Project Set-Up – Teaching Coding Application

# Project Vision

## What is the project?

For this project I want to create a web application that will help teach and aid new or existing computing students (and none-students) how to code with a range of difficulties, different styles of coding and programming languages to the affect that the user will be able to gain an insight into what computing is all about and how it can be applied to a variety of situations within their time in school and the workplace. I want to add in extra functionality to the project meaning that I wish to add features such as; The ability to take notes as the user uses the application so they don’t need to have a separate document to write in which will help keep everything concise for them and save time going between two screens or documents, Useful keyboard shortcuts, Recommended software and extra tips that will make their computing experience better.

The basis for the idea of doing this for my project was because of my reflection on my past few years in university. As someone who only started computing a couple of years before university I wasn’t as confident as some of the other students leading me to not perform as I had hoped. I want to create this application as a way of learning new elements that the user might not of known as well as revise specific topics with the ability to access this all in one place rather then having to go back and forth between different websites and resources just to find the one line of code that would help make the program or application run correctly. I look back at my years and wonder what I could’ve done differently and I came to the conclusion and I was lacking in both knowledge and the confidence in asking for help and so when it came down to even the smallest issue I encountered, I stayed quiet and struggled alone but I now have the opportunity to help aid someone else who might be in the same situation as I was and so by creating this Code Teaching Application I hope that I can then expand on it further after the project is completed and make it an easily accessible application in which anyone can use and hopefully help make study life of students easier.

# Keywords

* **Teaching**
* **All-in-One**
* **Revision**
* **Developmental**
* **JavaScript**
* **C#**
* **HTML**
* **CSS**

# Suggested Supervisor

I would like to suggest Shirley Atkinson or David Walker to be my Supervisor as I have worked with them both before and as they have taught me for a couple of years so I would be more comfortable with them rather then a lecturer or member of staff I haven’t met before.

# 

# Risk Plan

I have these potential risks that I believe could occur during the production of my project:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  | **Likelihood of Risk** |  |
|  |  | **Low** | **Mid** | **High** |
|  | **Low** | ***Professionalism*** -  Content isn’t laid out in a professional standard | ***Repetition*** –  Re-creating or changing existing material, repeating a process leading to poor progression | ***Scope Creep*** *-*  Adding too many addition features as to then move away from the core concept of the project |
| **Impact on Project** | **Mid** | ***Time******Management****-*  Being behind on sprints and the content expected for the next sprint | ***Performance*** –  Issues using the right software and creating an application that doesn’t crash | ***Disproportionate******Content***    Too much content in one area, some aspects could be larger than others |
|  | **High** | ***Compatibility*** *–*  Web App doesn’t load on certain browsers or devices | ***Attention******to******Detail*** *-*  Content is poor or is not in enough detail, lacking the depth required to fully explain a topic | ***Project******Complexity***    Complications with Complex and High-End coding |

## Risk Management

***Professionalism:*** This risk can be easily controlled if I follow the same style of formatting as I write more content and after each Sprint I ensure that the content I am producing meets a specific standard before moving on to another step. This in turn could mean I spend too much time trying to perfect a certain aspect of the web application but as stated above, this can be avoided if done correctly.

***Repetition:*** This risk is one in which I have the tendency of doing by mistake by using a question(s) to many times or by doing a similar question. This can be avoided by creating a list of questions with their topics prior to adding them to the application.

***Scope Creep:*** This risk can be controlled if I create a plan with the desired features I wish to add to my application and ensure that if I am to add anything new, I check that I am up to date with the rest of the content expected for that Sprint.

***Time******Management****:* This risk can be reduced by not overloading myself with content that need to be created during each Sprint and give myself enough time to adjust where necessary or allocate extra time in the next Sprint to compensate.

***Performance:*** This risk can be controlled by testing the application on university computers and doing research prior to using a different piece of software from my personal device to see if the university computers can access or use the software I wish to use.

***Disproportionate******Content:*** This risk will be reduced by organising the content I wish to use and checking to see if I need to include or reduce the content of a topic based on analyse and planning prior to implementation.

***Compatibility****:* Different from performance as this is more down to checking that the software used meets the requirements of certain systems and if the device used if up to date itself. Ensure that the compatibility settings are in place and plan for different operating systems etc.

***Attention******to******Detail:*** This risk can be reduced by researching different techniques in the teaching of a topic as well as the possibility of shadowing labs or practical sessions to gain this insight.

***Project******Complexity:*** This is the highest risk with the highest possibility due to the content for this risk to arise will be closer to the end of the projects life cycle and so the harder topics will require possible further study and the testing and live feedback will require more time to produce. This will be accounted for during my planning and preparations of my Sprints.