Final Project

Brief

You have commissioned by Edinburgh College to create Weather station. It is your responsibility to plan, develop, test and evaluate the product.

Project Instructions

The project should be sufficient level of complexity for an SCQF level 6 Unit.

- To develop this project the students should use the theory covered in class, also they should research online to implement it in an appropriate manner.

The project will contain a menu with the next options. The menu text should be display on the leds matrix

➢ The first option the application would read and display the temperate of the environment. The user should have the option to choose the number of measures taken. The user should have the option to save this measures in a document. Also the display should showed an advice image and text depending of the average temperature.

- Temperature 20 degrees or more – Hot
- Temperature between 15 - 20 degrees – Perfect
- Temperature 15 degrees or less – Cold

➢ The second option the application would read and display the humidity of the environment. The user should have the option to choose the number of measures taken. The user should have the option to save this measures in a document. Also the display should showed an advice image and text depending of the average humidity.

➢ The third option the application would read and display the pressure of the environment. The user should have the option to choose the number of measures taken. The user should have the option to save this measures in a document. Also the display should showed an advice image and text depending of the average pressure.

➢ The fourth option is the exit. The app should run until the user select this option

Every option chosen should be display on the matrix led. Also any other information the user should know, it should be displayed on the matrix leds.

Task 1 – Analysis/Design

Taking into account the above brief, create a design document proposing an application for development. This should include a brief outline of the application which must include the application name, application type, application purpose and the target audience. Also identify and justify the resources required, including the hardware required, software needed including the development

environment you have selected to create your app and all the media required. A suitable approach for the media requirements would be to create a table to list them.

- The evidence for this task should be a typed report, submitted digitally, of at least 300 words and should include at least two annotated diagrams or sketches of how the application will look or in the case of a game, of how it will be laid out.

Task 2 - Design

Create an action plan/project plan which includes:

- The key tasks and milestones involved in creating the proposed application.
- Realistic timescales assigned for each task.

This could take the form of a simple action plan, project plan or Gantt chart created using project planning software such as Microsoft Project.

Task 3 – Implementation

Create a basic application prototype using a suitable development platform. The application should be based on the design document created around the project brief in task 1.

As previously stated in Assessment 1, the application should be of a sufficient level of complexity for an SCQF level 6 Unit.

Please note that there is no submission for this task. However, it is important that you ensure that throughout the development process that you maintain a concise record of the process in a development log book. This is to be submitted for task 6.

Task 4 – Testing

Use the test log provide you will thoroughly test that your application functions as expected. Record any errors on the log and then rectify those errors. Once the errors are successfully rectified make sure to indicate so on the log.

Task 5 – Application Submission

The application is to be submitted electronically. Learners will submit a python file containing the full project for the completed application prototype.

Learner will also be required to demonstrate the working application prototype to the assessor.

Task 6 – Development log

Please note that submission for task is an accurate and detailed log.

Important:

You are not be permitted to use large sections of code taken directly from online resources and/or reference/learning materials.