

Computer Science Bridging Work

Task 1 - Wider computing issues and integrated questions

These questions require you to use your technical knowledge in context. Reference any sources that you use to help you.

- a) Compare the Xbox ONE, PS4 Pro and PC as gaming platforms. You must use as much technical detail as possible and reference any evidence presented. Choose how you will present your ideas.
- b) Discuss the benefits and limitations of Virtual Reality
 - i. In business contexts, such as medicine
 - ii. As a gaming tool
 - iii. As an extension to social media

Task 2 - Systems Software

Create a presentation comparing Windows, Linux, iOS, Android (which is based on Linux) and Unix. Discuss the features of each operating system, comparing the benefits and limitations of each.

Note that you can try a basic Unix interface here: <http://www.masswerk.at/jsuix/>

Task 3 – coding challenge

Write a program to:

- a) Ask the user to input
 - i. Their first name
 - ii. Their surname
 - iii. A date, in the format DD/MM/YYYY
- b) The program should then output a customer ID as follows:
 - i. The date in the format YYYYMMDD, then the first three letters of the surname, then the first initial, then the length of their first name. All letters should be in capitals
 - ii. For example, John Smith, 27/05/2017 would give 20170527SMITHJ4
- c) The program should validate any inputs and keep asking for inputs until the user enters correct details or types “quit” at any point

Plan your algorithm first, using a flowchart or pseudocode

Code your algorithm, and provide evidence of both your code and the working output

Create a test plan for your algorithm, including testing your validation with normal, boundary and erroneous data