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MOD008365 – Introduction to programming

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# Introduction

This report describes the ‘Petrol Station Management’ application written to satisfy the brief provided in “MOD008365 Assignment 0102 2022.docx”. The application written was aimed and succeeds at

# User Guide

# Test Plan:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **TEST** | **DESCRIPTION OF TASKS** | **STEPS TO EXECUTE** | **EXPECTED RESULTS** | **PASS** | **FAIL** | **DEFECT / COMMENTS / ADDITIONS** |
| **APPLICATION 1:** | |  |  |  |  |  |
| 1 | Does the Program Start? | Perform “Start Debugging” from within VS Code | Console Window Opens, displaying start screen. |  |  | Pressing the Escape key (Esc) will progress the program directly to the exit screen, where any keypress will close the console window. |
| 2 | Will the Program Progress to a “Shift”? | Press the Enter key | Console displays “Shift” Screen, the “Vehicle Queue” and “Vehicle Pool” being to fill up. |  |  | For this limited scope demonstration, only 81 vehicles are generated in total. |
| 3 | Does Pump Assignment Work? | Press **any** of the number keys, from 1 to 9 | If the Vehicle Queue has at least 1 car in it, it will be assigned to the corresponding pump, which will switch from “OPEN” to “BUSY” |  |  | After 8 seconds from the pump becoming “BUSY”, it will switch back to “OPEN” and the vehicles serviced, and fuel dispensed counters will increase. |
| 4 | Can you exit program at any point? | Press the Escape (Esc) key | Program will go to exit screen, where any keypress will close the console window |  |  | N/A |

|  |  |
| --- | --- |
| **GENERAL QUESTIONS / COMMENTS** | |
| Test 2: | Due to how the program loads, it may take longer than 1.5 seconds for the first vehicle to generate and be transferred to the que, if the user progresses from the basic start screen particularly quickly. Vehicle generation after that point has been consistent during in-house testing. |

# Bibliography:

Many thanks are given to the editor(s) and contributors of the learn.microsoft.com site, for their copious if sometimes opaque examples and explanations.

I mainly frequented the C# and .Net documentation, with this link as an initial starting point: [C# docs - get started, tutorials, reference. | Microsoft Learn](https://learn.microsoft.com/en-us/dotnet/csharp/).

Additional thanks are given to my Father, my course lecturer, and my module/course-mates, for the support, patience and brainstorming opportunities & sanity checks they provided when writing my code for this Assignment.