

CSE 310 – Applied Programming Module Plan

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Module # (1-3): 1

1. Identify which module you have selected to work on. Place an "X" in front of your selected module.

<input type="checkbox"/> Cloud Databases	<input type="checkbox"/> Language – Java
<input type="checkbox"/> Data Analysis	<input type="checkbox"/> Language – Kotlin
<input type="checkbox"/> Game Framework	<input type="checkbox"/> Language – R
<input type="checkbox"/> GIS Mapping	<input type="checkbox"/> Language – Erlang
<input type="checkbox"/> Mobile App	<input type="checkbox"/> Language – JavaScript
<input type="checkbox"/> Networking	<input checked="" type="checkbox"/> Language – C#
<input type="checkbox"/> SQL Relational Databases	<input type="checkbox"/> Language - TypeScript
<input type="checkbox"/> Web Apps	<input type="checkbox"/> Language – Rust
<input type="checkbox"/> Language – C++	

2. At a high level, describe the software you plan to create that will fulfill the requirements of this module. Describe how each requirement will be met. This may change as you learn more about the technology or language you are learning.

For this module, I plan to build a console application in C# that demonstrates the use of classes and objects. The program will allow the user to interact through the console and will save some data to files. This project will give me practice with object-oriented programming and file handling in C#.

How the project meets the requirements:

1. **Classes and objects:** I will create at least two classes to represent different parts of the program.
 2. **Inheritance and polymorphism:** One class will inherit from another, and I will override a method to show polymorphic behavior.
 3. **User interaction:** The program will ask for input and display results in the console using *Console.ReadLine()* and *Console.WriteLine()*.
 4. **File storage:** Some data will be saved to a file using *StreamWriter* and loaded back with *StreamReader*
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3. Create a detailed schedule using the table below to complete your selected module during this Sprint. Include the task and duration for each day. You are expected to spend 24 hours every Sprint working on this individual module and other activities in the course. Time spent on this individual module should be **at least** 12 hours.

	First Week of Sprint	Second Week of Sprint
Monday	Review C# basics: classes, objects, inheritance	Implement inheritance and override methods to show polymorphism
Tuesday	Plan program structure and create class outlines	Refine program logic and class interactions
Wednesday	Implement main classes with basic methods	Test file handling thoroughly and fix bugs
Thursday	Add user input/output functionality with Console.ReadLine() and Console.WriteLine()	Test complete program flow end-to-end
Friday	Implement file handling to save and load data	Debug remaining issues and polish code
Saturday	Test classes individually and debug issues	Final review and submit module work

4. Identify at least two risks that you feel will make it difficult to succeed in this module. Identify an action plan to overcome each of these risks.

Risk	How I Will Address It
Difficulty understanding inheritance or polymorphism	Start with small examples, use tutorials, and ask for help if needed
Bugs or runtime errors in the program	Test each part as it is developed, use the VS Code debugger, and check results step by step