DRAFT COMP1101 Programming (Black) Summative Assessment 2 DRAFT

Term 2 Programming Exercise Outline

- Submission by 14:00 27 April 2023
- Return after end of exam period
- Contributes 50% of module marks

Subject-specific Knowledge

- A knowledge and understanding of good programming practice (for example, reuse, documentation and style)

Subject-Specific Skills

- an ability to apply reuse by exploiting predefined components
- an ability to use software tools related to programming (programming environments, code management, documentation tools, etc.)
- an ability to apply software development tools and skills in real-world scenarios e.g. open-source projects, hackathons, competitions

Key Skills

- an ability to communicate technical information
- an ability to plan and work independently

Task summary

- Choose a skill to develop
- Choose a collaborative project to contribute to e.g.
    - Open-Source Software
    - hackathon
    - (collaborative) competition
- Record your progress in git with a reflective learning log
- Write a guide for other learners

Skills to develop

- These are examples only
- JavaScript or non-JavaScript

JavaScript Skills

- TypeScript
- React or Vue
- Progressive Web Apps
- d3 with SVG
- p5 and openprocessing
- WebGL / WebAudio / Other APIs
- node-RED

Non-JavaScript Skills

- Django
- Continuous Integration (CI/CD)
- Cloud platforms (AWS / Azure / Google / OpenShift / IBM)
- Rust

Collaborative project ideas

Contribute to Open Source Software

- Choose your favourite project
- Or pick from a list of things up for grabs for first timers
- Or code for social good
- Make sure the project is
    - active (frequent and recent commits, not many open PRs)
    - collaborative (multiple contributors)

Don't need to commit code

For example

- Review/ translate docs and help
- Issue gardening (remove duplicates)
- Answer questions on forums e.g. StackOverflow

- Make a video of installation process

Take part in a hackathon

https://www.hackathons.org.uk/events/

Or do your own thing

- Start a new project
- As long as it is collaborative

Learning log

- Make at least four separate entries reasonably spaced over a period of at least six weeks
- The entries can either be separate files or different sections within the same file.
- They should be written using Markdown and stored in a private repository on GitHub.
- You need to commit and push each entry as you make it so that the dates of the entries are correctly recorded in git.
- You can include images and external links.

For each entry identify

- What you have done (to learn your skill and contribute to your project)
- What you have learned
- Any changes to your goals (or what your initial goals are for the first entry)
- Next step(s) to achieve your goals

The learning log should have a maximum total word count of 1500 words, as measured by the Microsoft VS Code Word Count plugin and have a reasonable balance between the entries.

Assessment criteria (10% each)

- Number, timing and word count of entries (use of git)
- Appropriate development and monitoring of goals
- Evidence of increased understanding
- Evidence of collaboration
- Evidence of criticality about your own actions and assumptions

Guide for learners

Based on your experience, write a Markdown document which explains to somebody else how to master the skill you have been learning.

You don't need to explain the details, but identify and pull together useful resources.

Guide for learners structure

- Motivation (10%): Why learn it?
- Background (10%): What do you need to know before starting? Include links to material to catch up. Make it clear who your target audience is
- Learning materials (10%): Provide appropriate links to external resources with commentary
- Evaluation (10%): How useful is the skill, compared with the effort of learning it? What similar alternatives are there?

A presentation mark (10%) will be awarded on the basis of

- formatting in (GitHub flavored) Markdown
- choice of media (images, video)
- clear writing style appropriate for audience

The guide for learners should have a maximum total word count of 1500 words, as measured by the Microsoft VS Code Word Count plugin

Submission

- Your learning log and your guide for learners should be held within a single private repository on GitHub.
- In the repository you should include a README file including a link to the repository on GitHub.
- You should submit the entire content of the repository as a zip file.

Submission repository

- The repository on GitHub must be accessible by me (username stevenae-ola).
- Allow access to the repository through Settings - Manage Access - Invite a collaborator.
- If you do not allow access you will lose marks.
- Note that this does not affect the access to any code you may write, which would most likely be in a public repository.