

**Al Najah National University**

**Practical Training Department**

Practical Training Report at Nour Soft Company

**Name:**

Mahmoud Atef Abed

**ID:**

92301404

**Training Institution:**

Nour Soft Company

**Supervisor:**

Anas Atatri

**Week 1 is 25 hours: Date: 2/11/2024**

This first week was dedicated to completing an online C# course

[(https://www.youtube.com/playlist?list=PLqPejUavRNTWrbmE7fTvBC1HH-sAmz7c3)](https://www.youtube.com/playlist?list=PLqPejUavRNTWrbmE7fTvBC1HH-sAmz7c3) to establish a solid foundation in programming. This C# knowledge will support my upcoming work with ASP.NET Core, where I’ll be applying C# skills in real-world web application development.

**Tasks and Responsibilities:**

My primary tasks this week were focused on understanding C# syntax and concepts, which I will use extensively in ASP.NET Core development.

* **Task 1**: Completed a comprehensive C# course covering key topics such as object-oriented programming, data handling, and control flow.
* **Task 2**: Practiced coding exercises, focusing on writing clean, structured code and implementing object-oriented principles.
* **Task 3**: I sent Tariq Duwaikat a message stating that I had completed the C# course, which was a prerequisite to starting the next course, which is ASP.net Core, after devoting myself to studying and practical application, and now I have mastered it well and will start the ASP.net Core course.

**C# Skills Development:**

This week’s C# course completion prepared me with essential programming skills that will help me succeed in ASP.NET Core. Key areas of focus included:

* **Object-Oriented Programming (OOP)**: Learned and practiced principles of encapsulation, inheritance, and polymorphism, essential for structuring web applications.
* **Data Management**: Developed skills in managing data collections like arrays and lists, which will be useful for handling data in ASP.NET Core applications.
* **Error Handling**: Gained a foundational understanding of exception handling, critical for writing stable, maintainable code in web projects.

**Challenges and Solutions:**

* **Challenge 1**: Familiarizing myself with C# syntax and concepts unique to the language. **Solution**: Engaged in hands-on exercises and reviewed documentation to gain confidence with C#.
* **Challenge 2**: Preparing to bridge C# knowledge to ASP.NET Core development.

**Solution**: I will start addressing this by taking the next course, ASP.NET Core with C#, which will provide the knowledge and practical skills to effectively integrate C# with ASP.NET Core for web application development.

**Learnings and Takeaways:**

Completing the C# course has provided me with a solid programming foundation. I now feel prepared to start with ASP.NET Core and am excited to apply C# in a web development context. This initial C# training will support my learning as I begin exploring ASP.NET Core’s project structure and functionality.

**Next Week’s Goals:**

* Begin learning ASP.NET Core, through this course online <(>[https://www.youtube.com/watch?v=bRtTIrhm16Q&list=PLqPejUavRNTWqGYPf1pHkbLYdbqi\_Uhg)](https://www.youtube.com/watch?v=bRtTIrhm16Q&list=PLqPejUavRNTWqGYP-f1pHkbLYdbqi_Uhg) It was given to me by Tariq Duwaikat (Noor Soft Company).

**GOOD LUCK** **☺️**

**Week 2 is 45 hours: Date: 9/11/2024**

This week, I completing the ASP.NET Core course that was sent to me by Nour Soft via YouTube (<https://www.youtube.com/watch?v=bRtTIrhm16Q&list=PLqPejUavRNTWqGYP-f1pHkbLYdbqi_Uhg>), The course as step in applying the C# knowledge I gained in Week 1, helping me transition into ASP.NET Core for web development.

**Tasks and Responsibilities:**

The main focus this week was solely on mastering ASP.NET Core through the course content and practical exercises:

* **Task 1:** Completed the entire ASP.NET Core course, covering key topics like MVC architecture, routing, data handling, and middleware configuration.
* **Task 2:** Worked through practical assignments to reinforce each concept, applying the lessons learned.
* **Task 3:** Informed Tariq Duwaikat at Nour Soft about my progress and that I have completed the ASP.NET Core course.

**ASP.NET Core Skills Development:**

This week’s training allowed me to focus on the following ASP.NET Core topics:

* **MVC Framework:** Gained proficiency in using the Model-View-Controller (MVC) pattern to create well-structured applications.
* **Data Management with Entity Framework:** Strengthened skills in performing CRUD operations and handling data interactions within ASP.NET Core applications.
* **Routing and Middleware:** Learned how to configure and manage routes and middleware, improving the flow of requests and enhancing security.
* **Dependency Injection:** Deepened my understanding of dependency injection, allowing me to create scalable and testable applications.

#### Challenges and Solutions:

* **Challenge 1: AuthorizationPolicy Issue in Roles**
  + **Problem:** While implementing user roles and authorization, I encountered an issue related to the **AuthorizationPolicy** where the policy didn't work as expected.
  + **Solution:** I am currently investigating the issue by reviewing the Authorization policy setup, specifically focusing on the configuration in Startup.cs and ensuring the correct setup of role-based access control. I plan to test different approaches such as adjusting role names and policy definitions to resolve the issue, I sent the problem I faced to Tariq Duweikat and he has not solved it yet.
* **Challenge 2: SMTP Authentication for Email Confirmation**
  + **Problem:** When working on the email confirmation functionality, I faced an issue related to **SMTP authentication** where my email settings failed to send confirmation emails.
  + **Solution:** I am troubleshooting the SMTP settings and verifying my SMTP server configuration (including username, password, and server port). Additionally, I plan to check if my email provider has specific requirements, such as allowing less secure apps or generating app-specific passwords, I sent the problem I faced to Tariq Duweikat and he has not solved it yet.

#### Learnings and Takeaways:

This week’s course has provided a solid foundation in ASP.NET Core, equipping me with the skills to begin creating and managing web applications. I feel confident in my ability to implement ASP.NET Core concepts and apply them to practical web development projects.

**Next Week’s Goals:**

I sent a message to Tariq Duweikat about the next step after I finish the ASP.net Core course, but unfortunately he hasn't responded to me yet.

**GOOD LUCK** **☺️**

**Week 3 is 5 hours: Date: 15/11/2024**

This week was less productive due to limited guidance and lack of detailed instructions from Tariq Dweikat. However, I attempted to make progress in understanding the template project scope and potential tasks.

**Tasks and Responsibilities:**

1. Reviewed the project description and tried to understand its scope, although detailed documentation or guidance was unavailable.
2. Explored relevant resources online to gain insights into the technologies that might be used in the template project.
3. Communicated with the supervisor (Tariq Dweikat) to request more information and clarity about the template project.

#### Challenges and Solutions:

**Challenge 1:** Lack of clear instructions and template project description.

* **Solution:** Attempted to outline the template project requirements based on available details and general assumptions.

#### Learnings and Takeaways:

* Identified the need for clearer communication with supervisors to ensure effective use of training hours.
* Learned to navigate ambiguous template project requirements by utilizing external resources and making educated assumptions.

**Next Week’s Goals:**

* Obtain detailed template project guidelines from Tariq Dweikat.
* Begin implementing initial template project components if guidance is provided.

**GOOD LUCK** **☺️**

**Week 4 is 5 hours: Date: 21/11/2024**

This week was less productive due to the lack of clear instructions and guidance regarding the template project. While my supervisor, Tariq Dweikat, provided a file that clarified a simple part of the project, no Zoom meeting or recorded video has been held or provided to explain the overall structure and requirements of the template project. This has limited my ability to make substantial progress.

**Tasks and Responsibilities:**

* 1. Studied the file provided by Tariq Dweikat to understand a specific aspect of the project.
  2. Attempted to outline and interpret the project scope independently, despite limited details.

#### Challenges and Solutions:

**Challenge 1:** No Zoom meeting or recorded video was provided to explain the template project, leaving key aspects unclear.

* **Solution:** Reiterate the request for a Zoom meeting or a recorded video explanation to the supervisor.

Continue independent exploration of the provided material in the meantime.

#### Learnings and Takeaways:

* Emphasized the importance of interactive or detailed explanations (e.g., through Zoom or video recordings) for understanding complex project requirements.
* Self-study is insufficient for understanding broader project scope without detailed guidance.

#### Next Week’s Goals:

* Follow up with Tariq Dweikat to ensure a Zoom meeting is scheduled or a recorded video is provided for the project explanation.

**GOOD LUCK** **☺️**

**Week 5 is 15 hours: Date: 30/11/2024**

This week marked a significant milestone in my journey with ASP.NET Core, where I focused on completing the CRUD (Create, Read, Update, Delete) task, a key component of my ongoing ASP.NET Core training. The assignment involved building a project with warehouse-like functionality, applying various concepts learned throughout the course.

**Tasks and Responsibilities:**

I focused on completing the CRUD (Create, Read, Update, Delete) implementation for a warehouse-like application in ASP.NET Core, applying the skills learned in the course.

* 1. Task 1: Successfully implemented CRUD operations for managing products, customers, and inventory data.
  2. Task 2: Applied MVC architecture, Entity Framework, Routing, and Middleware for smooth data flow and user interaction.
  3. Task 3: Updated Tariq Duwaikat on my progress and challenges faced.

### **Skills Developed:**

* **MVC Architecture:** Mastered the separation of concerns using the **Model-View-Controller** pattern.
* **Entity Framework:** Improved database interaction skills, focusing on CRUD operations.
* **Routing & Middleware:** Gained practical experience in setting up routes and middleware for request handling.
* **Dependency Injection:** Strengthened knowledge of **dependency injection** for creating scalable and testable applications.

#### Challenges and Solutions:

#### ****Class Dependency Issue:****

#### ****Problem:** While working on the CRUD implementation, I encountered issues where classes depend on services or configurations that were not correctly injected. This led to dependency injection errors, causing certain features of the application not to work as expected.**

#### ****Solution:** I am reviewing the configuration in template project to ensure all services are properly registered. I plan to test different dependency injection strategies to resolve the issue.**

#### ****Authorization Policy Issue:****

#### ****Problem:** While implementing role-based access control, the AuthorizationPolicy didn’t function as expected, preventing roles from being enforced correctly.**

#### ****Solution:** I am reviewing the setup in Projects in template project, focusing on how the policies are defined and ensuring that role names are consistent. I have reached out to Tariq Duwaikat for further assistance.**

**Next Week’s Goals:**

New Task: Begin the new task assigned by Tariq Duwaikat, which involves creating a location management system for customers, focusing on data handling and potentially integrating geolocation features.

**GOOD LUCK** **☺️**

**Week 6 is 15 hours: Date: 7/12/2024**

This week, I successfully completed the task of determining the Location of customers using jQuery and the location by selector method. However, I encountered an issue when trying to add the jQuery library to the template project. Due to the project's security policies, adding the library requires a specific addition mechanism. I have reached out to Tariq Duwaikat for guidance on how to properly implement this in compliance with the security standards.

**Tasks and Responsibilities:**

### **Location Implementation:**

### Successfully implemented Location features using jQuery and the location by selector method to determine and display the customer’s location.

### **jQuery Library Integration:**

### Encountered difficulties in adding the jQuery library to the template project due to the need for a specific addition mechanism dictated by the project's security policies.

### **Skills Developed:**

### **Location with jQuery:** Enhanced my skills in using jQuery for geolocation and dynamic location-based features.

### **Security and Library Integration:** Gained more insight into how security policies can influence the integration of external libraries in the template project.

#### Challenges and Solutions:

**jQuery Integration Issue:**

* **Problem: The jQuery library needs to be added using a specific mechanism as per the security policies in place.**

**Solution: I have reached out to Tariq Duwaikat for advice on how to properly integrate the library while adhering to the security requirements.**

**Next Week’s Goals:**

Resolve jQuery Integration Issues: Work on implementing the correct addition mechanism for the jQuery library once I receive guidance from Tariq Duwaikat.

**GOOD LUCK** **☺️**

**Week 7 is 10 hours: Date: 14/12/2024**

This week, I focused on addressing the issues from the previous mission and successfully completing the tasks with guidance from Tariq Duwaikat. Additionally, I learned how to correctly add libraries, such as jQuery, and set routes in the template project. I have completed the mission and am now awaiting further instructions for the upcoming week.

**Tasks and Responsibilities:**

1. **Problem Solving for Previous Mission**:

* Addressed and resolved the issues encountered in the previous mission, following the instructions provided by Tariq Duwaikat.
* Ensured that all components of the mission were correctly implemented, resulting in the successful completion of the task.

2. **Completion of Mission**:

* After resolving the problems, I completed the mission and ensured it met the requirements set by Tariq Duwaikat.

3. **Learning Library Integration**:

* Learned the correct method for adding external libraries, such as jQuery, to the project, ensuring compatibility with the template’s security policies.
* Also learned how to configure the routing system in the template project for better organization and functionality.

### **Skills Developed:**

1. **Problem Solving and Troubleshooting**: Improved my ability to quickly diagnose and solve issues in the project, ensuring smooth progress in future tasks.

2. **Following Detailed Instructions**: Gained more experience in closely following instructions to meet specific project requirements.

3. **Library Integration**: Gained proficiency in adding external libraries in compliance with security policies.

### 4. **Routing Configuration**: Enhanced my understanding of setting up routes in the template project to ensure proper navigation and functionality.

#### Challenges and Solutions:

**Challenge**: Some issues remained unresolved from the previous mission, requiring guidance.  
**Solution**: Consulted with Tariq Duwaikat for help, following his instructions to resolve the issues effectively.

**Next Week’s Goals:**

Await further instructions from Tariq Duwaikat for the next mission. Once received, I will begin working on it and ensure its successful completion.

**GOOD LUCK** **☺️**

**Week 8 is 20 hours: Date: 14/12/2024**

This week, I focused on implementing a file upload feature as part of the ongoing project. The task required using the MVC template to create an interface for file uploads, implementing validation, and storing the files on the server. I followed the detailed requirements provided, ensuring security measures were in place and that the functionality was user-friendly. The task was successfully completed, and I am awaiting further instructions.

**Tasks and Responsibilities:**

1. **File Upload Interface**:

* Developed a user-friendly interface for file uploads, allowing users to either drag-and-drop or use a "Choose File" button.
* Added a field to enter a description for each uploaded file to meet the requirements.

2. **Validation**:

* Implemented validation to ensure only specific file types (.pdf, .png, .jpg, .docx) are allowed for upload.
* Set file size limits, ensuring that files did not exceed the 5MB size limit.
* Ensured that users could not upload files without providing a description.

3. **File Saving**:

* Implemented functionality to save uploaded files to a designated directory (uploads).
* Used Guid.NewGuid().ToString() to generate unique file names for each uploaded file, ensuring no filename conflicts.

4. **Database Update**:

* Created a database table to store the original filename and the user-provided description.
* Ensured that the database record included the file name and unique identifier for future retrieval.

5. **User Feedback**:

* Added success messages to inform users when their files were uploaded and saved successfully.
* Implemented error messages for validation failures (e.g., invalid file type, exceeded size limit) and unexpected errors during the upload process.

6. **Security Considerations**:

* Secured the file path to prevent manipulation by users.
* Prevented the execution of malicious files by sanitizing file names and restricting file types.

7. **Displaying Uploaded Files**:

* Created a table to display uploaded files, including the filename and description.
* Made the filenames clickable, allowing users to download or view the file by clicking the link, which retains the original filename.

### **Skills Developed:**

1. **MVC Template Implementation**: Gained hands-on experience working with the MVC template to implement the file upload functionality.

2. **File Validation and Security**: Strengthened my understanding of file validation and security best practices for handling file uploads.

3. **Database Integration**: Improved my ability to integrate file information into a database and ensure proper retrieval.

#### 4. ****User Interface Design****: Enhanced my skills in designing user-friendly interfaces for file uploads.

#### Challenges and Solutions:

**Challenge**: Ensuring the file upload functionality worked smoothly with various file types and sizes while preventing malicious files from being executed.

**Solution**: Implemented thorough validation and security checks to address these issues. Additionally, ensured that the upload interface was intuitive for users.

**Next Week’s Goals:**

Awaiting further instructions from Tariq Duwaikat for the next mission. Once received, I will begin working on it and aim to successfully complete it.

**GOOD LUCK** **☺️**