. It returns the view associated with the "Error" action, passing an ErrorViewModel object containing a request ID. This action method is decorated with the [ResponseCache] attribute, which specifies that responses should not be cached (NoStore = true) and should not have a specified duration (Duration = 0). This ensures that error responses are not cached by browsers or intermediary servers.



## Views

Below is the code representing Views including Login, Home, Category, Courses, Topics in which sections include Add, Edit, Index.



Below is the Create code of Topic in Views

```

1  6*
2  For more information on enabling MVC for empty projects, visit https://go.microsoft.com/fwlink/?linkID=397868
3
4  @model TrainingFPT.Models.TopicDetail
5
6  @{
7      ViewData["Title"] = "Create new Topics Page";
8      ViewData["namePage"] = "Create new Topic";
9      ViewBag.report = false;
10
11      Layout = "~/Views/Shared/_LayoutMain.cshtml";
12  }
13  <div class="row">
14      <div class="col-sm-12 col-md-12">
15          <a class="btn btn-primary" href="@Url.Action("Index", "Topics")"> Back to list Topics </a>
16          <div class="card card-primary my-3">
17              <div class="card-header">
18                  <h5 class="card-title"> Create new Topics </h5>
19              </div>
20              <div class="card-body">
21                  <form enctype="multipart/form-data" method="post" asp-action="Add">
22                      <div class="row">
23                          <div class="col-sm-12 col-md-6">
24                              <div class="form-group mb-3">
25                                  <label asp-for="NameTopic"></label>
26                                  <input type="text" class="form-control" asp-for="NameTopic" />
27                                  <span asp-validation-for="NameTopic"></span>
28                              </div>
29                              <div class="form-group mb-3">
30                                  <label> Course </label>
31                                  <select class="form-control"
32                                      asp-for="CourseId"
33                                      asp-items="@((new SelectList(ViewBag.Courses, "Value", "Text")))">
34                                  </select>
35                                  <span asp-validation-for="CourseId"></span>
36                              </div>
37                              <div class="form-group mb-3">
38                                  <label asp-for="Description"></label>
39                                  <textarea asp-for="Description" class="form-control" rows="5"></textarea>

```

Below is the Edit code of Topic in Views

```

1  *
2  For more information on enabling MVC for empty projects, visit https://go.microsoft.com/fwlink/?linkID=397368
3  *
4  @model TrainingFPI.Models.TopicDetail
5
6
7  @{
8      ViewData["Title"] = "Topic Page Update";
9      ViewData["namePage"] = "Topic Update";
10     ViewBag.report = false;
11
12     Layout = "~/Views/Shared/_LayoutMain.cshtml";
13 }
14
15 <div class="row">
16     <div class="col-sm-12 col-md-12">
17         <div class="card">
18             <div class="card-header">
19                 <h5> Update Topic</h5>
20             </div>
21             <div class="card-body">
22                 <form enctype="multipart/form-data" asp-action="Edit">
23                     <div class="row">
24                         <div class="col-sm-12 col-md-6">
25                             <div class="form-group ab-3">
26                                 <label asp-for="NameTopic"></label>
27                                 <input type="text" asp-for="NameTopic" class="form-control" />
28                                 <span asp-validation-for="NameTopic" class="text-danger"></span>
29                                 @* id cua course *@
30                                 <input type="hidden" asp-for="Id" />
31                             </div>
32                             <div class="form-group ab-3">
33                                 <label> Course </label>
34                                 <select class="form-control"
35                                     asp-for="CourseId"
36                                     asp-items="@{(new SelectList(ViewBag.Courses, "Value", "Text"))}">
37                                 </select>
38                                 <span asp-validation-for="CourseId"></span>
39                             </div>
40                         </div>
41                     </div>
42                 </form>
43             </div>
44         </div>
45     </div>
46 </div>

```

Below is the Index code of Topic in Views

```

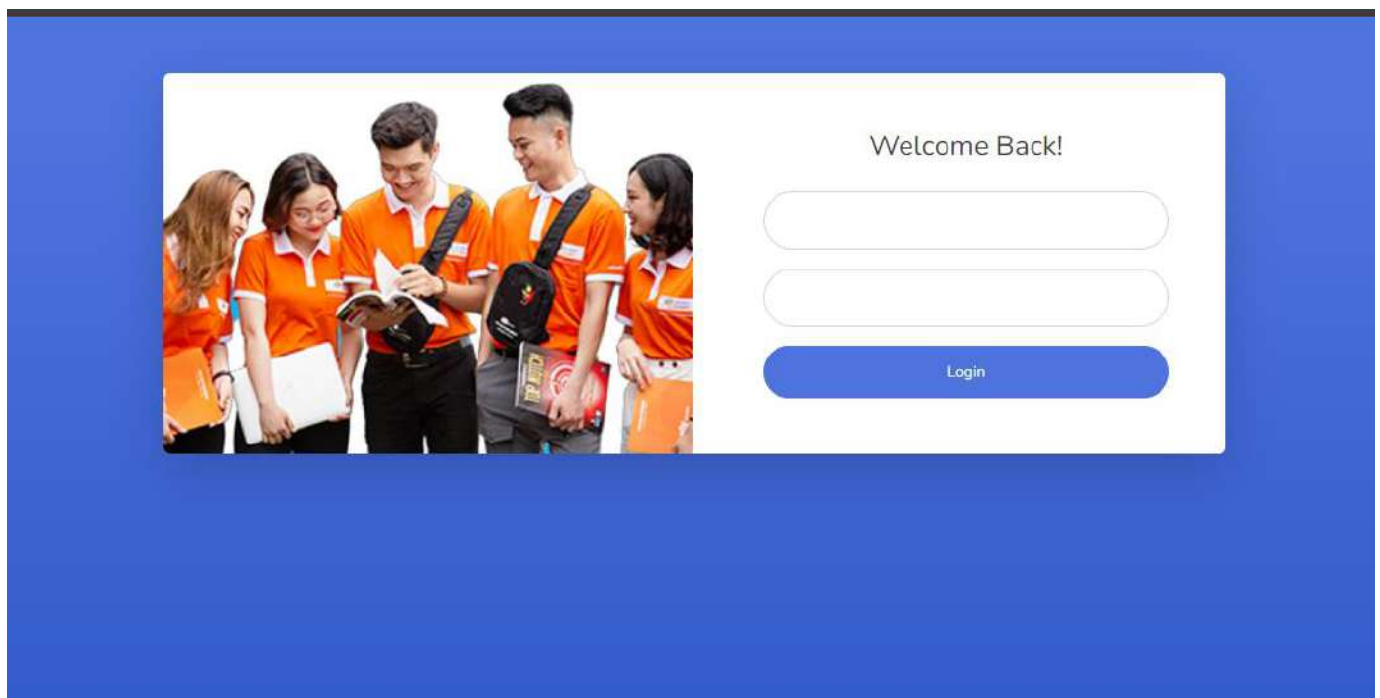
1  0*
2  For more information on enabling MVC for empty projects, visit https://go.microsoft.com/fwlink/?linkID=397860
3  *0
4
5  @model TrainingFPT.Models.TopicsViewModel
6
7  @{
8      ViewData["Title"] = "Topics Page";
9      ViewData["namePage"] = "Topic";
10     ViewBag.report = false;
11
12     Layout = "~/Views/Shared/_LayoutMain.cshtml";
13
14     bool saveStatus = Convert.ToBoolean(TempData["saveStatus"]);
15     bool statusDel = Convert.ToBoolean(TempData["statusDel"]);
16     bool statusUpdate = Convert.ToBoolean(TempData["updateStatus"]);
17 }
18
19 <div class="row">
20 <div class="col-sm-12 col-md-12">
21 <a class="btn btn-primary" href="@Url.Action("Add", "Topics")"> Add Topic + </a>
22 <form asp-action="Index" method="get" class="my-3">
23 <div class="form-group mb-3">
24 Find by name: <input name="SearchString" value="@ViewData["keyword"]" />
25 <span> | </span>
26 Filter by status :
27 <select name="Status">
28 <option value=""> Choose Status </option>
29 @if (ViewBag.Status == "Active")
30 {
31 <option value="Active" selected="selected"> Active </option>
32 }
33 else
34 {
35 <option value="Active"> Active </option>
36 }
37 @if (ViewBag.Status == "Deactive")
38 {
39 <option value="Deactive" selected="selected"> Deactive </option>
40 }
41 else
42 {
43 <option value="Deactive"> Deactive </option>
44 }
45 </select>
46 <span> | </span>
47 <button type="submit" class="btn btn-primary btn-sm"> Search and Filter </button>
48 <span> | </span>
49 <a asp-action="Index"> Back to lists </a>
50 </div>
51 </form>

```

## 4. Result

### 4.1. Home Page


Below is the project code for Developing an internal training management system for the company



**Login:** Enter the username and password registered in the database



**Login successful:** Login successful: when clicking the "Login" button, the login operation is successful and you can access the home page.

 FPT TRAINING

Dashboard

Accounts


Category

Courses

Topics

3+

7

ngocson 

Generate Report

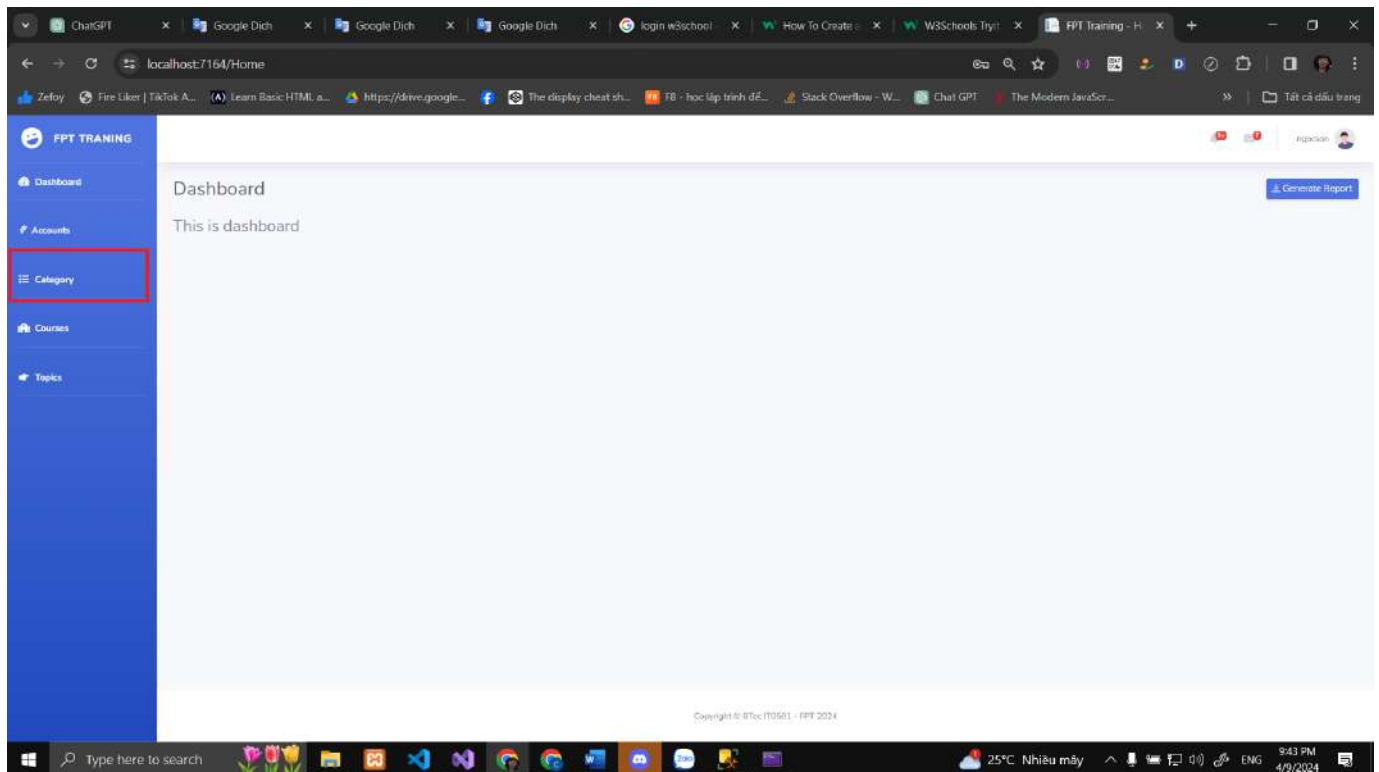
Dashboard

This is dashboard

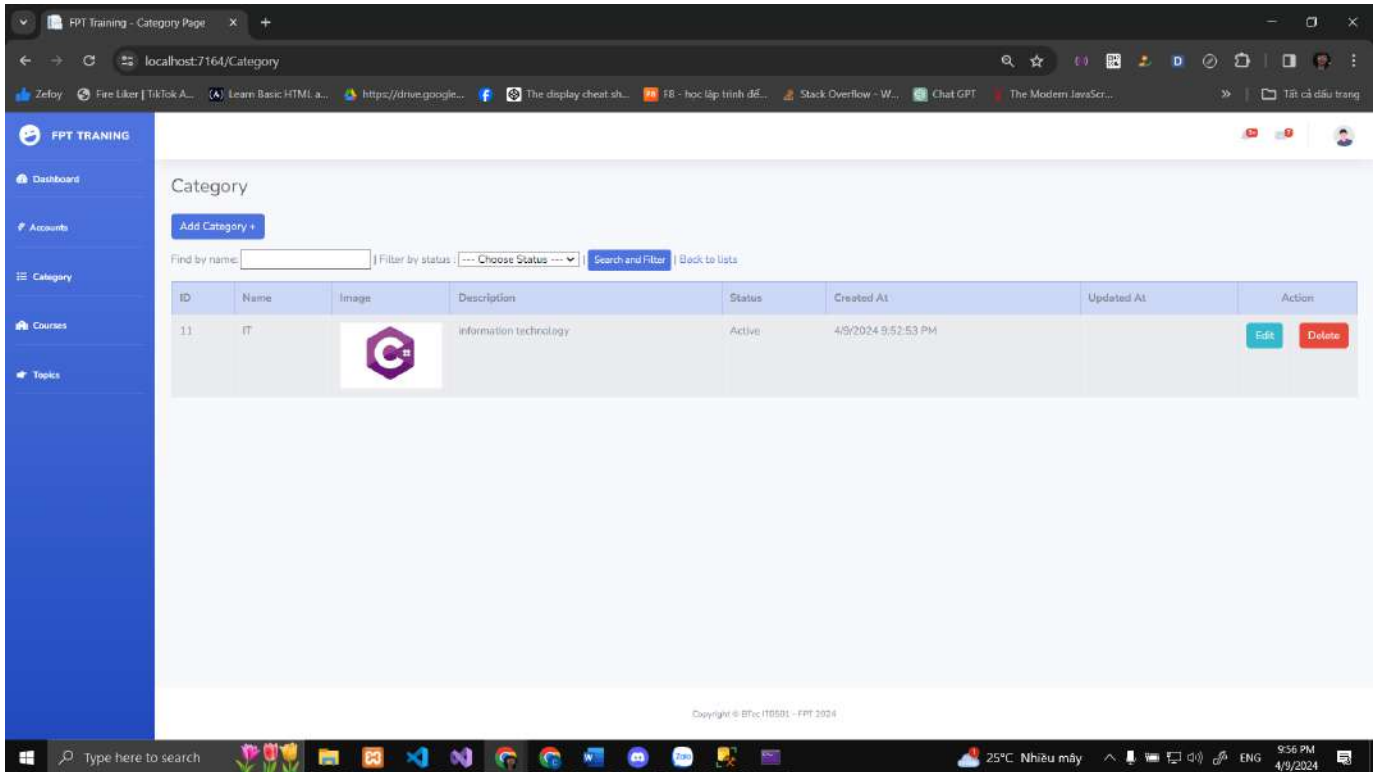
Copyright © BTec IT0501 - FPT 2024

## 4.2. Category


When you click on "Category", it will display a category for you to add, edit, delete and display the newly added products.



This is the category "Category" displayed

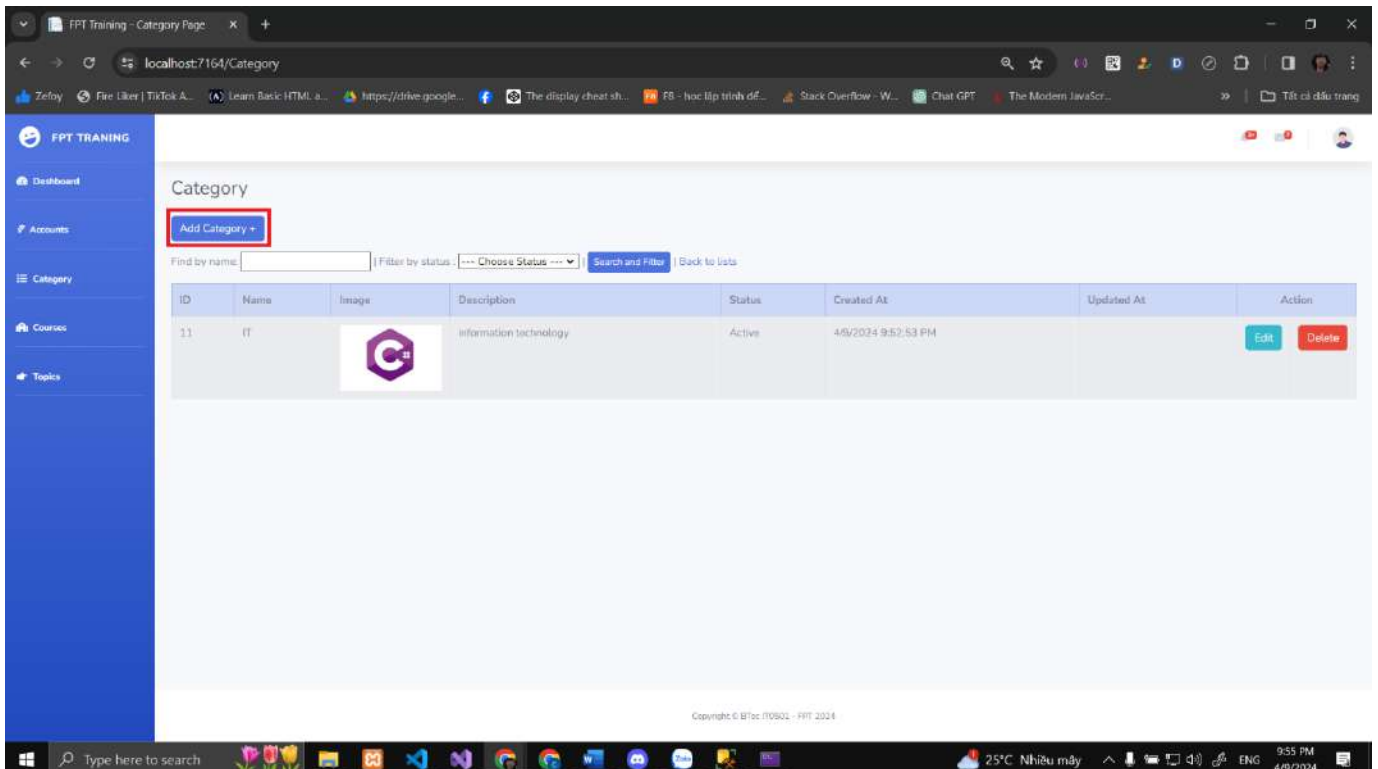


The screenshot shows a web application interface for managing categories. The browser address bar indicates the URL is `localhost:7164/Category`. The page title is "Category". There is a sidebar on the left with navigation links: Dashboard, Accounts, Category (selected), Courses, and Topics. The main content area has a header with "Add Category +" button, a search bar, and a filter dropdown. Below this is a table with the following data:

ID	Name	Image	Description	Status	Created At	Updated At	Action
11	IT		information technology	Active	4/9/2024 9:52:53 PM		<a href="#">Edit</a> <a href="#">Delete</a>

At the bottom of the page, there is a copyright notice: "Copyright © BTEC IT0501 - FPT 2024".

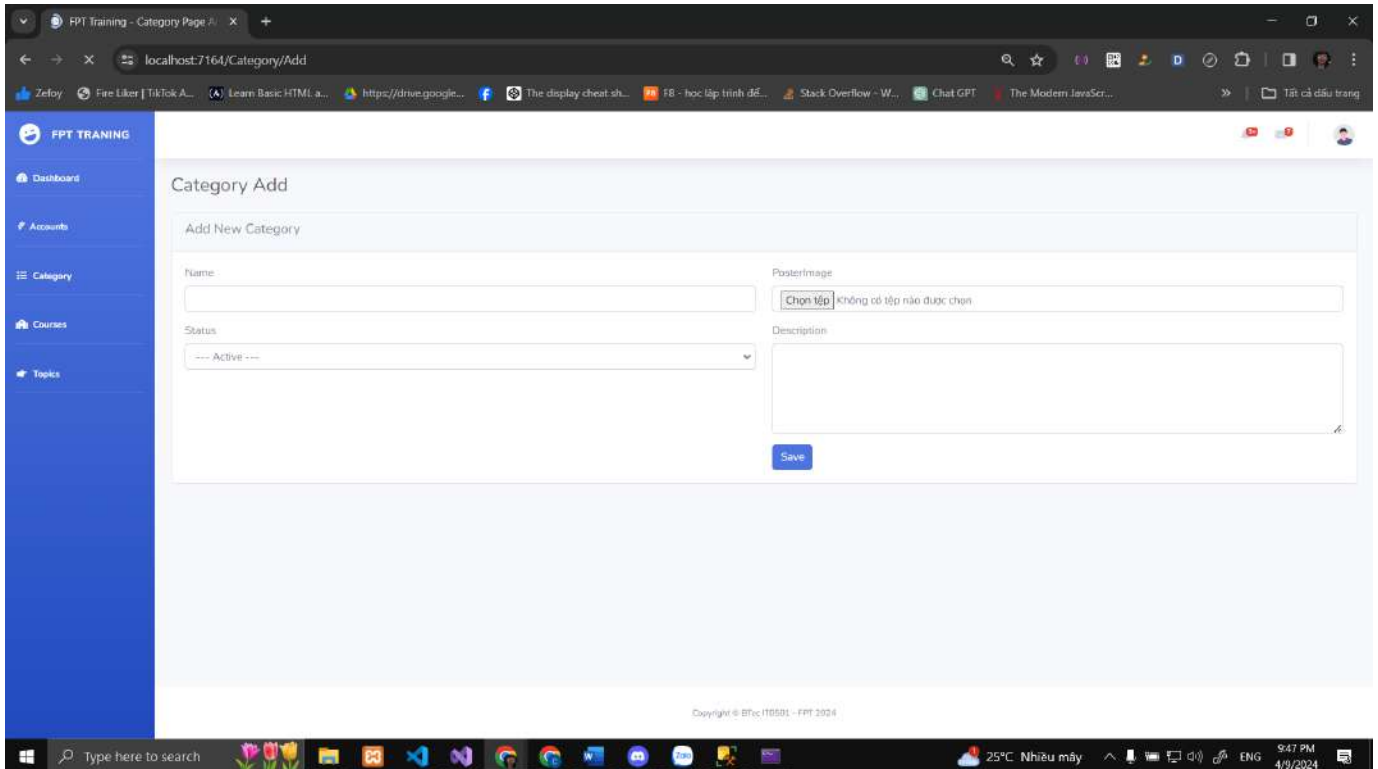
**Add Category:** Enable the addition of a new category



This screenshot is identical to the one above, but with a red rectangular box highlighting the "Add Category +" button in the main content area header.



Add the information you need to fill in "Category" and press the "Save" button

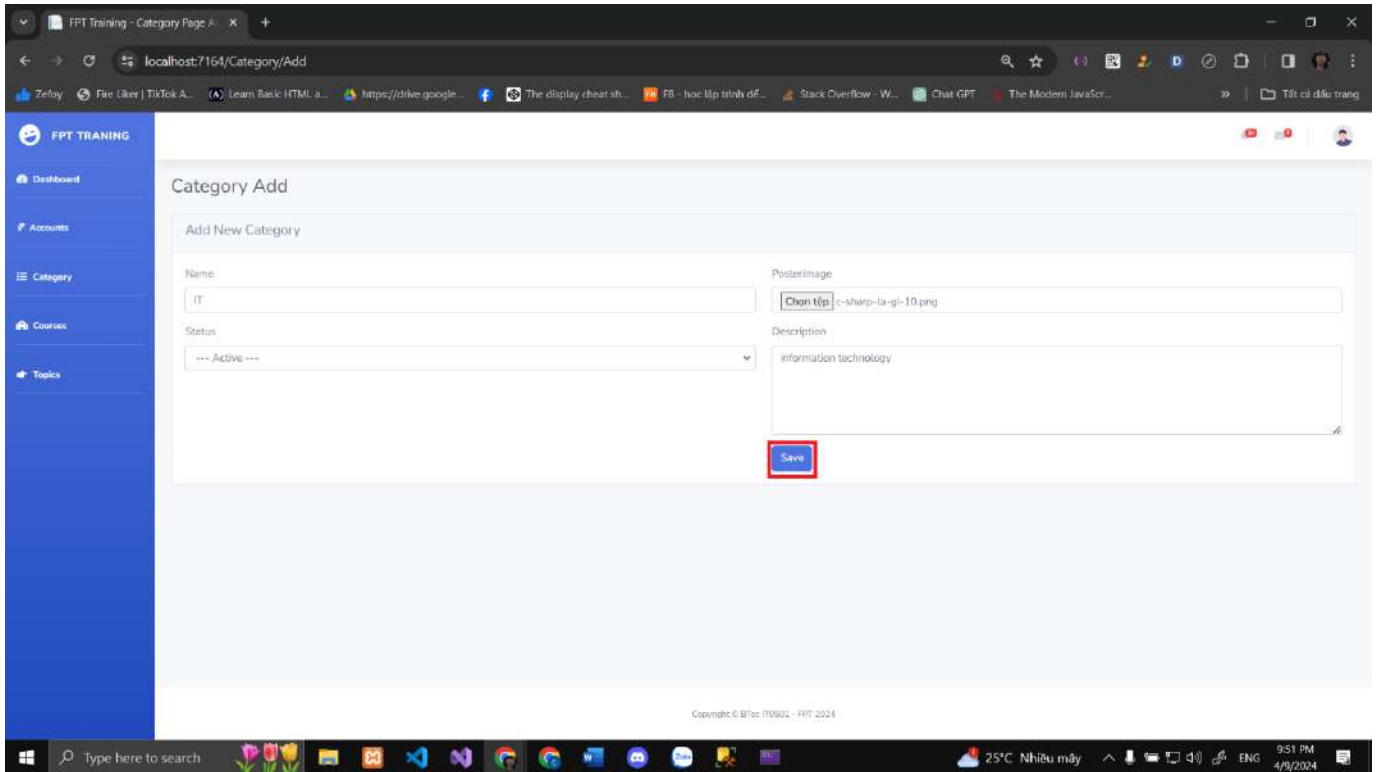


The screenshot shows a web browser window with the URL `localhost:7164/Category/Add`. The page title is "Category Add". On the left, there is a blue sidebar with the "FPT TRAINING" logo and a menu containing "Dashboard", "Accounts", "Category", "Courses", and "Topics". The "Category" menu item is selected. The main content area is titled "Add New Category" and contains a form with the following fields:

- Name:** A text input field.
- PosterImage:** A file upload button labeled "Chọn tệp" with the text "không có tệp nào được chọn" below it.
- Status:** A dropdown menu currently showing "Active".
- Description:** A large text area for entering details.

A blue "Save" button is located at the bottom right of the form. At the bottom of the page, there is a copyright notice: "Copyright © BTEC (10591) - FPT 2024". The Windows taskbar at the bottom shows the time as 9:47 PM on 4/9/2024, with a temperature of 25°C and weather "Nhiều mây".

More information press the "Save" button



**FPT TRAINING**

- Dashboard
- Accounts
- Category
- Courses
- Topics

### Category Add

Add New Category

Name:

Status:

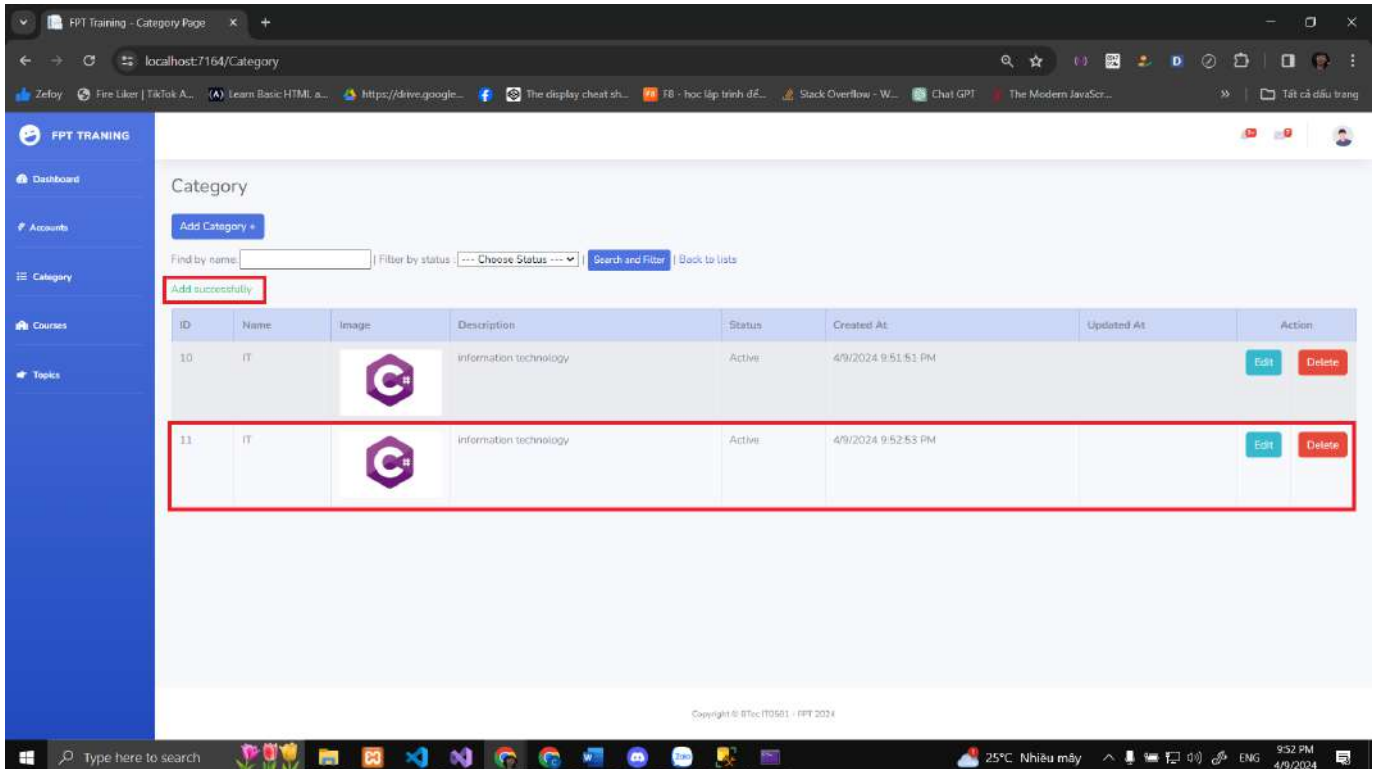
PosterImage:  [Chon tệp](#)

Description:

[Save](#)

Copyright © BTEC IT0502 - FPT 2024

**Add category successful:** upon clicking " Add category ", save operation is successful



**FPT TRAINING**



- Dashboard
- Accounts
- Category
- Courses
- Topics

### Category

[Add Category +](#)

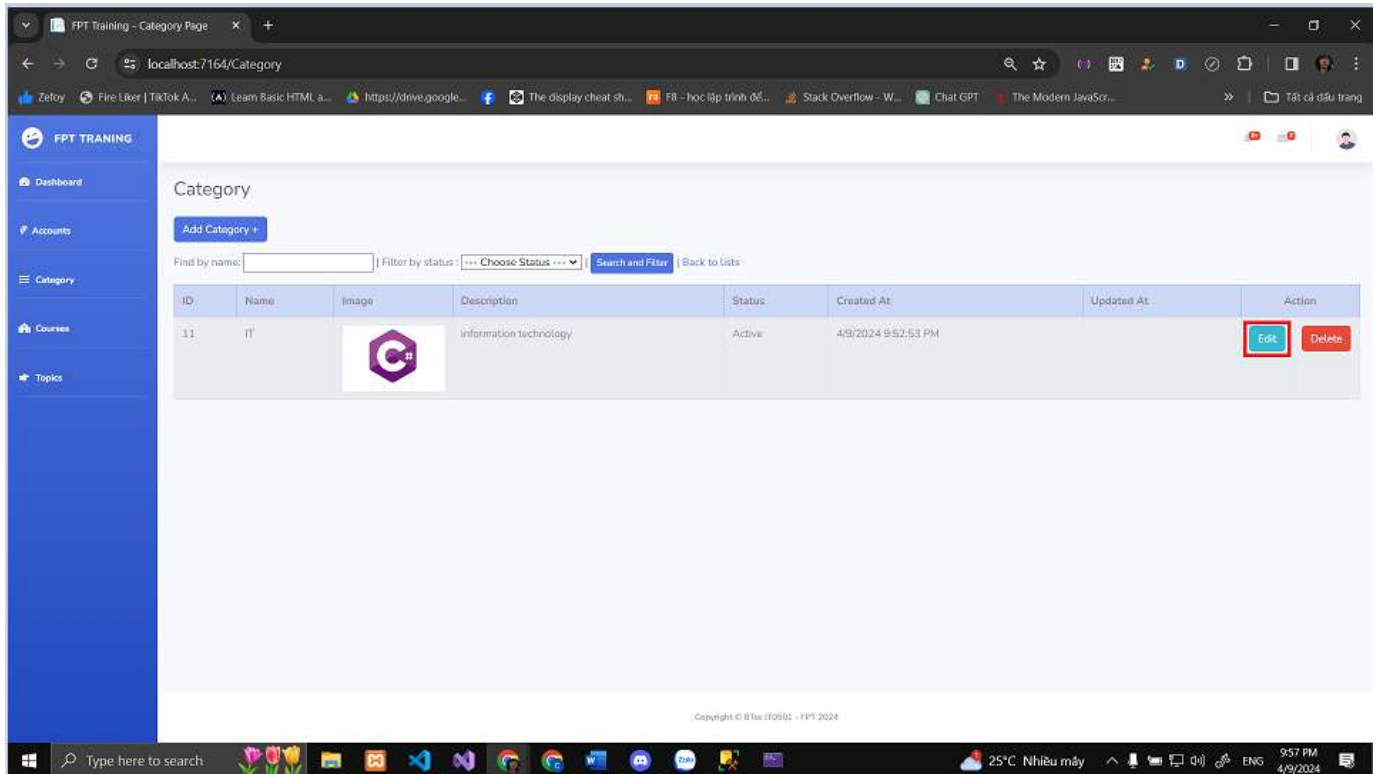
Find by name:  | Filter by status:  | [Search and Filter](#) | [Back to lists](#)

[Add successfully](#)

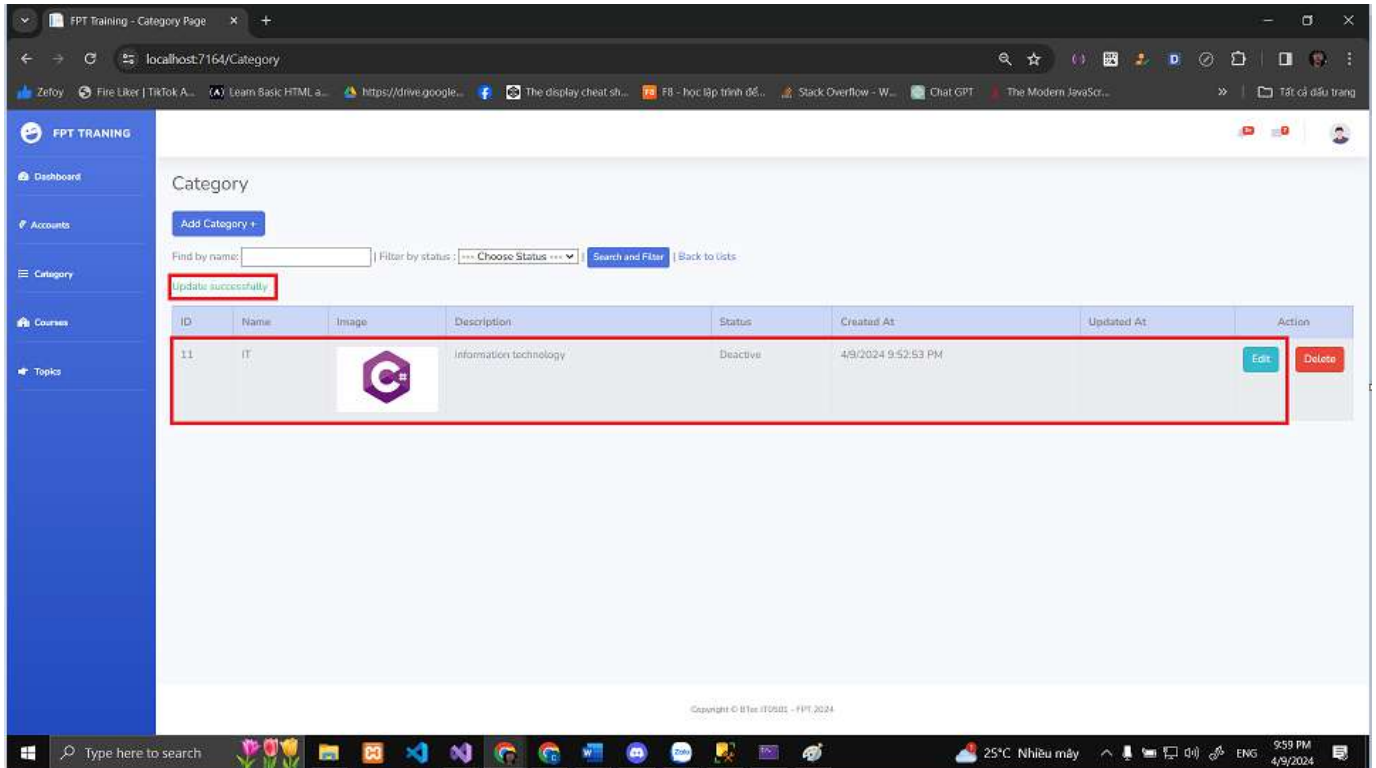
ID	Name	Image	Description	Status	Created At	Updated At	Action
10	IT		information technology	Active	4/9/2024 9:51:51 PM		<a href="#">Edit</a> <a href="#">Delete</a>
11	IT		information technology	Active	4/9/2024 9:52:53 PM		<a href="#">Edit</a> <a href="#">Delete</a>

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**Edit:** allow modifications to the selected categoryId



**Edit category successful:** when clicking the " Update Category" button, the category update is successful

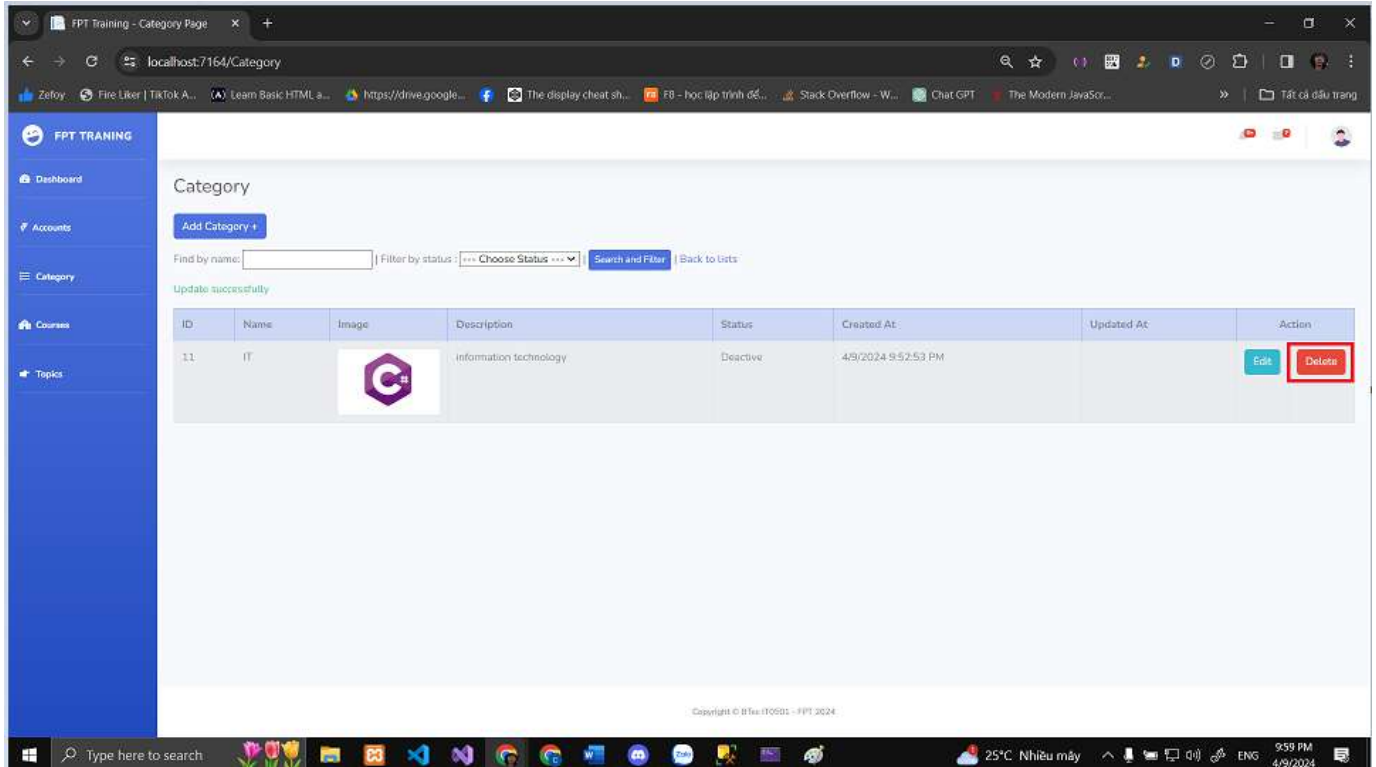


The screenshot shows a web application interface for managing categories. The page title is "Category". There is a sidebar on the left with navigation links: Dashboard, Accounts, Category (selected), Courses, and Topics. The main content area has a header "Category" and a button "Add Category +". Below this is a search bar with "Find by name:" and a filter dropdown "Filter by status: --- Choose Status ---". A "Search and Filter" button is next to the filter. A red box highlights the message "Update successfully". Below this is a table with the following data:


ID	Name	Image	Description	Status	Created At	Updated At	Action
11	IT		Information technology	Deactive	4/9/2024 9:52:53 PM		<a href="#">Edit</a> <a href="#">Delete</a>

At the bottom of the page, there is a copyright notice: "Copyright © B.Tec (P)2022 - FPT 2024". The Windows taskbar at the bottom shows the time as 9:59 PM on 4/9/2024.

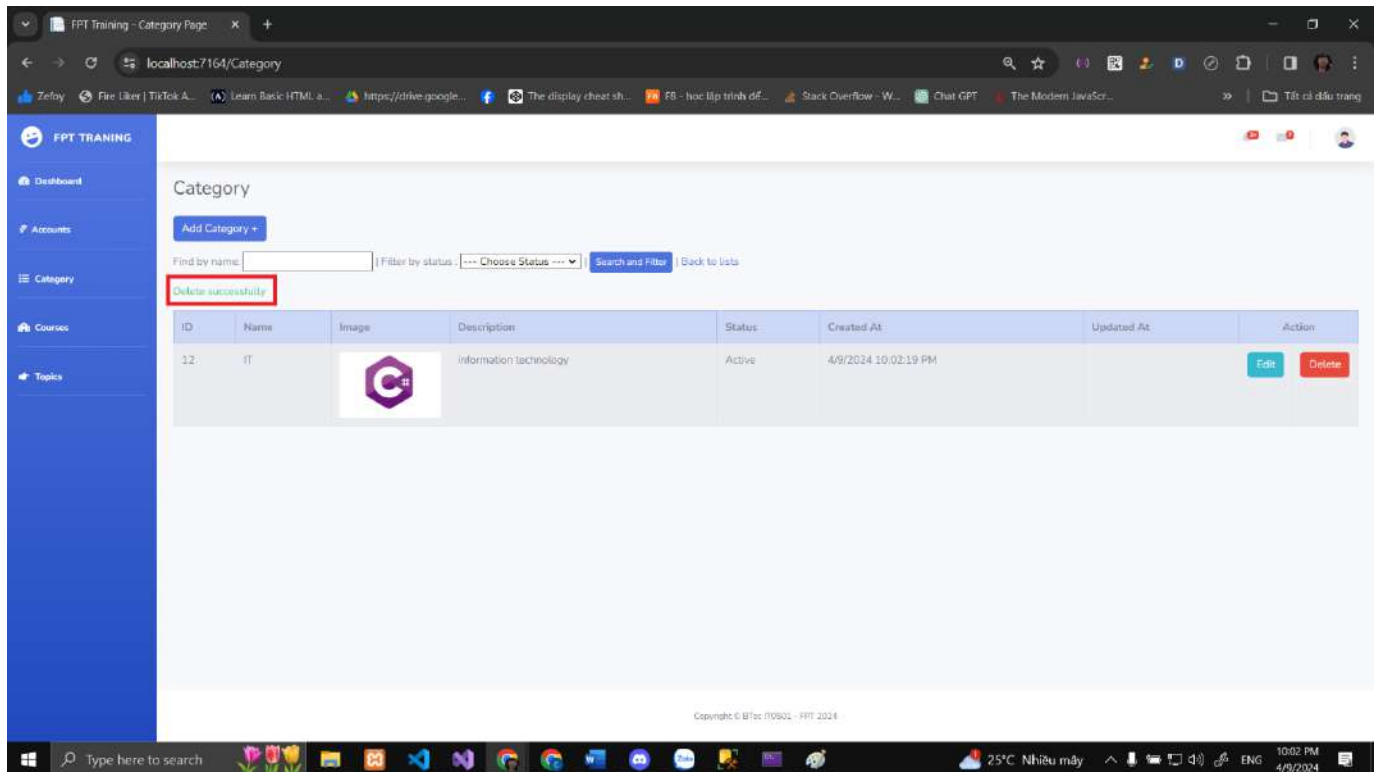
**Delete:** Provide the capability to remove the selected CategoryID.



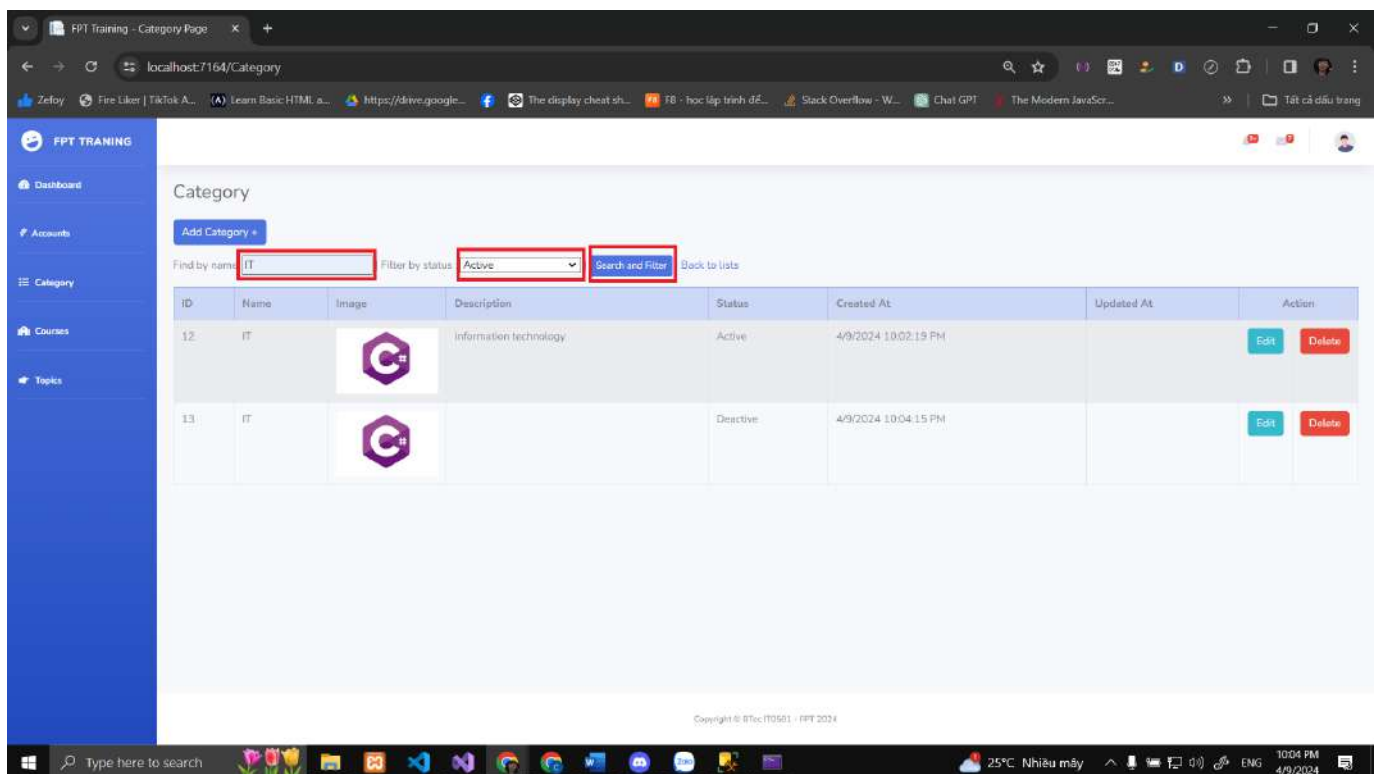
The screenshot shows a web application interface for managing categories. The page title is "FPT Training - Category Page". The URL is "localhost:7164/Category". The left sidebar contains a menu with "Dashboard", "Accounts", "Category", "Courses", and "Topics". The main content area is titled "Category" and includes a form to "Add Category" and a search filter section. Below the search filter, a message "Update successfully" is displayed. A table lists the categories, with one entry: ID 11, Name IT, Image (a purple 'C' logo), Description "information technology", Status "Deactive", Created At "4/9/2024 9:52:53 PM", and Updated At. The "Action" column for this entry contains "Edit" and "Delete" buttons, with the "Delete" button highlighted in red.

ID	Name	Image	Description	Status	Created At	Updated At	Action
11	IT		information technology	Deactive	4/9/2024 9:52:53 PM		<a href="#">Edit</a> <a href="#">Delete</a>

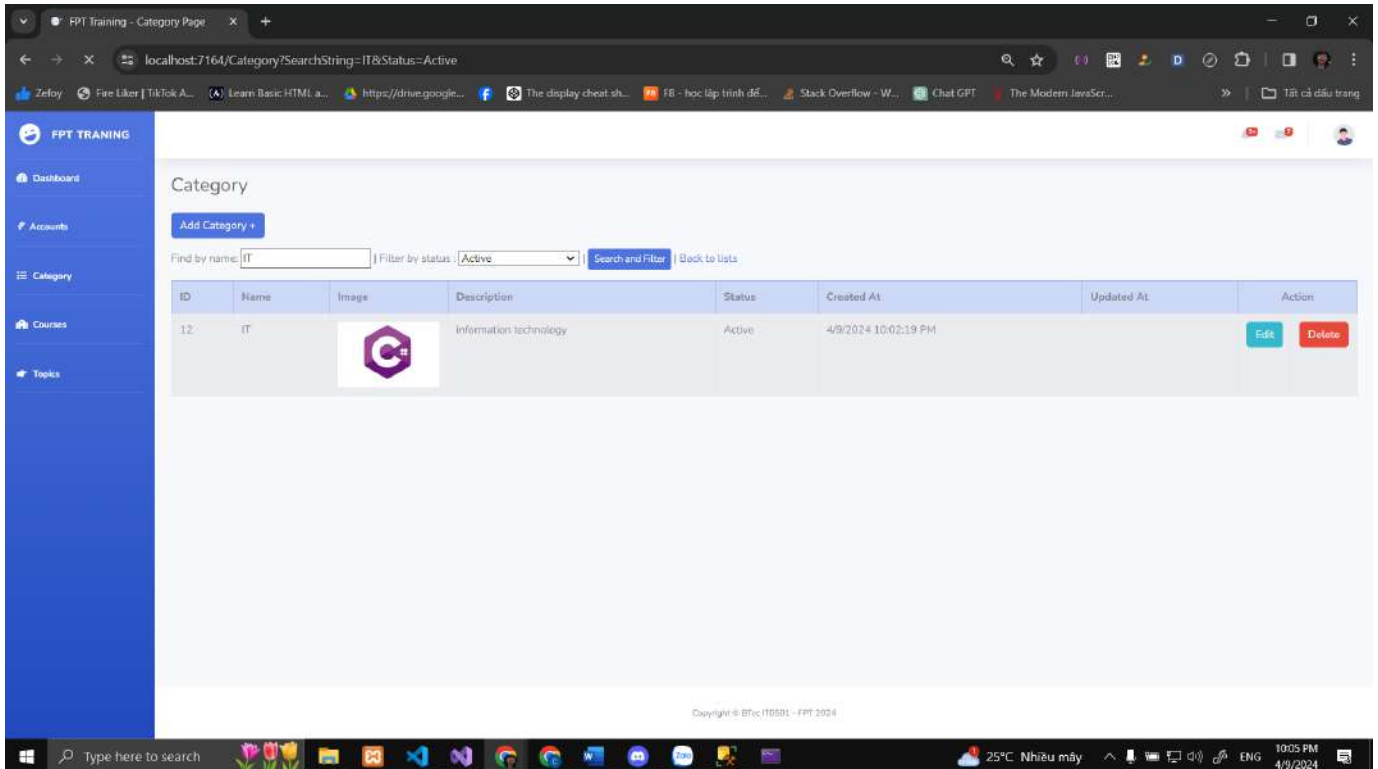
**Delete category successful:** when clicking the " delete category" button, the category deletion is successful.




When there are too many categories to search, click "find by name", select "Filter by status" and then press "Search and Filter" to display the content and images of the Category you are searching for.



It will display the information you are looking for

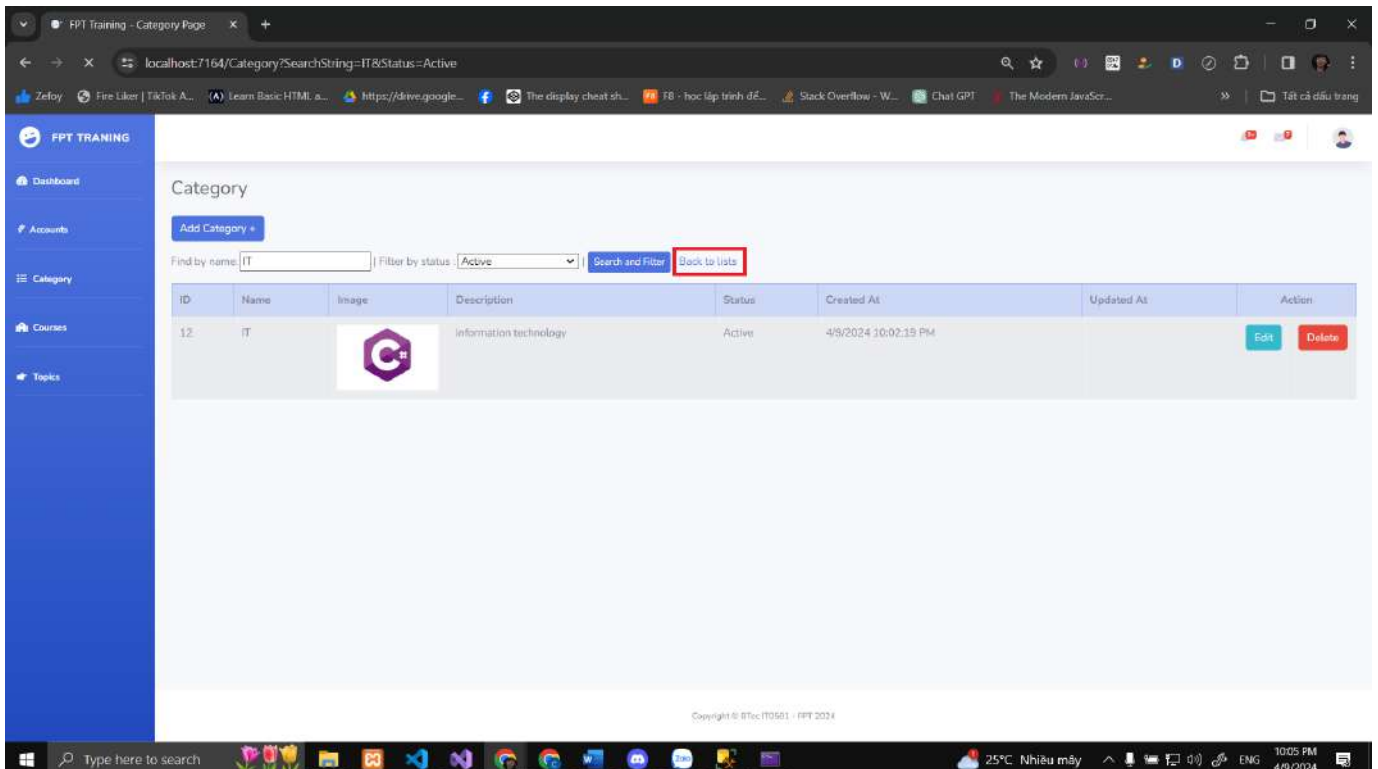


The screenshot shows a web browser window with the URL `localhost:7164/Category?SearchString=IT&Status=Active`. The page displays a table of categories with the following data:

ID	Name	Image	Description	Status	Created At	Updated At	Action
12	IT		Information technology	Active	4/9/2024 10:02:19 PM		<a href="#">Edit</a> <a href="#">Delete</a>

The page also includes a sidebar with navigation links: Dashboard, Accounts, Category, Courses, and Topics. The 'Category' link is currently selected. At the bottom of the page, there is a copyright notice: "Copyright © BTEC IT0501 - FPT 2024".

If you want to return to the Category home page, click "Back to list"

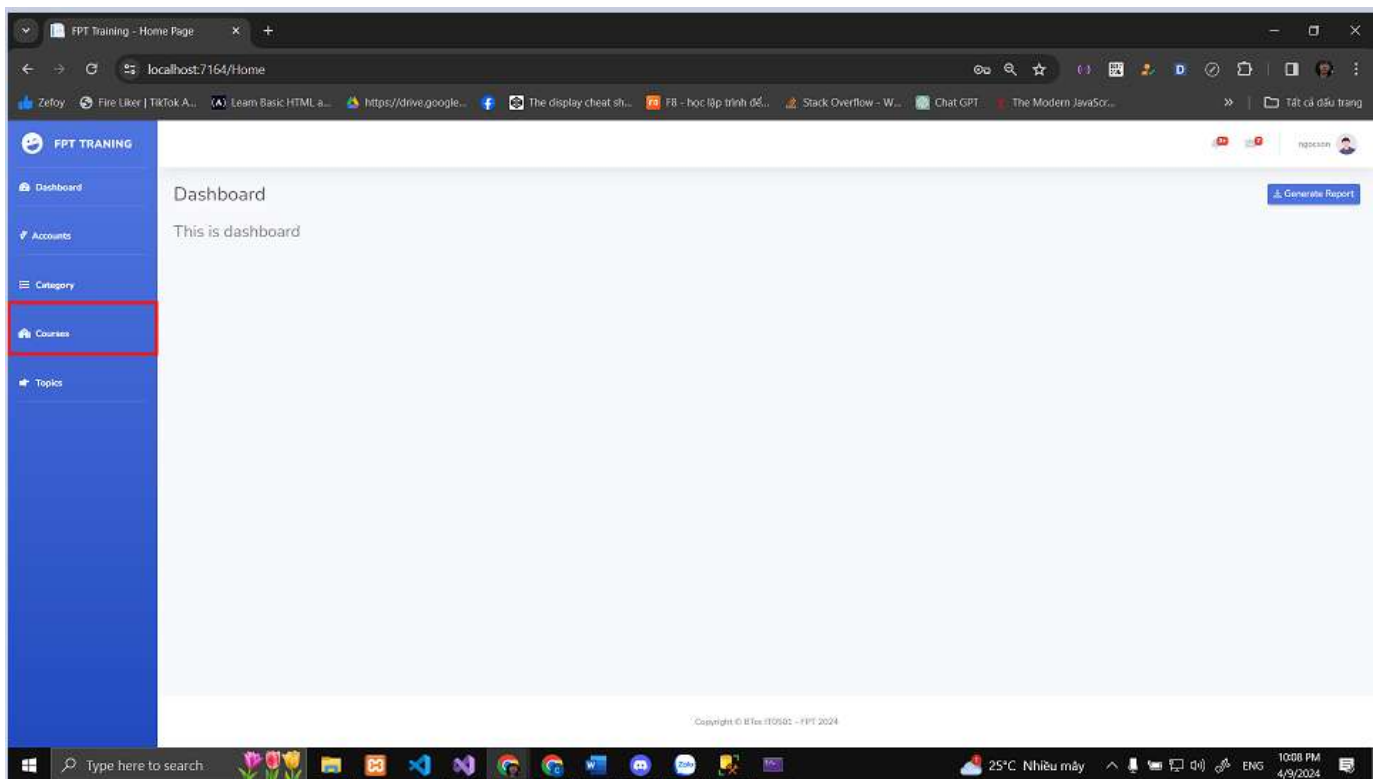


This screenshot is identical to the previous one, but with the "Back to list" link in the search filters area highlighted with a red box. The link is located next to the "Search and Filter" button. The table of categories remains the same.

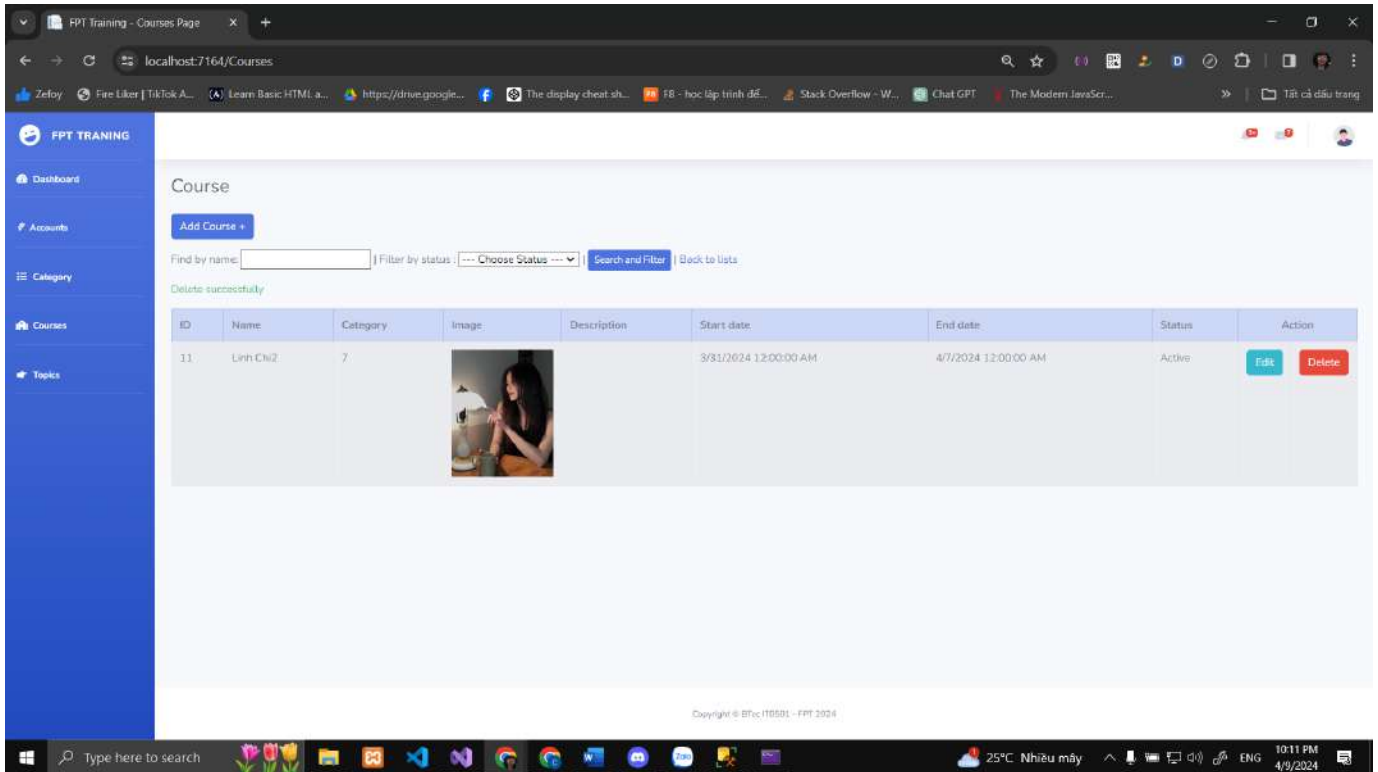


### 4.3. Course


When you click on "Course", it will display a course for you to add, edit, delete and display the newly added products.



This is the category "Course" displayed

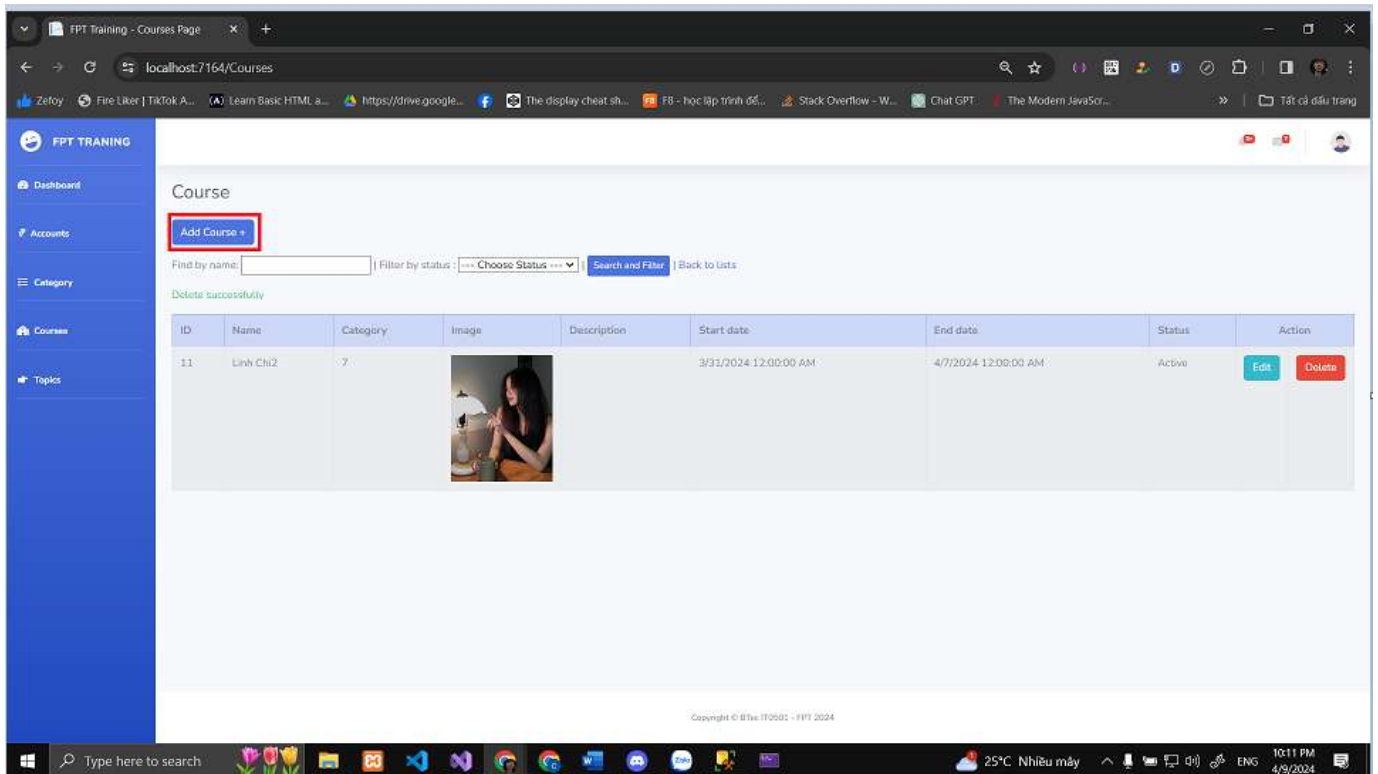


The screenshot shows a web application interface for managing courses. The left sidebar contains navigation links: Dashboard, Accounts, Category, Courses, and Topics. The main content area is titled "Course" and includes an "Add Course +" button. Below this is a search bar with "Find by name:" and a filter dropdown set to "Choose Status". A "Delete successfully" message is displayed. A table lists the following course:

ID	Name	Category	Image	Description	Start date	End date	Status	Action
11	Linh Chi2	7			3/31/2024 12:00:00 AM	4/7/2024 12:00:00 AM	Active	<a href="#">Edit</a> <a href="#">Delete</a>

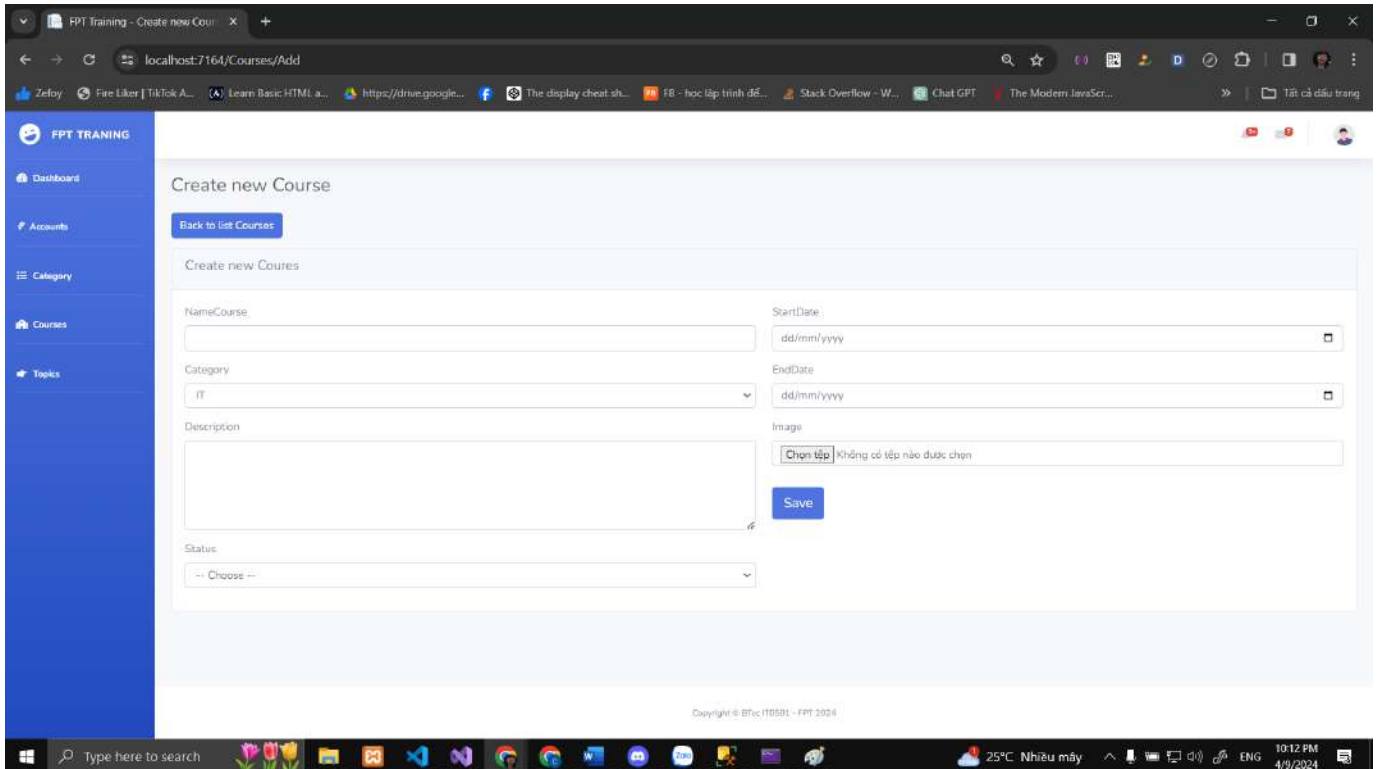
Copyright © BTEC IT0501 - FPT 2024

**Add:** Enable the addition of a new course



This screenshot is identical to the previous one, but the "Add Course +" button is highlighted with a red rectangular box to indicate the feature to be implemented.

Add the information you need to fill in "Course" and press the "Save" button

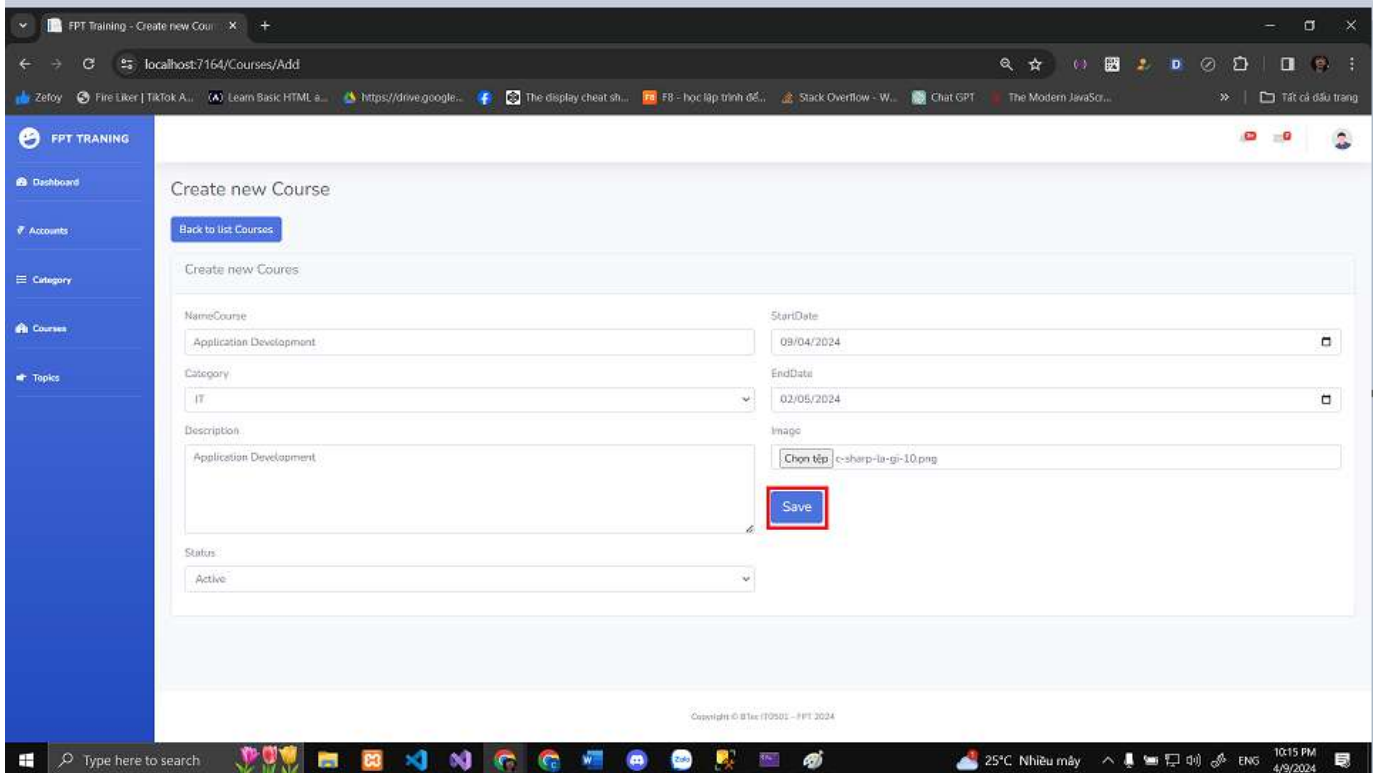


The screenshot shows a web browser window with the URL `localhost:7164/Courses/Add`. The page title is "Create new Course". On the left is a blue sidebar with the "FPT TRAINING" logo and a menu containing "Dashboard", "Accounts", "Category", "Courses", and "Topics". The main content area has a "Create new Course" heading and a "Back to list Courses" button. Below this is a form titled "Create new Courses" with the following fields:

- NameCourse**: A text input field.
- StartDate**: A date picker showing "dd/mm/yyyy".
- Category**: A dropdown menu with "IT" selected.
- EndDate**: A date picker showing "dd/mm/yyyy".
- Description**: A large text area.
- Image**: A field with a "Chọn tệp" (Choose file) button and the text "Không có tệp nào được chọn" (No files selected).
- Save**: A blue button.
- Status**: A dropdown menu with "-- Choose --" selected.

At the bottom of the page, there is a copyright notice: "Copyright © BTEC (TDS) - FPT 2024". The Windows taskbar at the bottom shows the date and time as 10:12 PM on 4/9/2024.

More information press the "Save" button



**Create new Course**

[Back to list Courses](#)

Create new Courses

NameCourse: Application Development StartDate: 09/04/2024

Category: IT EndDate: 02/05/2024

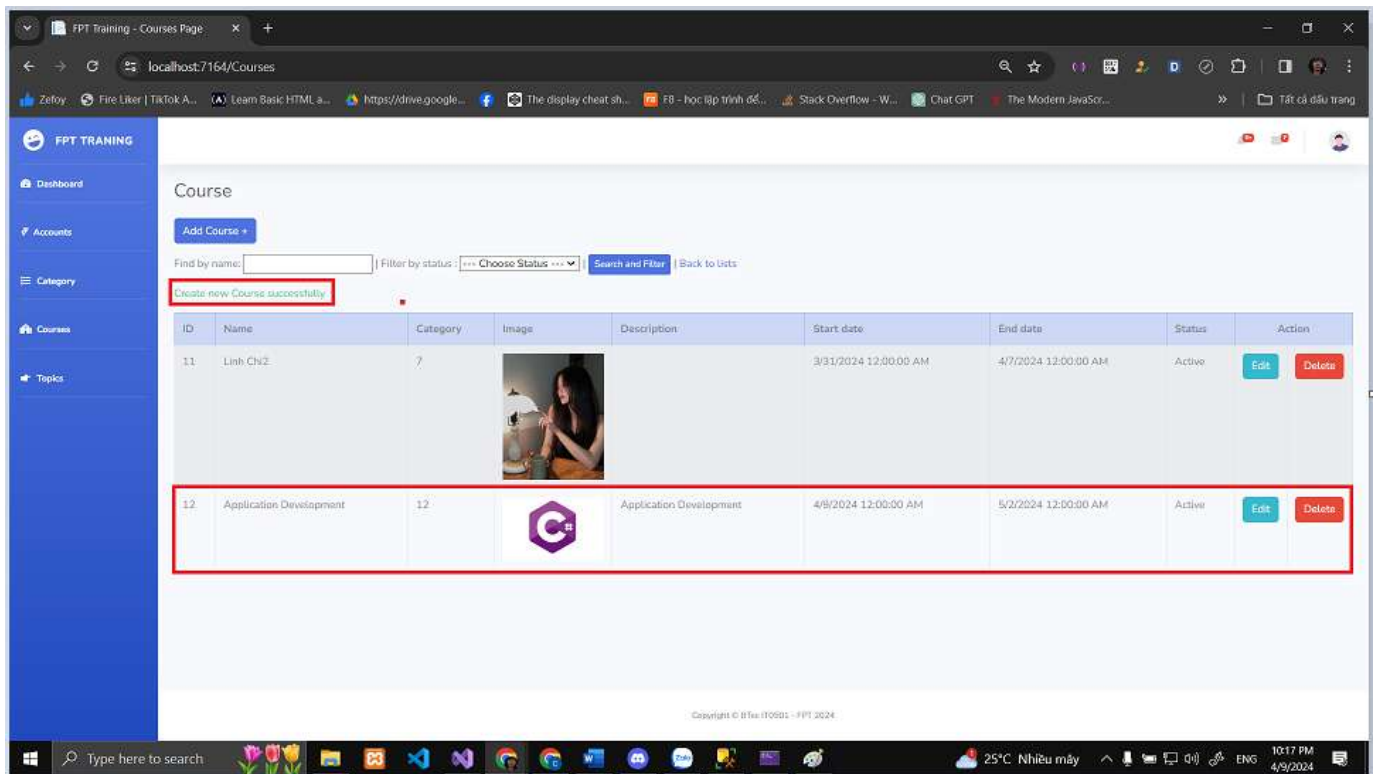
Description: Application Development Image: [Chon tệp](#) c-sharp-la-gi-10.png

Status: Active

**Save**

Copyright © BTeC IT0501 - FPT 2024

**Add course successful:** Upon clicking " add course" the save operation is successful





**Course**

[Add Course +](#)

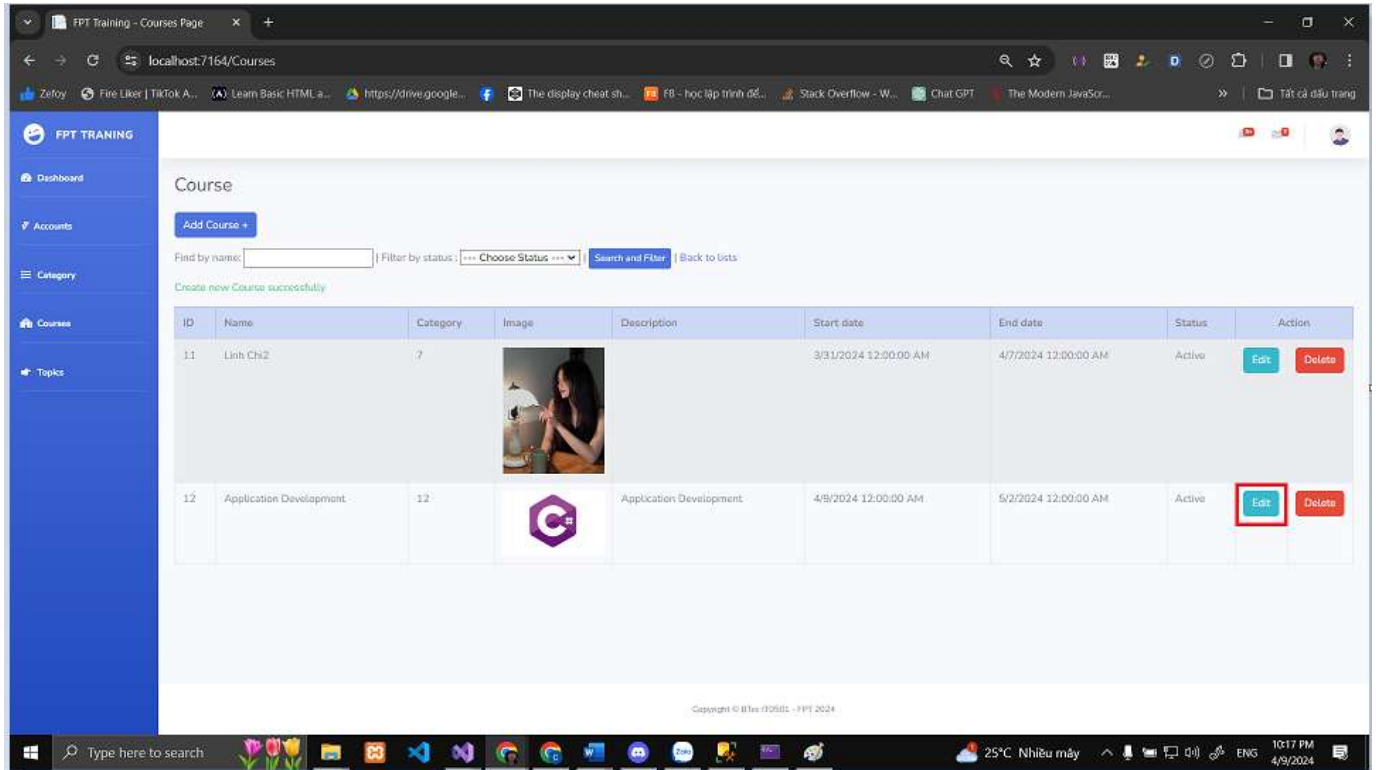
Find by name:  Filter by status: --- Choose Status --- [Search and Filter](#) [Back to lists](#)

Create new Course successfully



ID	Name	Category	Image	Description	Start date	End date	Status	Action
11	Linh Ch2	7			3/31/2024 12:00:00 AM	4/7/2024 12:00:00 AM	Active	<a href="#">Edit</a> <a href="#">Delete</a>
12	Application Development	12		Application Development	4/9/2024 12:00:00 AM	5/2/2024 12:00:00 AM	Active	<a href="#">Edit</a> <a href="#">Delete</a>

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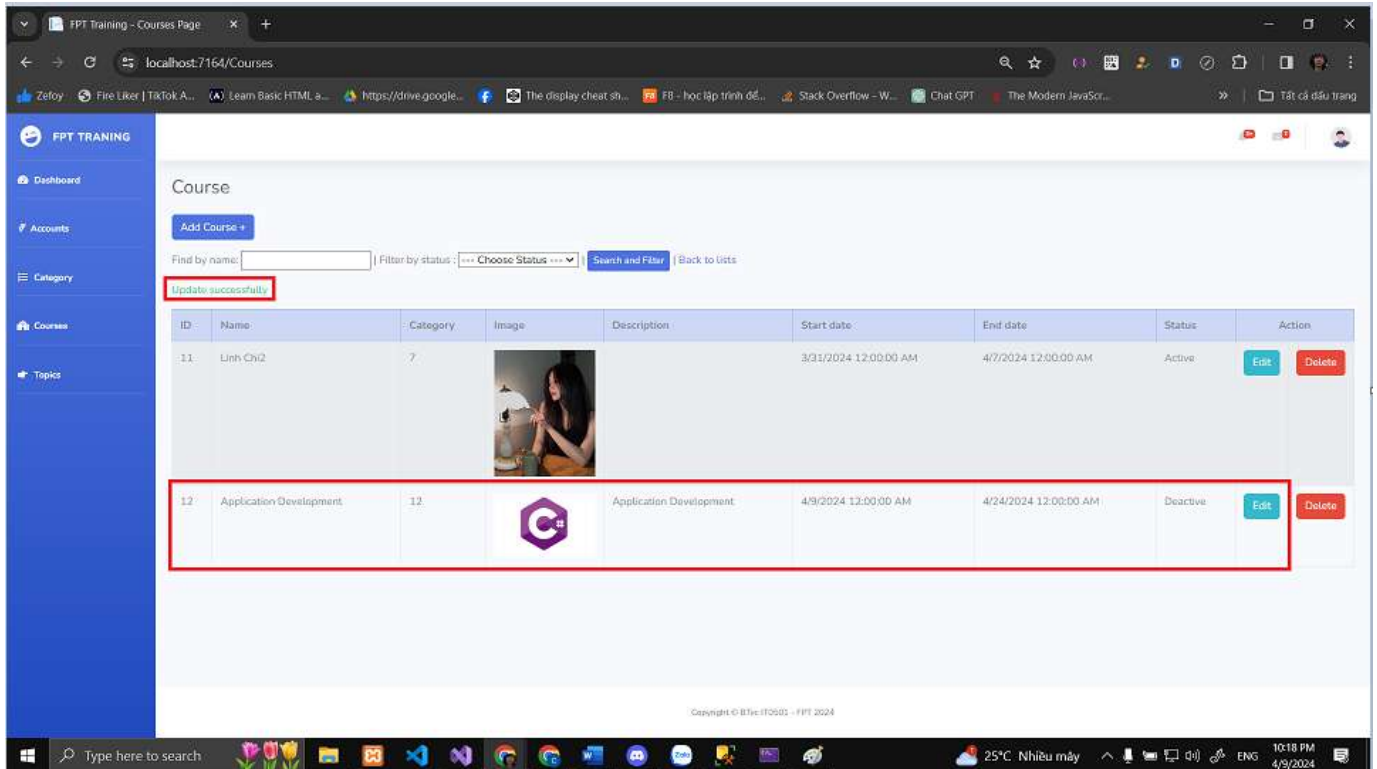
**Edit:** allow modifications to the selected CourseID





The screenshot shows a web application interface for managing courses. The left sidebar contains navigation links: Dashboard, Accounts, Category, Courses, and Topics. The main content area is titled 'Course' and includes an 'Add Course +' button. Below this is a search bar with a 'Find by name:' field, a 'Filter by status:' dropdown menu set to 'Choose Status', and a 'Search and Filter' button. A green message 'Create new Course successfully' is displayed. The course list is presented in a table with columns: ID, Name, Category, Image, Description, Start date, End date, Status, and Action. Two courses are listed: ID 11 (Linh Chi2) and ID 12 (Application Development). The 'Edit' button for course ID 12 is highlighted with a red box.

ID	Name	Category	Image	Description	Start date	End date	Status	Action
11	Linh Chi2	7			3/31/2024 12:00:00 AM	4/7/2024 12:00:00 AM	Active	<a href="#">Edit</a> <a href="#">Delete</a>
12	Application Development	12		Application Development	4/8/2024 12:00:00 AM	5/2/2024 12:00:00 AM	Active	<a href="#">Edit</a> <a href="#">Delete</a>

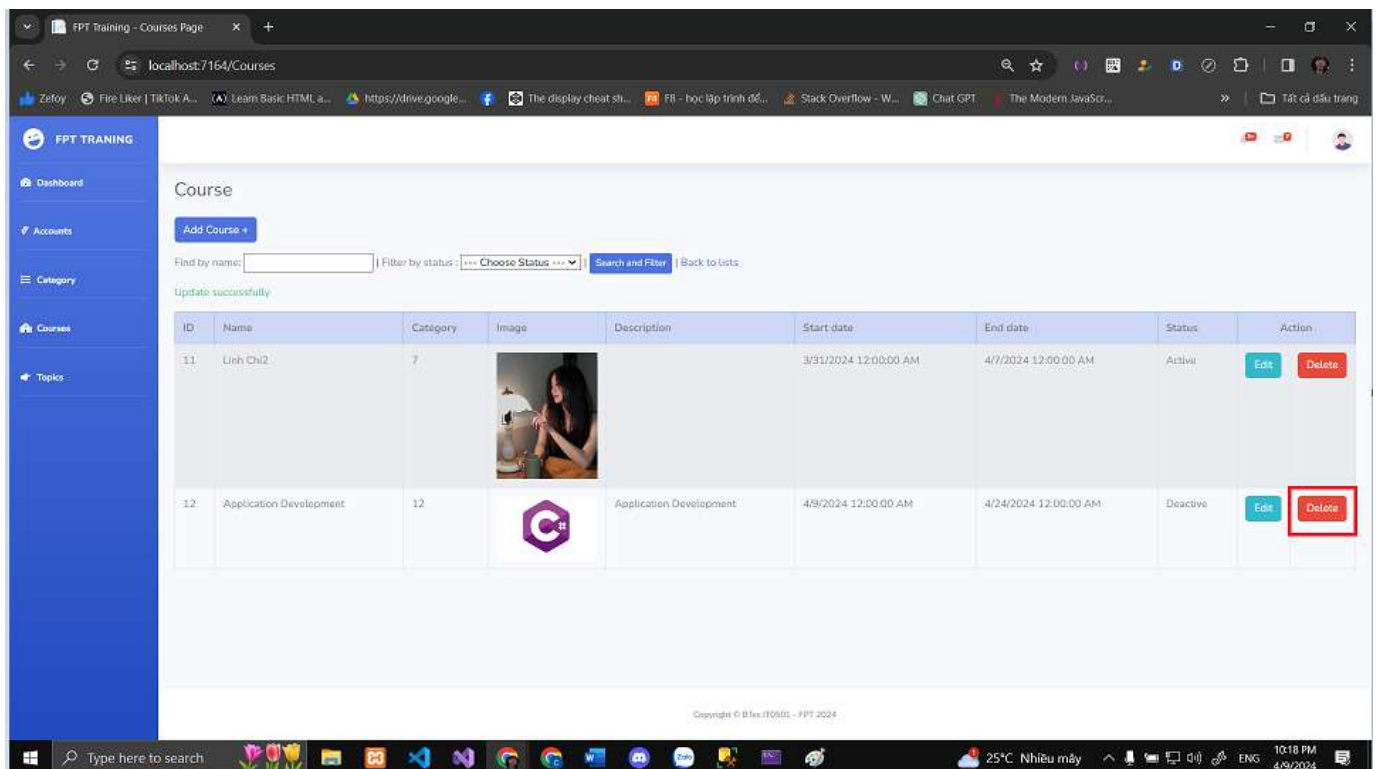
**Edit Course successful:** when clicking the " Update Course" button, the course update is successful





The screenshot shows the 'FPT TRAINING' interface with a sidebar menu containing Dashboard, Accounts, Category, Courses, and Topics. The main content area is titled 'Course' and includes an 'Add Course +' button, a search bar, and a status filter dropdown. A red box highlights the message 'Update successfully!'. Below this is a table of courses with columns: ID, Name, Category, Image, Description, Start date, End date, Status, and Action. The table contains two rows: ID 11 (Linh Chi2, Category 7, Active) and ID 12 (Application Development, Category 12, Deactive). The 'Delete' button for ID 12 is highlighted with a red box.

ID	Name	Category	Image	Description	Start date	End date	Status	Action
11	Linh Chi2	7			3/31/2024 12:00:00 AM	4/7/2024 12:00:00 AM	Active	<a href="#">Edit</a> <a href="#">Delete</a>
12	Application Development	12		Application Development	4/9/2024 12:00:00 AM	4/24/2024 12:00:00 AM	Deactive	<a href="#">Edit</a> <a href="#">Delete</a>

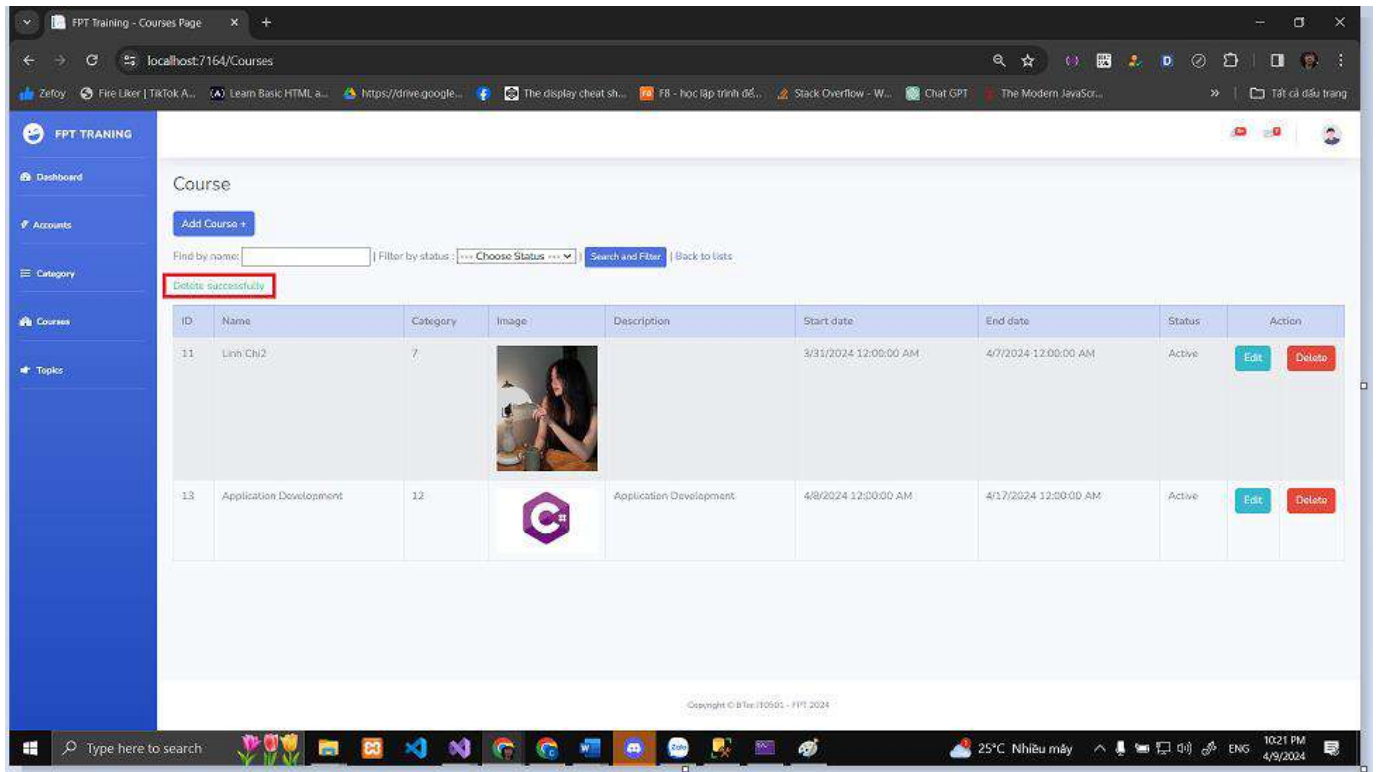
**Delete:** Provide the capability to remove the selected CourseID.





This screenshot is similar to the previous one, showing the 'FPT TRAINING' interface. The 'Update successfully!' message is still present. The table of courses is the same. In this view, the 'Delete' button for Course ID 12 is highlighted with a red box, indicating the action to be performed.

ID	Name	Category	Image	Description	Start date	End date	Status	Action
11	Linh Chi2	7			3/31/2024 12:00:00 AM	4/7/2024 12:00:00 AM	Active	<a href="#">Edit</a> <a href="#">Delete</a>
12	Application Development	12		Application Development	4/9/2024 12:00:00 AM	4/24/2024 12:00:00 AM	Deactive	<a href="#">Edit</a> <a href="#">Delete</a>

**Delete category successful:** when clicking the " delete category" button, the category deletion is successful.



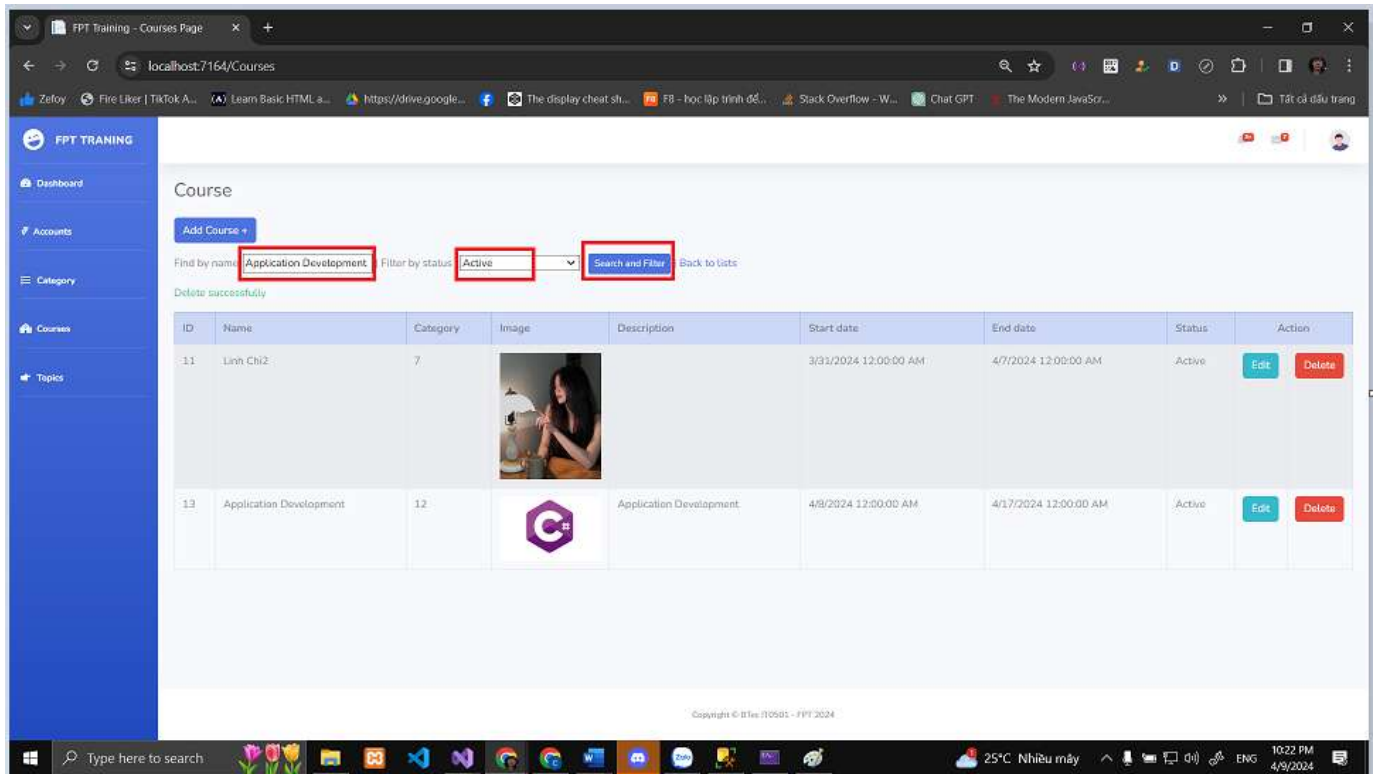
The screenshot shows a web application interface for "FPT TRAINING" with a sidebar menu containing Dashboard, Accounts, Category, Courses, and Topics. The main content area is titled "Course" and includes a search bar with "Find by name:" and a filter dropdown set to "Choose Status". A red box highlights the message "Delete successfully". Below this is a table with the following data:

ID	Name	Category	Image	Description	Start date	End date	Status	Action
11	Linh Chi2	7			3/31/2024 12:00:00 AM	4/7/2024 12:00:00 AM	Active	<a href="#">Edit</a> <a href="#">Delete</a>
13	Application Development	12		Application Development	4/8/2024 12:00:00 AM	4/17/2024 12:00:00 AM	Active	<a href="#">Edit</a> <a href="#">Delete</a>

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When there are too many courses to search, click "find by name", select "Filter by status" and then press "Search and Filter" to display the content and images of the Course you are searching for.







Course

Add Course +

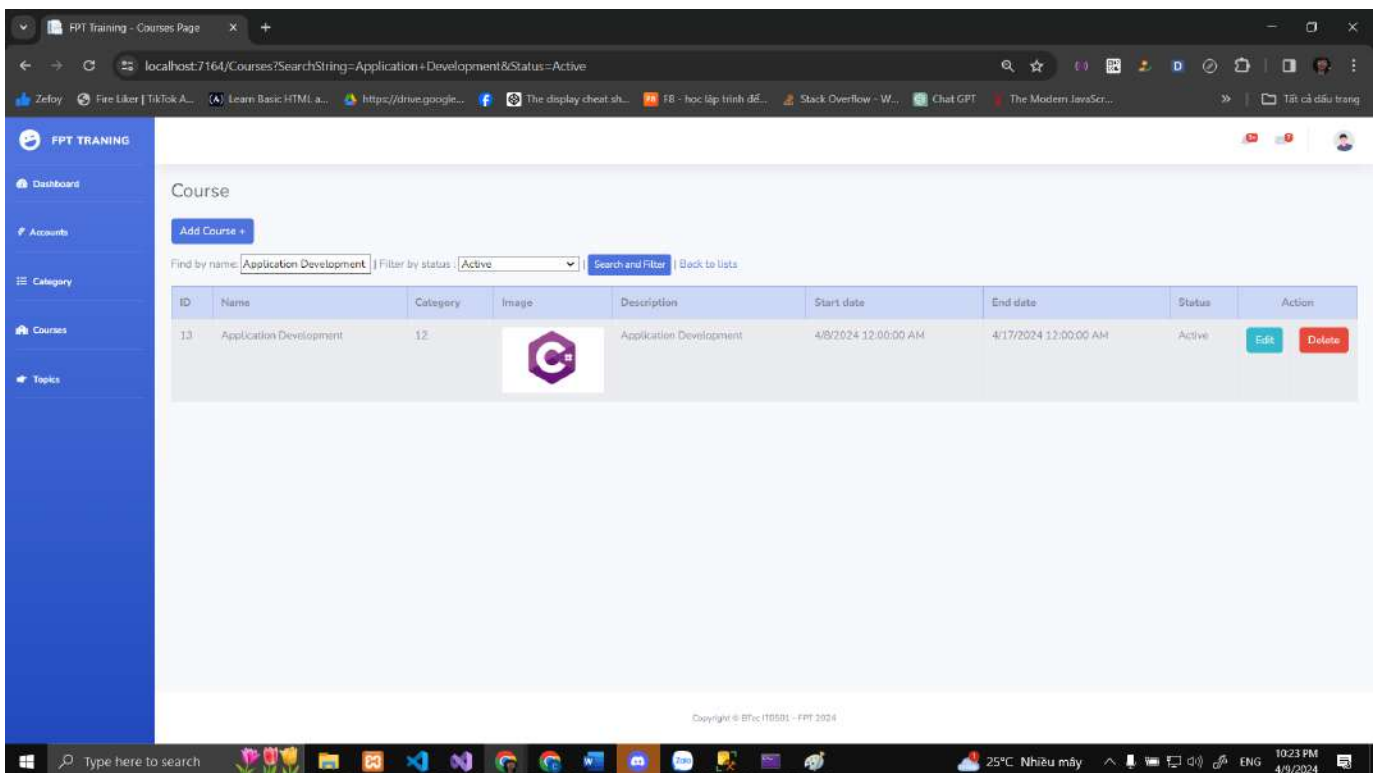
Find by name: Application Development Filter by status: Active Search and Filter [Back to lists](#)

Delete successfully

ID	Name	Category	Image	Description	Start date	End date	Status	Action
11	Linh Chi2	7			3/31/2024 12:00:00 AM	4/7/2024 12:00:00 AM	Active	<a href="#">Edit</a> <a href="#">Delete</a>
13	Application Development	12		Application Development	4/8/2024 12:00:00 AM	4/17/2024 12:00:00 AM	Active	<a href="#">Edit</a> <a href="#">Delete</a>

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It will display the information you are looking for



Course

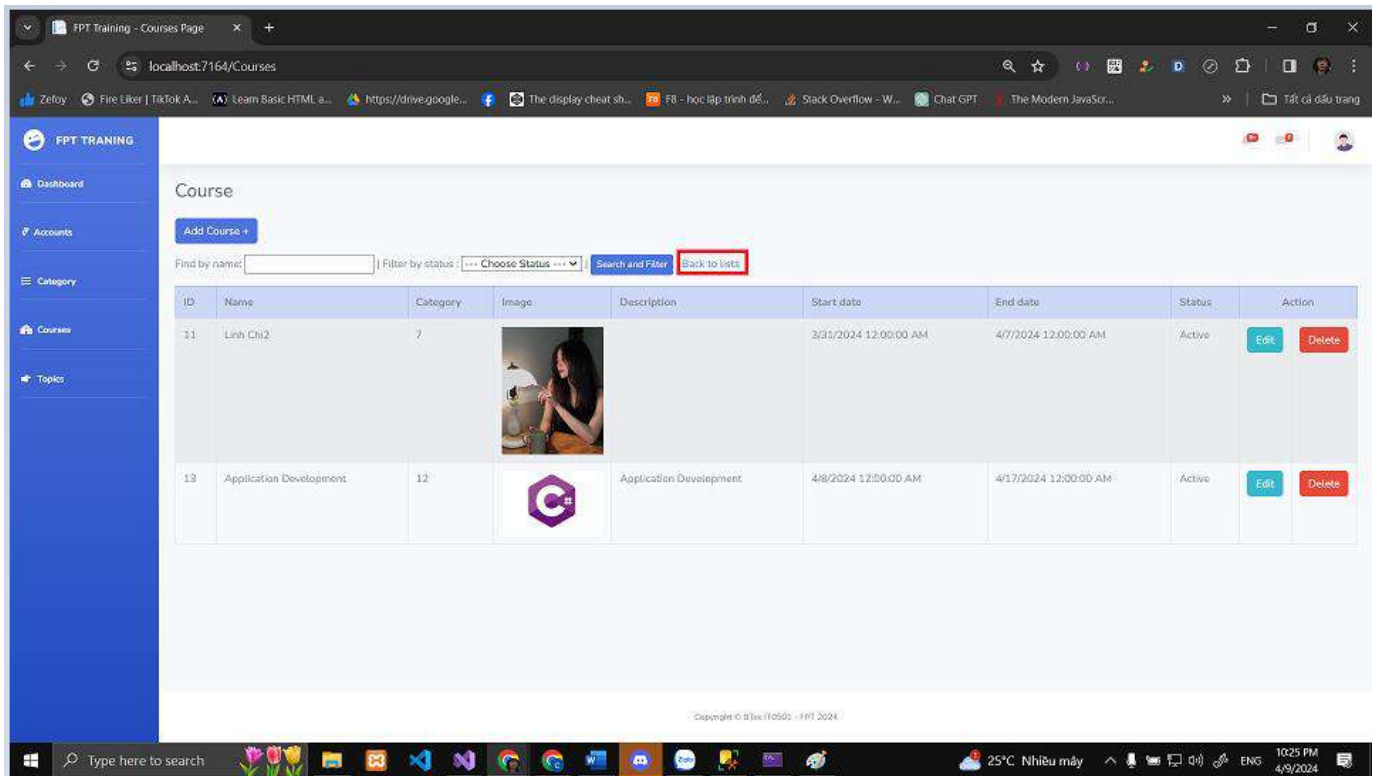
Add Course +

Find by name: Application Development Filter by status: Active Search and Filter [Back to lists](#)



ID	Name	Category	Image	Description	Start date	End date	Status	Action
13	Application Development	12		Application Development	4/8/2024 12:00:00 AM	4/17/2024 12:00:00 AM	Active	<a href="#">Edit</a> <a href="#">Delete</a>

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If you want to return to the Course home page, click "Back to list"



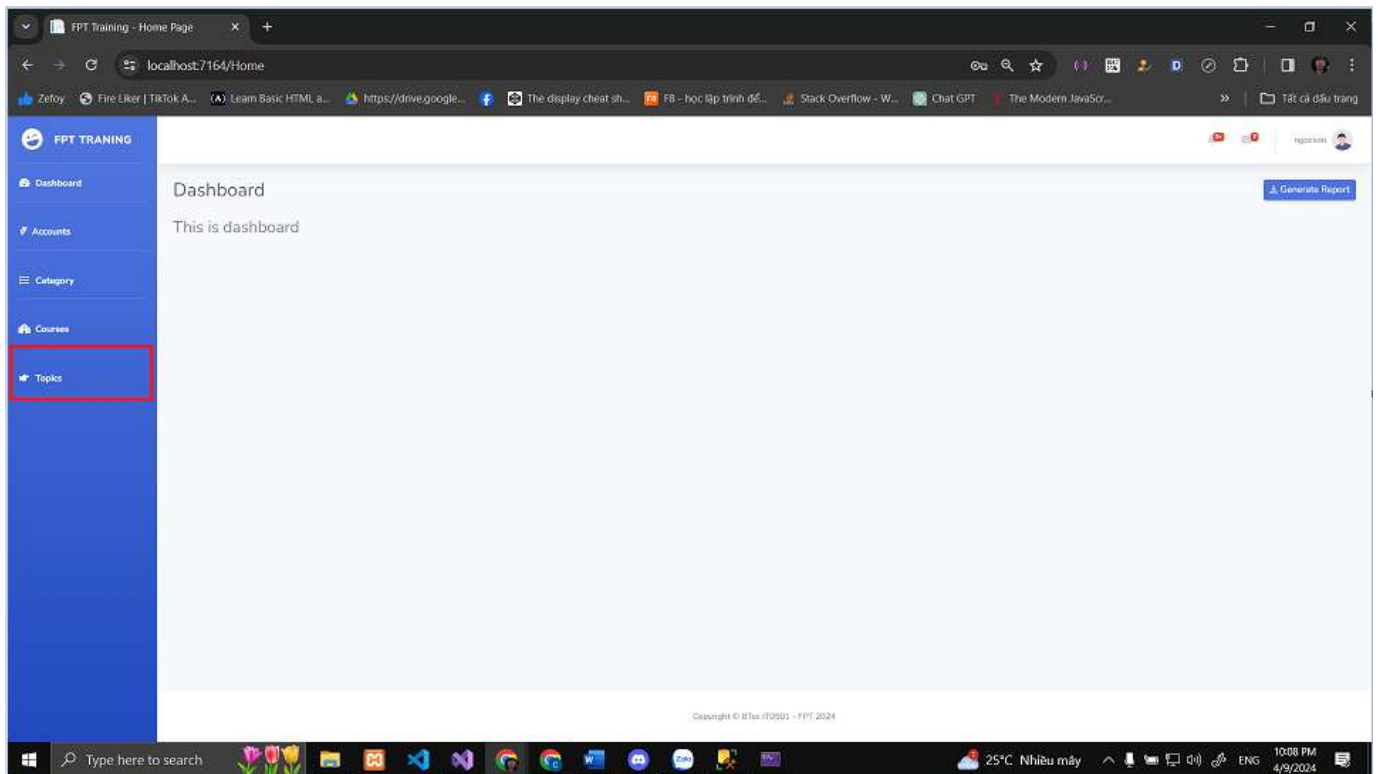
The screenshot shows a web browser window displaying the 'FPT Training - Courses Page'. The page has a blue sidebar with navigation links: Dashboard, Accounts, Category, Courses, and Topics. The main content area is titled 'Course' and includes an 'Add Course +' button. Below this, there is a search bar and a filter dropdown set to 'Choose Status'. A 'Back to list' link is highlighted with a red box. The main content area displays a table of courses with the following data:

ID	Name	Category	Image	Description	Start date	End date	Status	Action
11	Linh Chi2	7			3/31/2024 12:00:00 AM	4/7/2024 12:00:00 AM	Active	<a href="#">Edit</a> <a href="#">Delete</a>
13	Application Development	12		Application Development	4/8/2024 12:00:00 AM	4/17/2024 12:00:00 AM	Active	<a href="#">Edit</a> <a href="#">Delete</a>

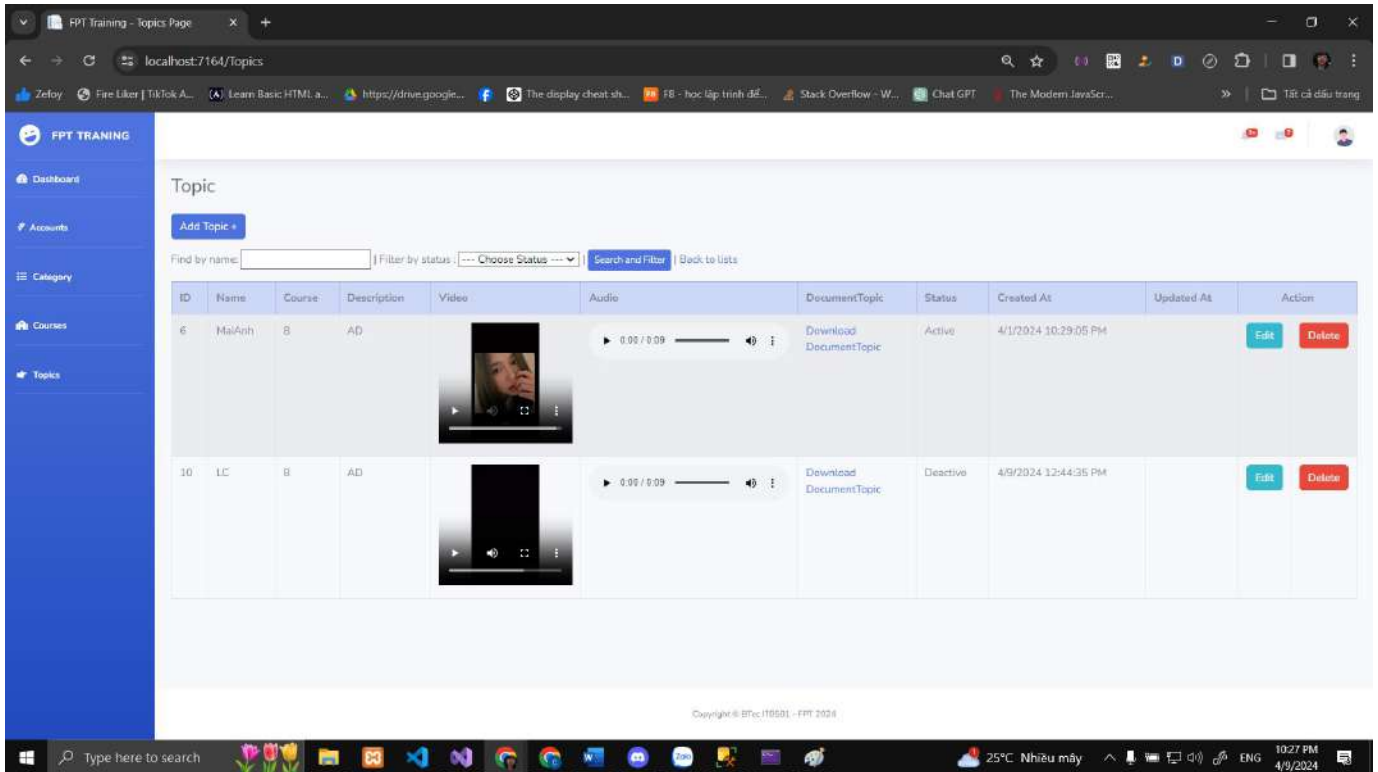
The footer of the page shows the copyright notice: 'Copyright © BTEC IT0502 - FPT 2024'.

#### 4.4. Topic

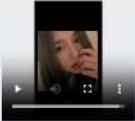



When you click on "Topic", it will display a category for you to add, edit, delete and display the newly added products.



This is the Topic "Topic" displayed

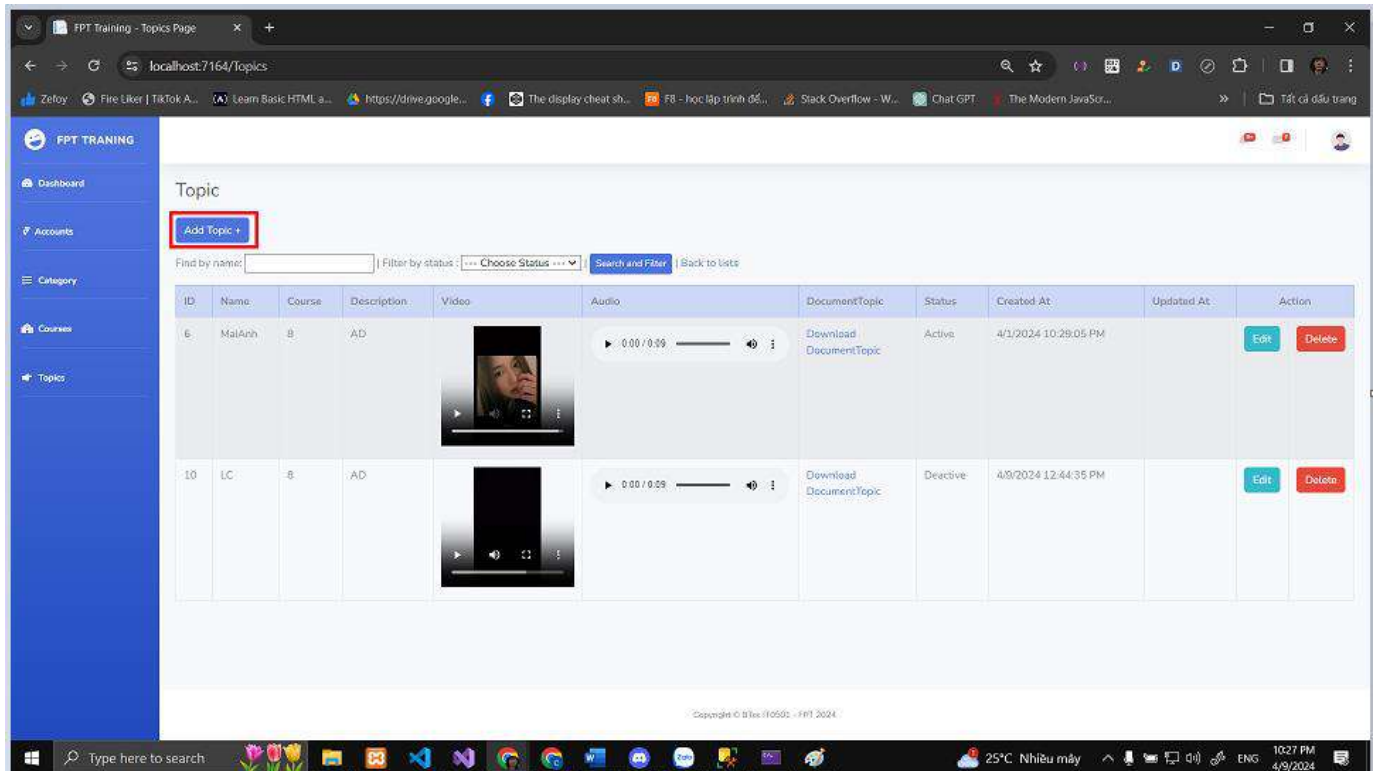


The screenshot shows a web application titled "FPT TRAINING" with a sidebar menu containing "Dashboard", "Accounts", "Category", "Courses", and "Topics". The main content area is titled "Topic" and includes a search bar, a filter dropdown, and a "Search and Filter" button. Below this is a table with the following data:

ID	Name	Course	Description	Video	Audio	DocumentTopic	Status	Created At	Updated At	Action
6	MaAnh	8	AD			Download DocumentTopic	Active	4/1/2024 10:29:05 PM		<a href="#">Edit</a> <a href="#">Delete</a>
10	LC	8	AD			Download DocumentTopic	Deactive	4/9/2024 12:44:35 PM		<a href="#">Edit</a> <a href="#">Delete</a>

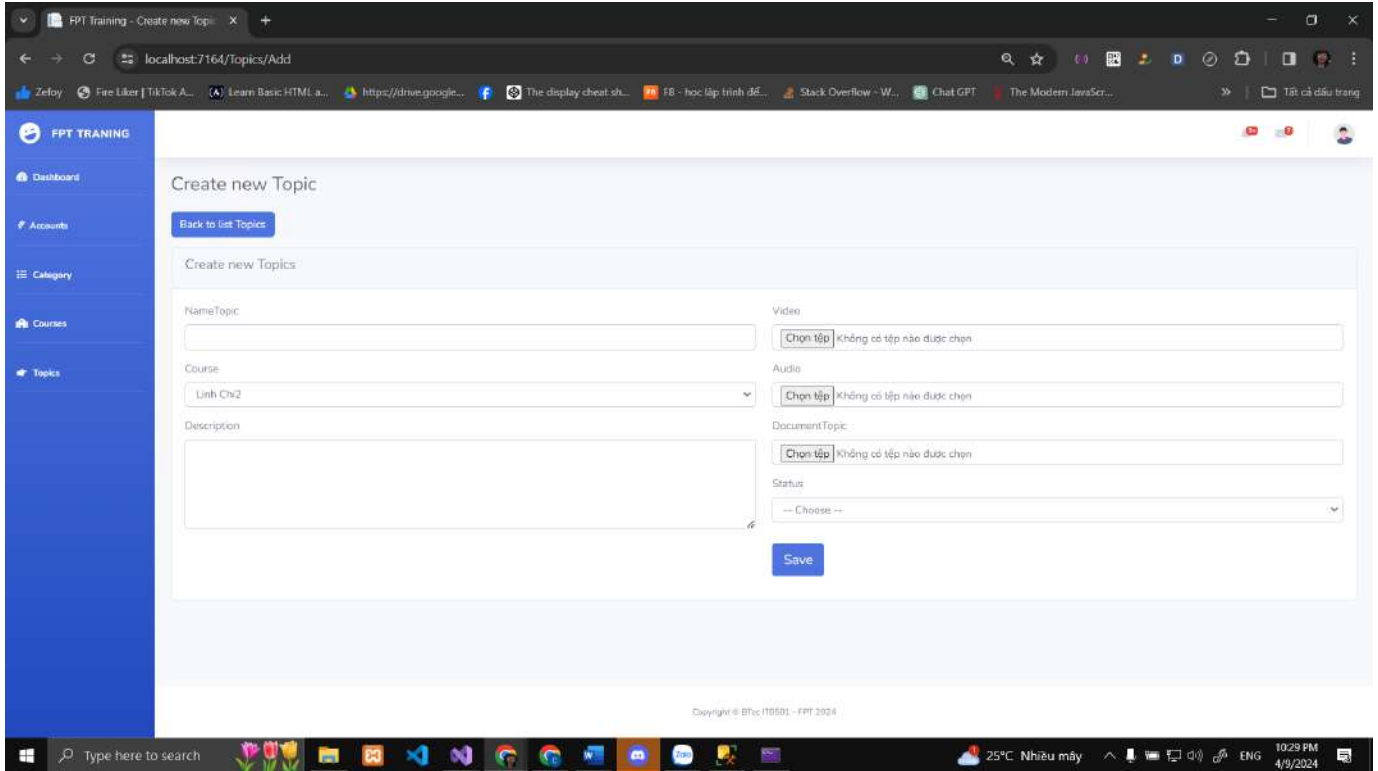
Copyright © BTEC (10501) - FPT 2024

**Add:** Enable the addition of a new topic



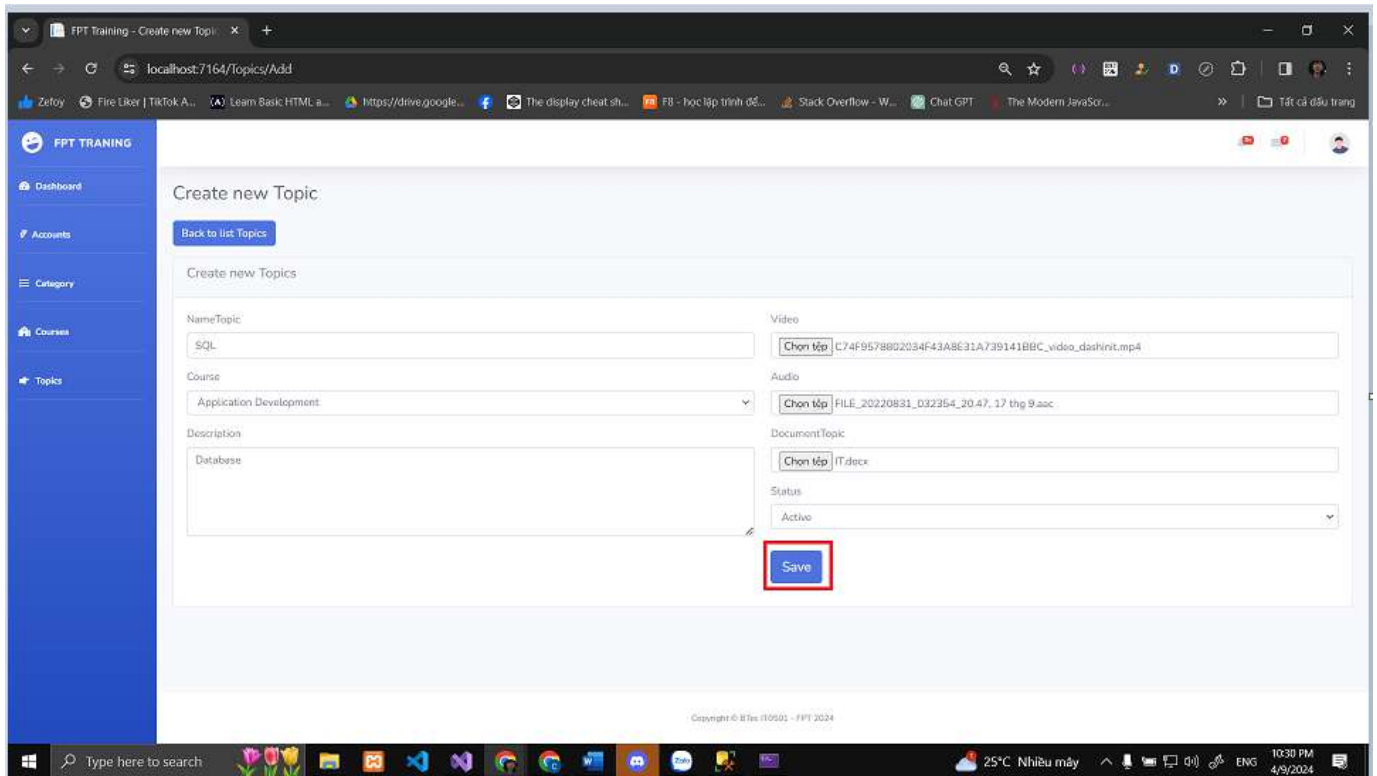
This screenshot is identical to the one above, but with a red rectangular box highlighting the "Add Topic +" button located at the top left of the "Topic" section.

Add the information you need to fill in "Topic" and press the "Save" button



The screenshot shows a web browser window with the URL `localhost:7164/Topics/Add`. The page title is "Create new Topic". On the left is a blue sidebar with the "FPT TRAINING" logo and navigation links: Dashboard, Accounts, Category, Courses, and Topics. The main content area has a "Back to list Topics" button and a "Create new Topics" section. This section contains several input fields: "NameTopic" (text input), "Video" (dropdown menu with "Chọn tệp" and "Không có tệp nào được chọn"), "Course" (dropdown menu with "Chọn tệp" and "Không có tệp nào được chọn"), "Audio" (dropdown menu with "Chọn tệp" and "Không có tệp nào được chọn"), "Description" (text area), "DocumentTopic" (dropdown menu with "Chọn tệp" and "Không có tệp nào được chọn"), and "Status" (dropdown menu with "-- Choose --"). A blue "Save" button is located at the bottom right of the form. The footer of the page reads "Copyright © BTEC (10501) - FPT 2024". The Windows taskbar at the bottom shows the time as 10:29 PM on 4/9/2024.

More information press the "Save" button



**FPT TRAINING**

Dashboard

Accounts

Category

Courses

Topics

### Create new Topic

[Back to list Topics](#)

Create new Topics

NameTopic:

Course:

Description:

Video:

Audio:

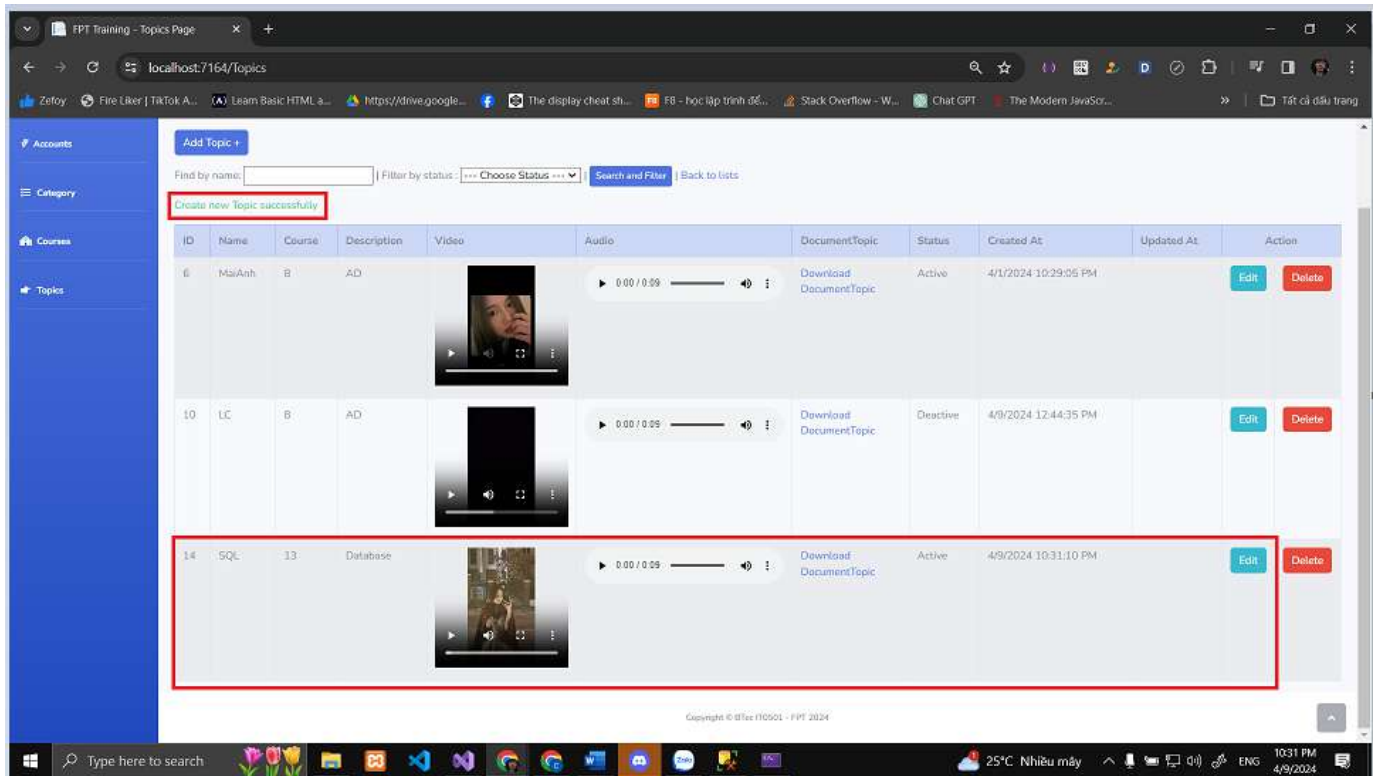
DocumentTopic:

Status:


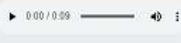




**Save**

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**Add Topic successful:** Upon clicking " add topic" the save operation is successful

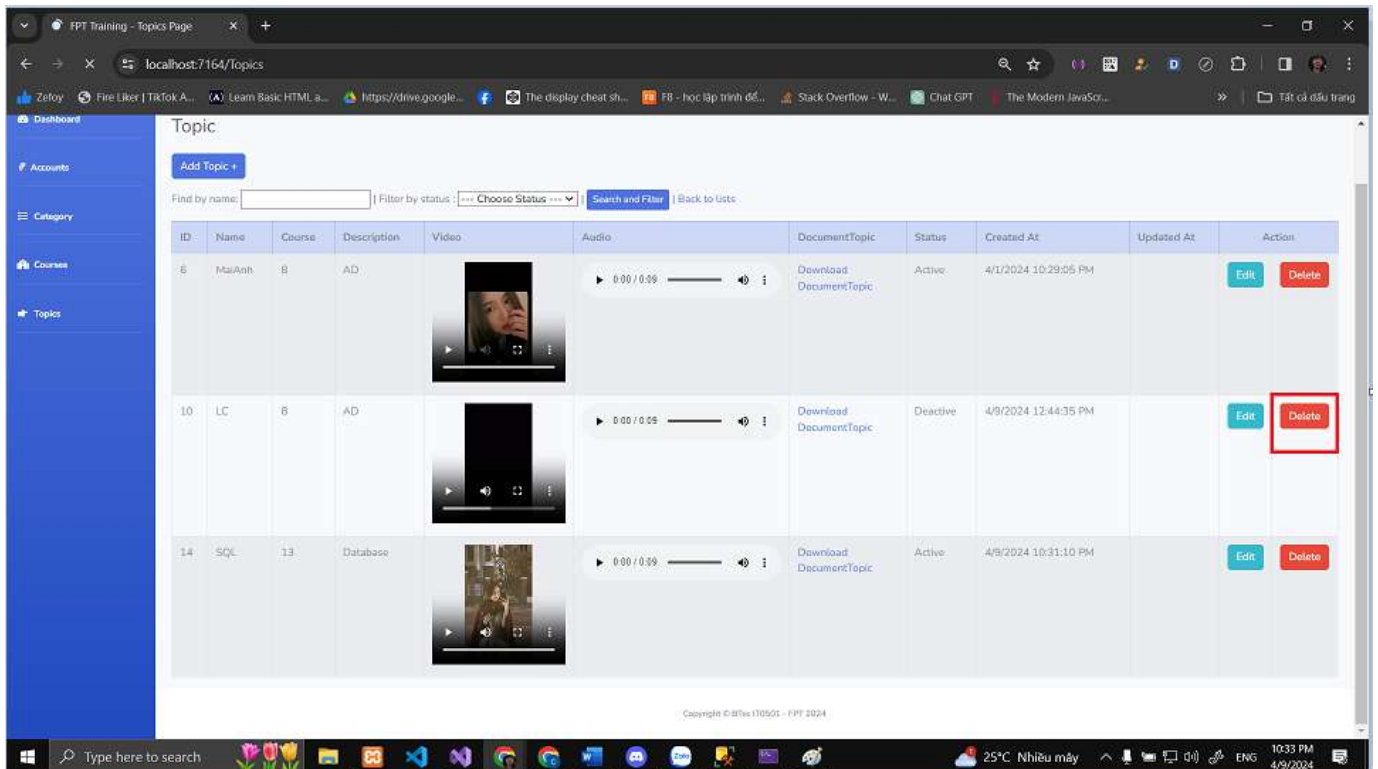


The screenshot shows a web application interface for managing topics. A sidebar on the left contains navigation links: Accounts, Category, Courses, and Topics. The main content area has a header with an 'Add Topic +' button, a search bar, and a status filter dropdown. A green message box at the top left of the table area states 'Create new Topic successfully'. Below this is a table with the following data:







ID	Name	Course	Description	Video	Audio	DocumentTopic	Status	Created At	Updated At	Action
6	MaiAnh	B	AD			<a href="#">Download DocumentTopic</a>	Active	4/1/2024 10:29:05 PM		<a href="#">Edit</a> <a href="#">Delete</a>
10	LC	B	AD			<a href="#">Download DocumentTopic</a>	Deactive	4/9/2024 12:44:35 PM		<a href="#">Edit</a> <a href="#">Delete</a>
14	SQL	13	Database			<a href="#">Download DocumentTopic</a>	Active	4/9/2024 10:31:10 PM		<a href="#">Edit</a> <a href="#">Delete</a>

The bottom of the screen shows a Windows taskbar with the date and time 10:31 PM 4/9/2024.

**Delete:** Provide the capability to remove the selected TopicID.



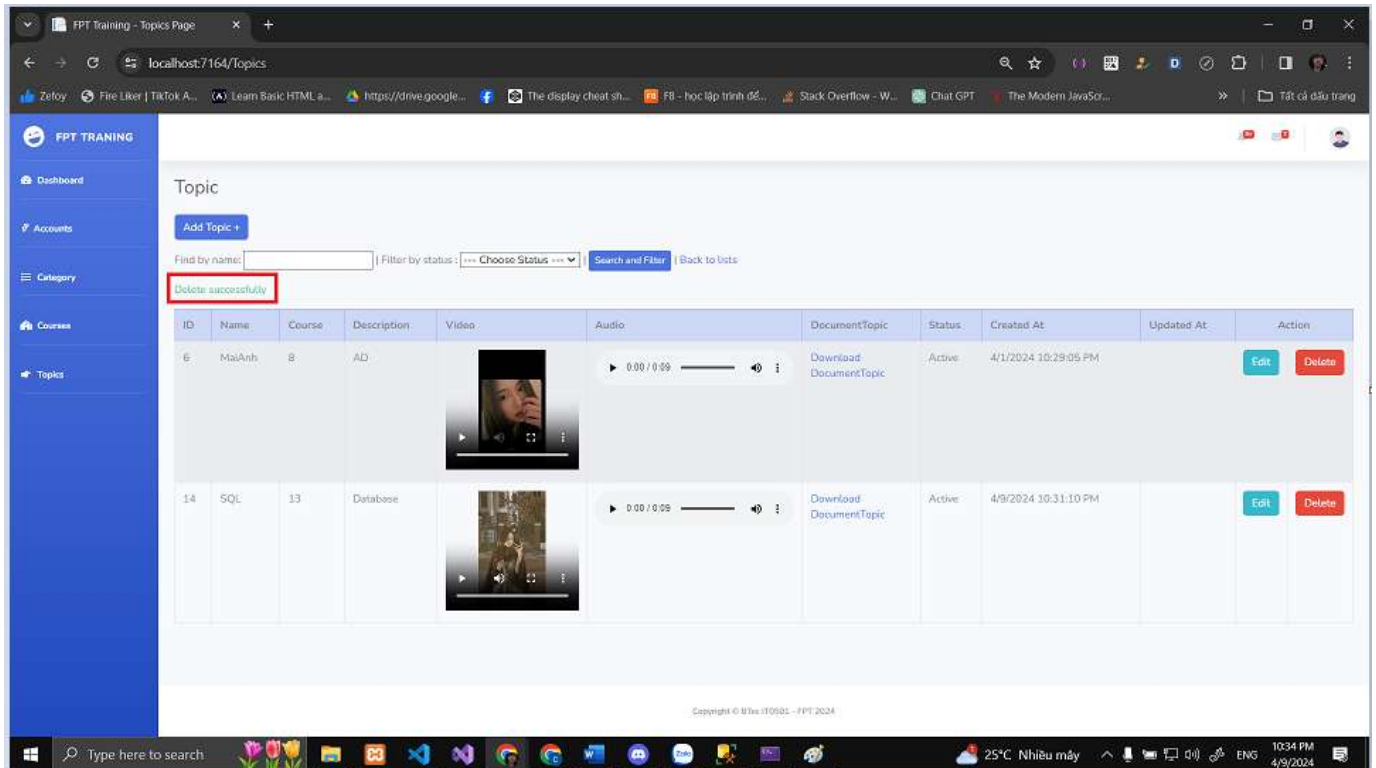
This screenshot shows the same interface as the previous one, but with the 'Delete' button for Topic ID 10 highlighted with a red box. The table data remains the same:

ID	Name	Course	Description	Video	Audio	DocumentTopic	Status	Created At	Updated At	Action
6	MaiAnh	B	AD			<a href="#">Download DocumentTopic</a>	Active	4/1/2024 10:29:05 PM		<a href="#">Edit</a> <a href="#">Delete</a>
10	LC	B	AD			<a href="#">Download DocumentTopic</a>	Deactive	4/9/2024 12:44:35 PM		<a href="#">Edit</a> <a href="#">Delete</a>
14	SQL	13	Database			<a href="#">Download DocumentTopic</a>	Active	4/9/2024 10:31:10 PM		<a href="#">Edit</a> <a href="#">Delete</a>





The Windows taskbar at the bottom shows the date and time 10:33 PM 4/9/2024.



**Delete category successful:** when clicking the " delete category" button, the category deletion is successful.

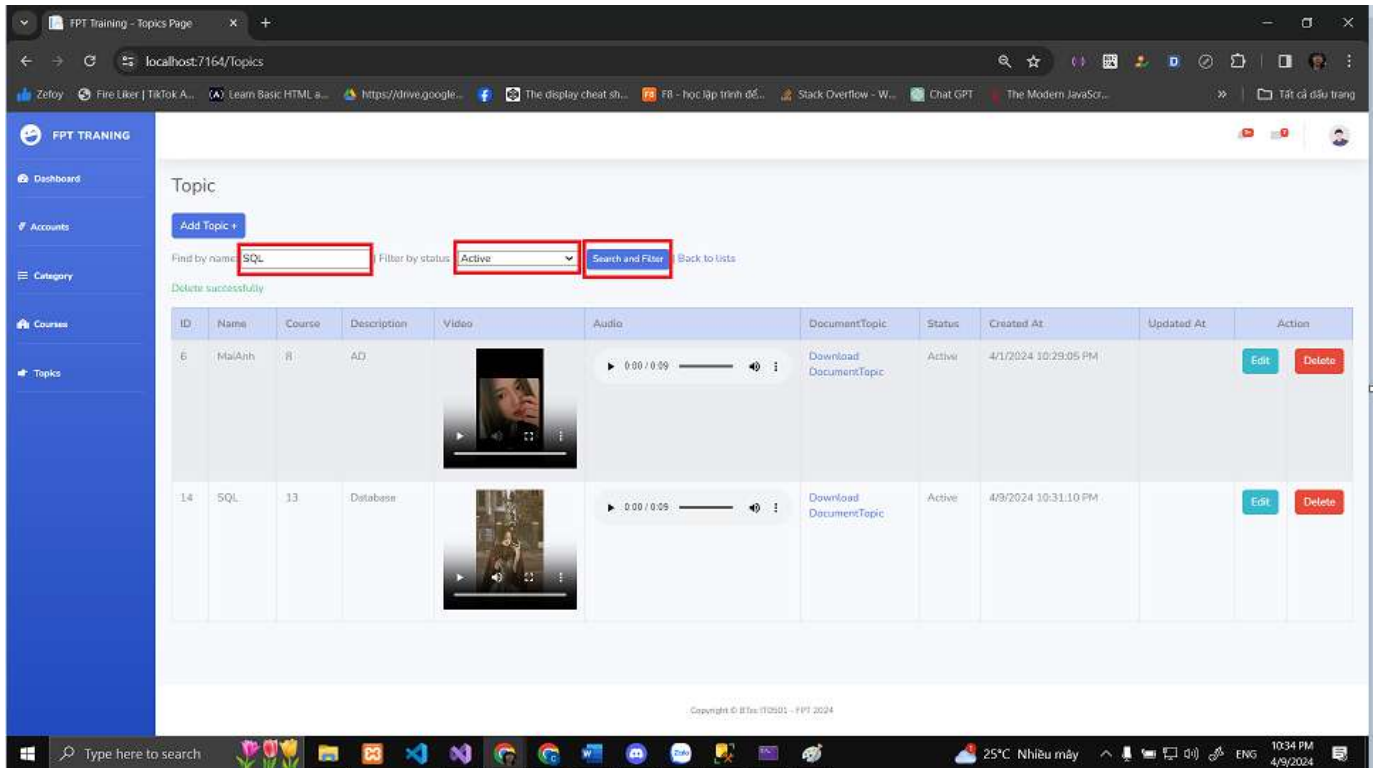


The screenshot shows the FPT Training Topics Page. A red box highlights the message "Delete successfully" in a green box. Below the message is a table with columns: ID, Name, Course, Description, Video, Audio, DocumentTopic, Status, Created At, Updated At, and Action. The table contains two rows of data.





ID	Name	Course	Description	Video	Audio	DocumentTopic	Status	Created At	Updated At	Action
6	MaAnh	8	AD			Download DocumentTopic	Active	4/1/2024 10:29:09 PM		<a href="#">Edit</a> <a href="#">Delete</a>
14	SQL	33	Database			Download DocumentTopic	Active	4/9/2024 10:31:10 PM		<a href="#">Edit</a> <a href="#">Delete</a>

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When there are too many courses to search, click "find by name", select "Filter by status" and then press "Search and Filter" to display the content and images of the Course you are searching for.

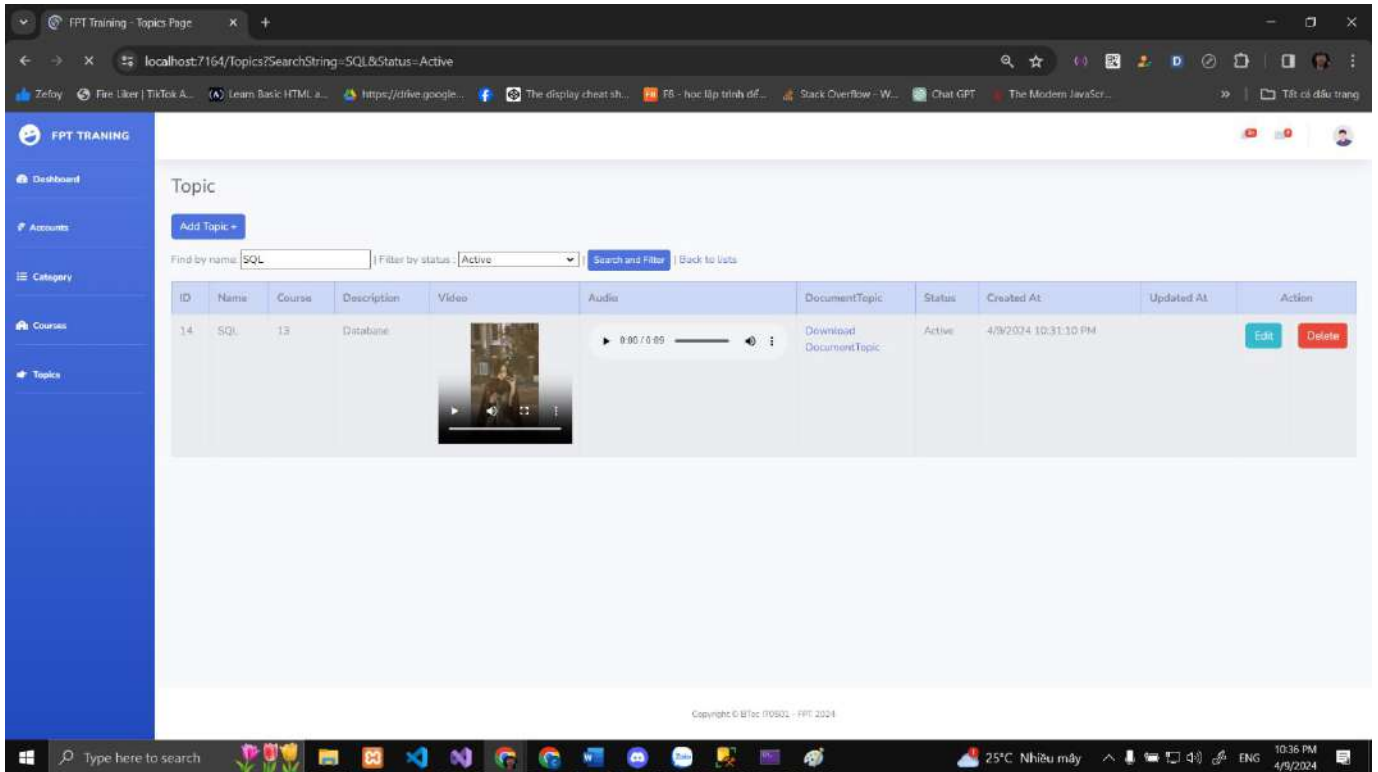


The screenshot shows a web application titled "PPT TRAINING" with a sidebar menu containing: Dashboard, Accounts, Category, Courses, and Topics. The main content area is titled "Topic" and includes a search bar with "SQL" entered, a status filter dropdown set to "Active", and a "Search and Filter" button. Below the search bar, a table displays the following data:



ID	Name	Course	Description	Video	Audio	DocumentTopic	Status	Created At	Updated At	Action
6	MalAnh	11	AD			<a href="#">Download DocumentTopic</a>	Active	4/1/2024 10:29:05 PM		<a href="#">Edit</a> <a href="#">Delete</a>
14	SQL	13	Database			<a href="#">Download DocumentTopic</a>	Active	4/9/2024 10:31:10 PM		<a href="#">Edit</a> <a href="#">Delete</a>

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It will display the information you are looking for

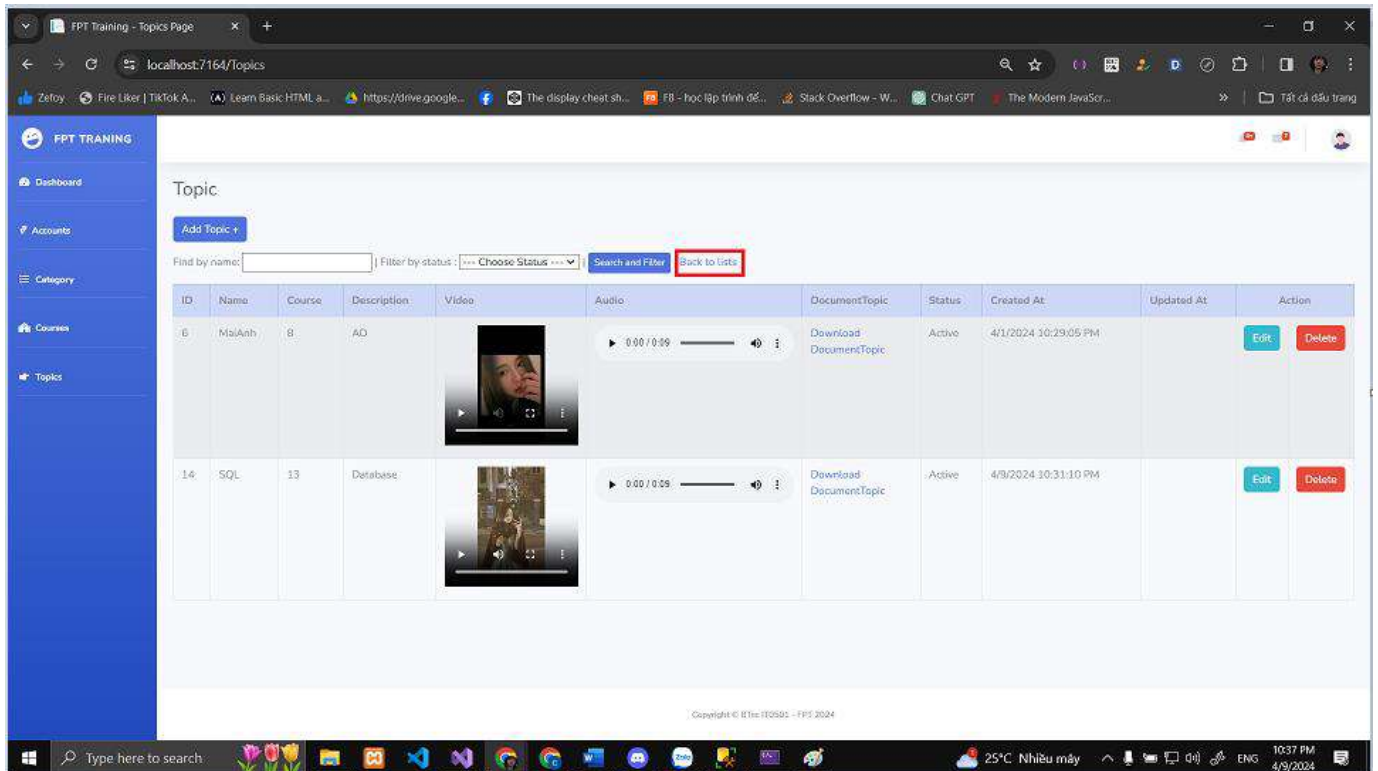


The screenshot shows the FPT Training Topics Page. The left sidebar contains navigation links: Dashboard, Accounts, Category, Courses, and Topics. The main content area is titled "Topic" and includes a search bar with "SQL" entered, a filter dropdown set to "Active", and a "Search and Filter" button. Below the search bar is a table with the following data:




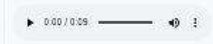
ID	Name	Course	Description	Video	Audio	DocumentTopic	Status	Created At	Updated At	Action
14	SQL	13	Database			Download DocumentTopic	Active	4/9/2024 10:31:10 PM		<a href="#">Edit</a> <a href="#">Delete</a>

At the bottom of the page, there is a copyright notice: "Copyright © BTEC (P) 2024".

If you want to return to the Course home page, click "Back to list"



The screenshot shows the FPT Training Topics Page with a list of topics. The left sidebar is the same as in the previous screenshot. The main content area is titled "Topic" and includes a search bar, a filter dropdown set to "Choose Status", and a "Search and Filter" button. The "Back to list" link is highlighted with a red box. Below the search bar is a table with the following data:

ID	Name	Course	Description	Video	Audio	DocumentTopic	Status	Created At	Updated At	Action
6	MatAnh	8	AD			Download DocumentTopic	Active	4/1/2024 10:29:05 PM		<a href="#">Edit</a> <a href="#">Delete</a>
14	SQL	13	Database			Download DocumentTopic	Active	4/9/2024 10:31:10 PM		<a href="#">Edit</a> <a href="#">Delete</a>

At the bottom of the page, there is a copyright notice: "Copyright © BTEC (P) 2024".

## **P6 Review the performance of your business application against the Problem Definition Statement and initial requirements**

### **1. Results of the project**

In part P5 above, I have provided an image of the system interface, I have implemented the functions of login, category management, course management and topic management. Each management section will include add, edit, and delete functions. The system operates stably and all functions can operate normally. To ensure the system quality of the project, in the next part I will create a test plan and test cases

### **2. Test Plan**

A test plan is a detailed document that outlines the approach, objectives, scope, resources, schedule, and procedures for testing a software application or system. It serves as a roadmap for the testing process, guiding testers on how to verify that the software meets its specified requirements and functions correctly.

#### **Test Plan: Internal Training Management System**

##### **2.1.Purpose**

The purpose of this test plan is to ensure the quality and reliability of the system interface developed for the project. It aims to verify the stability and proper functioning of the system, including login functionality, category management, course management, and topic management.

##### **2.2.Scope**

The scope of this test plan covers all features and functions implemented within the system interface, focusing on testing login, category management, course management, topic management, and related functionalities such as add, edit, and delete operations.

##### **2.3.Objectives**

- Verify the stability and reliability of the system interface.
- Validate the proper functioning of login, category management, course management, and topic management functionalities.
- Ensure the accuracy of add, edit, and delete functions within each management section.

- Identify and address any defects or issues encountered during testing.
- Provide stakeholders with confidence in the quality and performance of the system.

#### 2.4.Approach

Testing will be conducted using a combination of manual and automated testing techniques. Test cases will be designed to verify the functionality of each feature, including boundary and edge cases. Both positive and negative test scenarios will be considered.

#### 2.5.Schedule

Testing will commence following the completion of development and continue until all identified issues are resolved. The estimated testing duration is two weeks.

#### 2.6.Resources

- Test Environment: Development environment with access to the internal training management system.
- Test Data: Sample data for category, course, topic management and login.

#### 2.7.Test Cases

- Login
- Category Management
  - o Verify the adding of a new category.
  - o Verify editing an existing category.
  - o Verify deletion of a category.
- Course Management
  - o Verify the adding of a new course.
  - o Verify editing an existing course.
  - o Verify deletion of a course.
- Topic Management
  - o Verify the adding of a new topic.
  - o Verify editing an existing topic.
  - o Verify deletion of a topic.

#### 2.8.Exit Criteria

- All critical and high-priority defects have been addressed and resolved satisfactorily.
- Test coverage for category, course, topic management, and login features has been enhanced to achieve a minimum of 90%.
- System performance has been optimized and meets predefined acceptable standards.

### 3. TestCase

No	Test case	Step	Expected output	Actual output	Evaluation
<b>TC1</b>	Test Login	1. Open <a href="https://localhost:7164/">https://localhost:7164/</a> 2. Enter the correct username and password	Successfully logged in and displayed the Dashboard page.	Successfully logged in and displayed the Dashboard page.	Pass
<b>TC2</b>	Test Category page	Select "Category"	Displays the Category page	Displays the Category page	Pass
<b>TC3</b>	Test Add Category	1. Select the Add Category button 2. Enter Status 3. Enter PosterImage 4. Enter Description 5. Select the Save button (Leave the Status blank)	Unable to add new Category. Display a message asking to enter an additional Status.	Unable to add new Category. Display a message asking to enter an additional Status.	Pass
<b>TC4</b>	Test Delete Category	Enter the Delete button	Display a successful deletion message and delete the selected Category.	Display a successful deletion message and delete the selected Category.	Pass
<b>TC5</b>	Test Add Course	1. Select the Add Course button 2. Enter Name 3. Enter Category 4. Enter Image 5. Enter Description 6. Enter Start date 7. Enter End date 8. Enter Status 9. Select the Save button	Displays a notice of successful addition and returns the index page with the newly added Course.	Displays a notice of successful addition and returns the index page with the newly added Course.	Pass
<b>TC6</b>	Test Edit Course	1. Select the Edit button 2. Enter Name 3. Enter Category 4. Enter Image 5. Enter Description 6. Enter Start date 7. Enter End date 8. Enter Status	Displays a successful update message and returns the index page with the newly updated Course.	Displays a successful update message and returns the index page with the newly updated Course.	Pass

		9. Select the Update button			
<b>TC7</b>	Test Add Topic	1. Select the Add new Topic button 2. Enter Name 3. Enter Course 4. Enter Image 5. Enter Description 6. Enter Status 7. Choose Document topic 8. Choose Video 9. Choose Audio 10. Select the Save button	Displays a notice of successful addition and returns the index page with the newly added Topic.	Displays a notice of successful addition and returns the index page with the newly added Topic.	Pass
<b>TC8</b>	Test Add Topic	1. Select the Add new Topic button 2. Enter Name 3. Enter Course 4. Enter Image 5. Enter Description 6. Enter Status 7. Choose Document topic 8. Choose Audio 9. Select the Save button (Leave the audio blank)	Cannot add new Topics. Display a message asking to enter additional Audio.	Cannot add new Topics. Display a message asking to enter additional Audio.	Pass
<b>TC9</b>	Test Delete Topic	Enter the Delete button	Display a successful deletion message and delete the selected Topic.	Display a successful deletion message and delete the selected Topic.	Pass

#### 4. Conclusion

Overall, the system successfully passed all proposed test cases:

- The login functionality allows users to log in with correct credentials and directs them to the home page.
- Adding a Category functions correctly when all required information is provided, while prompting for additional input when necessary fields are left blank.
- Updating a Category works as expected, updating the Category with correct information and prompting for additional input when required fields are not filled.
- Deleting a Category removes the selected Category upon confirmation.



- Adding a Course operates smoothly when all necessary details are entered, displaying an error message when inputs are missing.
- Updating a Course functions properly, updating the Course with correct information and displaying an error message when required fields are not filled.
- Deleting a Course successfully removes the selected Course upon confirmation.
- Adding a Topic works effectively when all required information is provided, displaying an error message when inputs are missing.
- Updating a Topic operates correctly, updating the Topic with correct information and displaying an error message when required fields are not filled.
- Deleting a Topic removes the selected Topic upon confirmation.

In summary, all proposed test cases returned passing results. However, for the system to be more comprehensive, it should consider additional functionalities such as assigning topics to courses, assigning lecturers to topics, and assigning students to courses.

### **III. CONCLUSION**

In summary, the structured evaluation approach outlined provides a robust framework for assessing and enhancing the effectiveness of a business application. By employing formal questionnaires, soliciting peer feedback, and interpreting insights gained, opportunities for improvement can be identified and leveraged effectively. Furthermore, the adherence to rigorous standards and documentation throughout the development process ensures transparency and accountability, essential elements in maintaining the integrity of the application. The review of the application's performance against initial requirements offers valuable insights into its alignment with organizational goals, enabling informed decision-making and strategic adjustments as necessary. Moreover, the critical analysis of influencing factors allows for a deeper understanding of design intricacies and testing stages, facilitating continuous improvement. Through iterative refinement based on evaluation insights, the application's efficacy and organizational impact can be continuously enhanced, ultimately driving success in the ever-evolving business landscape.