# Workshop: Building a Web API with ASP.NET Core

# Introduction

# Welcome to the workshop on building a Web API using ASP.NET Core! In this hands-on session, you'll learn how to create a robust and scalable API to serve data to client applications.

# Prerequisites

# Before starting the workshop, make sure you have the following prerequisites installed:

# Visual Studio or Visual Studio Code

# .NET Core SDK

# swagger or any REST API client

# Agenda

# Introduction to ASP.NET Core

# Setting up a new ASP.NET Core project

# Creating models and database context

# Implementing CRUD operations

# Securing the API with JWT authentication

# Testing the API endpoints

# Part 1: Introduction to ASP.NET Core

# Overview of ASP.NET Core framework

# Benefits of using ASP.NET Core for building Web APIs

# Part 2: Setting up a new ASP.NET Core project

# Creating a new ASP.NET Core project in Visual Studio

# Exploring project structure and files

# Adding necessary NuGet packages

# Part 3: Creating models and database context

# Defining data models for your API

# Setting up Entity Framework Core for database operations

# Creating a DbContext class for database interactions

# Part 4: Implementing CRUD operations

# Creating controllers and API endpoints

# Implementing GET, POST, PUT, and DELETE actions

# Handling request and response formats (JSON/XML)

# Part 5: Securing the API with JWT authentication

# Configuring JWT authentication middleware

# Generating JWT tokens for authorized access

# Protecting sensitive endpoints with authorization policies

# Part 6: Testing the API endpoints

# Using Swagger for testing API endpoints

# Sending requests with different HTTP methods and payloads

# Verifying responses and error handling

# Conclusion

# Congratulations! You've completed the workshop on building a Web API with ASP.NET Core. You should now have a good understanding of how to create, secure, and test Web APIs using ASP.NET Core.

# Additional Resources

# Official ASP.NET Core documentation:

# Microsoft Learn: ASP.NET Core tutorials:

# GitHub repository with workshop code samples