# CMPS 3390 Homework 2

# Fall 2024

### Web Development

- 1. Front-End Development
  - <u>HTML/CSS/JavaScript</u>: Core technologies for building the structure, style, and interactivity of web pages.
  - **<u>React.js</u>**: A popular library for building user interfaces, particularly single-page applications (SPAs).
  - **Angular**: A robust framework for building dynamic web applications.
  - <u>Vue.js</u>: A progressive framework for building user interfaces with a flexible and simple approach.
  - **<u>Svelte</u>**: A compiler that converts declarative components into highly efficient JavaScript code.
  - **Bootstrap**: A CSS/Javascript framework that simplifies responsive web design with prebuilt components and layouts.
  - **<u>Tailwind CSS</u>**: A utility-first CSS framework that allows you to build custom designs without writing CSS.

# **Mobile Development**

#### 1. Native Development

- **<u>Swift</u>**, <u>SwiftUI</u> (iOS): The primary programming language for developing iOS applications.
- **Objective-C** (iOS): The older language for iOS development, still used in many legacy applications.
- Kotlin (Android): The preferred programming language for Android development.
- **Java** (Android): The original programming language for Android development, still widely used.

#### 2. Cross-Platform Development

- **Flutter** (Dart): A UI toolkit for building natively compiled applications for mobile, web, and desktop from a single codebase.
- **<u>React Native</u>** (JavaScript): A framework for building native mobile apps using React.
- **Ionic** (JavaScript): A framework for building cross-platform mobile apps using web technologies.
- **.Net Maui** (C#): A framework for building cross-platform mobile applications using the .NET ecosystem.

# **Desktop Development**

- 1. <u>Electron</u> (JavaScript): A framework for building cross-platform desktop apps with web technologies like HTML, CSS, and JavaScript.
- 2. **Qt** (C++): A framework for developing cross-platform applications and Uls.
- 3. **JavaFX** (Java): A platform for building rich desktop applications with Java.
- 4. <u>GTK</u> (C/various): A toolkit for creating graphical user interfaces, primarily used with Linux applications.
- 5. **WPF** (Windows Presentation Foundation) (C#): A UI framework for building visually stunning Windows desktop applications.

# **Game Development**

- 1. <u>Unity</u> (C#): A widely-used game engine for developing 2D and 3D games across various platforms.
- 2. <u>Unreal Engine</u> (C++/Blueprints): A powerful game engine with tools for creating high-quality 3D games.
- 3. **<u>Godot</u>** (GDScript/C++/C#): An open-source game engine for 2D and 3D game development.
- 4. <u>Pygame</u> (Python): A set of Python modules designed for writing video games, ideal for beginners.
- 5. **<u>LibGDX</u>** (Java): A framework for building cross-platform games in Java.