

Terminal Application

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To do

- ☐ Production Log due 15 Jul, 2021

Priority: High

Write **TWO** status updates on your application. You must write a status update when:

- you significantly change a feature or your implementation plan at any point
- encounter a significant issue, challenge or roadblock
- are halfway through implementing the features
- prior to / after testing the application

You should submit these logs throughout the course of developing your application.

Each status report should be between 100 - 200 words.

The **Development Log** should be written in markdown and placed in a file named `development-log.md` in the root of your source control repository. Ensure you put the date of the log at the top of each log entry.

Please send your log to your educator as a markdown file as you complete them. This is so we can provide you with feedback.

- ☐ Status update 1 due 12 Jul, 2021

Priority: High

- ☐ Status update 2 due 15 Jul, 2021

Priority: High

- ☐ Implement Application due 16 Jul, 2021

Priority: High

Implement all features in the software development plan you have designed. You must utilise a range of programming concepts and structures using Python 3 such as:

- variables and variable scope
- loops and conditional control structures
- error handling

Apply all style and conventions for the programming language consistently to all code produced.

Creates an application which runs without error and has features that are consistent with the development plan.

- ☐ Help File due 16 Jul, 2021

Priority: High

Design a help file which includes a set of instructions which accurately **describe** how to use and install the application.

You must include:

- steps to install the application
- any dependencies required by the application to operate

- any system/hardware requirements
- a written explanation of the different features of the application

☐ **Test Application** due 15 Jul, 2021

Priority: High

Design TWO tests which check that the application is running as expected.

Each test should:

- cover a different feature of the application
- state what is being tested
- provide at least TWO test cases and the expected results for each test case

An **outline** of the testing procedure and cases should be included with the source code of the application and written in markdown.

☐ **Test 1** due 13 Jul, 2021

Priority: High

☐ **Test 2** due 16 Jul, 2021

Priority: High

☐ **Developer Operations** due 16 Jul, 2021

Priority: High

☐ **Source Control** due 16 Jul, 2021

Priority: High

Utilise source control throughout the development of the application by:

- making regular commits (at least 20 commits) with a commit message that summarises the changes

☐ **Project Management** due 16 Jul, 2021

Priority: High

Utilise a project management platform to track the development of the application by:

- having features itemised and broken down into checklists
- setting deadlines, duration or a time-frame for each feature or task
- prioritising tasks

You must submit screenshots, or a valid export from a project management application to satisfy this requirement. If you are using a non-standard project management application, please discuss with your trainer whether they can access the file. If in doubt, screen capture your project management application and submit screen captures.

☐ **Operating System features** due 15 Jul, 2021

Priority: High

Utilise operating system features to facilitate the building and testing of the application by:

- creating a wrapper script which turns the application into an executable
- **and/or** creating a script which performs the tests you have specified in your design document

A good mark can be achieved by executing either of these two options in a sophisticated fashion. For maximum marks, attempt both.

You must submit a script file in with your source control repository to satisfy this requirement.

☐ **Submit ZIP file** due 17 Jul, 2021

Priority: High

- Your source control repository should be zipped and submitted via the Canvas LMS platform.

- The Software Development Plan must be submitted as a plain-text file using markdown
- Your application, exports from project management software, screenshots, and any other part of your submission should be in your source control repository. Any file you submit should have a filename which reflects what the file is, contain your name, and the requirements code it relates to.

For example:

bill-lastname-T1A2-13-project-mgt-checklist1.jpg

In progress

☐ Implementation Plan

due 10 Jul, 2021

Priority: High

Develop an implementation plan which:

- **outlines** how each feature will be implemented and a checklist of tasks for each feature
- prioritise the implementation of different features, or checklist items within a feature
- provide a deadline, duration or other time indicator for each feature or checklist/checklist-item

You must submit this as a written document, ideally in a tabular format, and it is suggested that you enter your checklists into an appropriate project management application to assist you in completing T1A2-10.

Your checklists for each feature should have at least 5 items.

☐ Software development plan

due 11 Jul, 2021

Priority: High

Design a software development plan for a terminal application

This task should be written in a single document in a report format with headings.

It is suggested that this document is placed in the root of your source control repository, and that you write it in markdown.

NOTE: we do not accept submission of Word, Pages or Open office documents. We will only accept PDFs, or markdown files for written assessments.

☐ Statement of Purpose and Scope

due 11 Jul, 2021

Priority: High

Develop a statement of **purpose** and **scope** for your application. It must include:

- **describe** at a high level what the application will do
- **identify** the problem it will solve and **explain** why you are developing it
- **identify** the target audience
- **explain** how a member of the target audience will use it

☐ Features

due 11 Jul, 2021

Priority: High

Develop a list of features that will be included in the application. It must include:

- at least **THREE features**
- **describe** each feature

Ensure that your features include the following language elements and concepts:

- use of variables and the concept of variable scope
- loops and conditional control structures

- error handling

Note: If the features you described do not require you to use **all** of the above it is **likely** that your application is not sophisticated enough. **Consult with your educator** to check your features are sufficient to address the assessment criteria.

☐ User Interaction and Experience

due 11 Jul, 2021

Priority: High

Develop an **outline** of the user interaction and experience for the application.

Your outline must include:

- how the user **will** find out how to interact with / use each feature
- how the user **will** interact with / use each feature
- how errors **will** be handled by the application and displayed to the user

☐ Control Flow Diagram

due 11 Jul, 2021

Priority: High

Develop a diagram which describes the control flow of your application. Your diagram must:

- show the workflow/logic and/or integration of the features in your application for each feature.
- utilise a recognised format or set of conventions for a control flow diagram, such as UML.

Please provide an image file or PDF of your diagram.

Testing

Complete

☒ ~~Write out requirements in Asana~~

due 9 Jul, 2021

Priority: High

☒ ~~Get github backups working~~

due 9 Jul, 2021

Priority: High

☒ ~~Send idea to Oliver~~

due 8 Jul, 2021

Priority: High

☒ ~~Choose application~~

due 8 Jul, 2021

Priority: High

Brainstorm ideas

What are the minimum viable features?

Nice to have?

Dream?

What sort of errors are you likely to run into?

Scaffold a rough idea of what your program flow might look like

Get this, do this, output this

☒ ~~Gymnastics competition roster~~

☒ ~~Raffle~~

☒ ~~Random password generator~~

☒ ~~Hangman~~