COMP-CO884
ASP.NET

Agenda

Course introduction
ASP introduction

Course Structure

Two 2 hour labs per week

- Lectures

- Demos

- Exercises

Course Evaluation

Assignments   20%
Hands-on midterm test   40%
Hands-on final exam   40%

Assignments

Assignments may be resubmitted until a grade of 80% is earned

Late assignments can earn a maximum grade of 80%

Course Tools

Visual Studio 2022 (VS)

- Powerful integrated development environment (IDE)

- Web page editor, CSS editor, built in web server, and much more

SQL Server Express LocalDB, built into VS

Tools installed throughout College

Available from Microsoft Azure Dev Tools for Teaching

What is ASP.NET?

A framework for creating dynamic web pages

"Microsoft's answer to PHP"*

*more accurately: PHP + your favourite framework

mohawk
COLLEGE

What is ASP.Net Core?

Open source, cross platform* framework

The future of .NET web development

*Linux, Windows, macOS

ASP.Net Components

HTML

Razor

Entity Framework

Middleware

Bootstrap

C#

Razor

- Similar to PHP
- Code embedded in HTML
- Type safe access to properties and methods via an associated object

Entity Framework

- Database to object mapping
- Accessed with LINQ

Middleware

Runtime components responsible for calling calling other components based on HTTP requests.

Can be customized, but that is beyond the scope of this course.

Bootstrap

CSS Framework

Can be customized, but that is beyond the scope of this course.

We will simply accept the default look and feel.

ASP.Net Application Types

Razor Pages

MVC

Web API

Razor Pages

Most like classic PHP

One C# model object per page

MVC

Model View Controller

Design Pattern

Goal: Separate data, presentation, and business logic

Web API

Remote method call

Helper code builds and parses JSON or XLM to send data across the network

Useful for distributed application within and across enterprises

Security

Production websites should use HTTPS

However, since we won't be deploying our sites and to avoid hassles with certificates during the semester, we will mostly create sites that only use HTTP