Custom Project – Plan

This task gets you to bring together everything you have learnt as you start to plan to build a program of your own design. To complete this task, you need to describe the program you want to create, and how it will allow you to evidence what you have learned. In effect, you are designing your own assessment here. Make it something you will enjoy doing!

Learning Goals

To complete this task, you need to demonstrate that you can do the following:

- Conceptualise and plan a program that will demonstrate effective use of the programming concepts, processes, coding practices, and professional characteristics required to meet the Distinction or High Distinction standard within the unit.

Focus

As you work through this task, focus on the following aspects of the unit:

- **Programming concepts:** Ensure your program has the capacity for you to demonstrate most of the concepts you have learnt.
- **Programming process**: Consider how you will develop this, and make sure to show you can plan, design, implement, and test your solution.
- **Coding**: Think about the tools and processes you will need to achieve your goal.
- **Professional characteristics:** Focus on demonstrating your inventiveness and passion. Make this your program, something you will love to create and be proud to show off to others.

Your Task

For this task you will need to submit the following:

- A PDF document containing your idea for your custom project

1. Determine what you want to build

Spend some time thinking about a program you would love to build and have the capability of building (at least a functional part of) within the given timeframe.

Write a short (no more than one page) description of the program. This can be a game or command line application, but it needs to allow you to demonstrate what you have learnt as outlined below.

Your program must:

- Be written in C/C++.
- Be functional, though it does not need to be complete. It will most likely be a work in progress and this is great!
- Make use of structs to model system entities.
- Make use of arrays to work with multiple values.
- Have its functionality divided across multiple functions and procedures.
- Have used an iterative development process.
- Follow good programming practices, including following naming and indentation conventions and standards of the language used.

Your program may:

- Use just the terminal.
- Use SplashKit.
- Use other third-party libraries and tools.

To be eligible for **High Distinction**

- You must demonstrate a high degree of ownership of the project. We may have helped you get started, but you have taken the project in your own direction and can demonstrate this.
- The program must demonstrate a degree of mastery, creativity, and/or sophistication. This will require it to be of a reasonable size, well written, with effective use of programming tools.
- You must be able to communicate the core architecture of the program and highlight how its design efficiently achieves its objectives.
- Your program must use features of the libraries, language features, or use programming tools that have **not** been covered in the unit.

2. Prepare Submission

Capture the idea of your program and how it will meet the above requirements in a single PDF document to submit.

3. Upload Your Submission

Make sure to actively seek and engage with feedback prior to submitting your work. Utilise this to improve your solution and understanding.

Once you have all the evidence in place, login to OnTrack and mark the task as **Ready for Feedback**. The submission process will ask you to do the following:

- Upload the PDF with your project ideas
- Reflect on how what you learnt related to the unit focuses (Programming Concepts, Processes, Coding, and Professional Characteristics)

4. Engage with Feedback

Make sure to actively engage with feedback to improve your custom project idea. You want to ensure that your idea will help you achieve your goals in the unit. Discuss this with your tutor and in class so that you can get the feedback you need.