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Task 3: Python Project

ICT112: Programming Fundamentals

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# Introduction

In this report will include the design

# Problem Description

An outline of what problem is being solved -the scope. Also identify what you are including and what you are not.

Discuss any versions you did and would do in the future.

# Assumptions

Identify any assumptions about your project – any modules that need to be imported, any data setup.

# Design

## Top-Level

The program will begin with a menu system, explaining how the menu controls work, and offering a way to restore previous progress or create a new save, for both the rooms and the players. If a new player is created, the initial sequence will be triggered, giving the player a short introduction to what has happened to their character.

Show 2 levels of design.

1. A top-level design of your solution (5 to 10 lines max)
2. A more detailed design that maps into your code.

If you incorporate pictures, screenshots, etc. then label them as figures (example below) and then create a table of figures after the table of contents that shows the label and page number

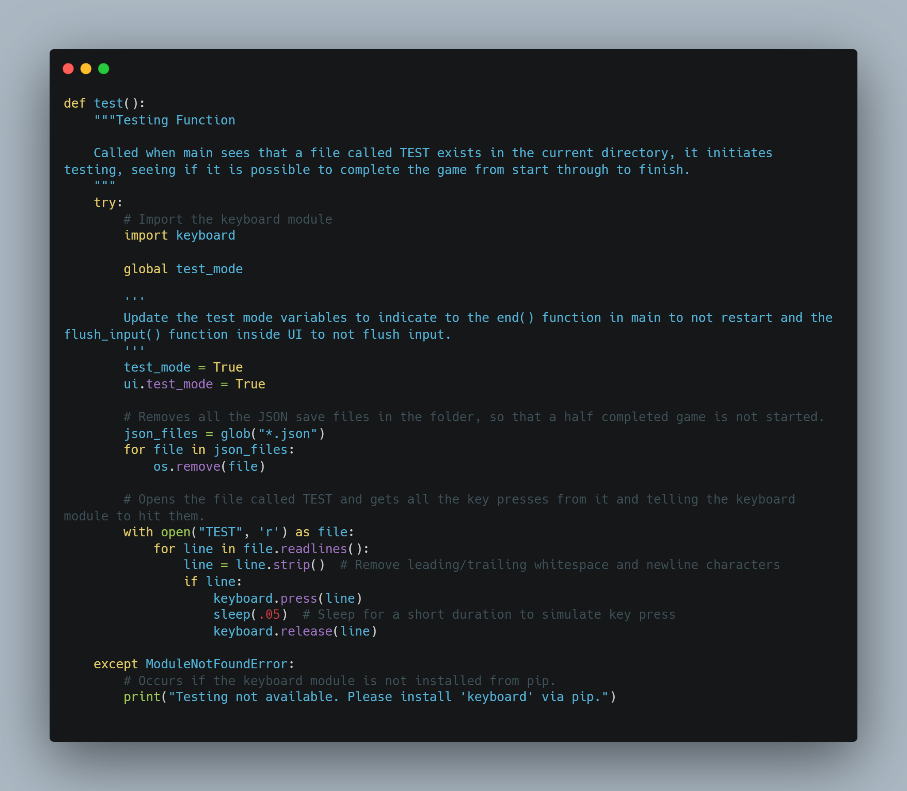
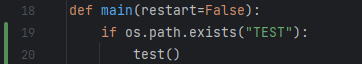
#### Figure 1: Where to caption a figure.

A screenshot of a computer

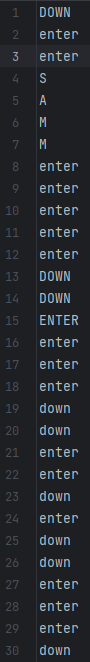
Description automatically generated with medium confidence

# Test Plan

For this design, user testing was used, this is because due to everything centring around the menu system. This menu system makes it hard to utilise unit testing as most functions expect output back from the menu system. So instead, user testing will be utilised, which is providing input to the problem as if there was a user hitting the keyboard. This utilises the [keyboard module](https://pypi.org/project/keyboard/), which in one of the functions of the module, called ‘keyboard.press(key)’, allows for a key as a string to be passed of which it will simulate that key being pressed on the keyboard. Shown below is how it was implemented in this project:



A screenshot of a computer screen

Description automatically generated with low confidence

This function deletes all save files, then loads all the key presses at once. The call to change *ui.test\_mode* to *True, which allows for the ui.flush\_input()* function to not run, which would typically clear out the input buffer, which is a problem for this method of testing as it just fills the input buffer with all the options beforehand.

If the test is successful, it will completely run through the game and finish with it showing ‘*SUCCESS, game tested successfully from start through finish.’*, if the program gets stuck midway through, or errors out, then there is a problem with it.

# References

Any references you may used (not likely)

# Appendices

Any material you wish to show that you have pointed to in your report. Only if required.