Intro to Programming

ASSESSMENT 2: Utility App

| Contribution towards overall module mark | 60% |
| --- | --- |
| Date set | November 15, 2023 |
| Marked work returned by | Within 3 weeks of submission |
| DEADLINES | Deadline : January 10, 2024 – 23:59 |

**Assessment 2: Utility App**

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| **Github Repository Name** | JanelSkrt |
| **Github Repository Link** | [assessments-JanelSkrt/Assessment 2 at main · IntroToProgramming-CCL4/assessments-JanelSkrt (github.com)](https://github.com/IntroToProgramming-CCL4/assessments-JanelSkrt/tree/main/Assessment 2) |
| **Repository Screen Shot** |  |

**The Development Document**

In the world of programming, being able to create useful and interactive applications is a validation of a developer’s skills. In this situation, a vending machine simulation serves as an excellent project to showcase the functional application of programming concepts. This essay I will tackle analyzes the step-by-step process of creating a simple vending machine in Python, detailing the code to understand its structure and purpose.

•First of all, I want to explain how I made this vending machine, I started by listing and coding all the items available in the machine. Each item is represented by a code, name, and its price. This step is crucial as it establishes a clear inventory, providing the foundation for user interactions.

• My machine will promptly ask you to enter the code of the item you want to purchase, that allows users to input their selections easily.

• If you wish to purchase more items in a single transaction, users can just continue adding items to their cart by entering the corresponding item codes consecutively. This makes my machine user-friendly for the customers who want to buy more than one item.

• However, if you enter an incorrect code, my machine will display this message on the screen: "Invalid code. Please enter a valid item". This feedback system guides users and helps them correct their input, improving their overall experience.

• After finishing the purchase process, users are allowed to type ‘x’ to indicate that the user has finished adding items to their cart. The exit strategy simplifies the user’s experience providing a clear way for customers to conclude their transactions.

• After adding all the items to the cart, my machine will calculate and display the total price. This will allow users to review their selections before proceeding with the transaction.

I made this step-by-step approach demonstrates thoughtful consideration of user interactions and potential scenarios, making my vending machine user-friendly. The error handling contributes to a positive user experience.

• After that, my vending machine will print out the total price of each and every item you have added to your cart, and then it will tell you to ”Insert exact amount or more” to end the purchase process, it will automatically print out the receipt showing how much you have spent, and if you insert extra money, it will show you how much your change is.

• I also added comments on every line of my machine to explain the purpose of that code.

When I first heard about python programming, I knew that it was hard, but I actually enjoyed learning this type of subject. I’ve heard a rumor that programming is the hardest subject here in my course, yes, they were right especially if you are not paying attention to your professor when they are teaching, when we first had our lecture about python programming it's not that hard yet but when time passed by it is getting harder and harder until we reach to the point that we are getting stressed out, but before that we don’t have any idea that programming will take us so far. On our first couple of months learning programming, me and my classmates were just chilling around because its not that hard yet, our prof is just teaching us about the basics like the inputs lists etc etc, then here comes the scariest part,

it all started when sir announced that we are tasked to do a vending machine, we all knew that this kind of task is very very hard, and we are right, it is hard, it took us like months just to finish the vending machine, moving forward, we are finally finished.

I also made a flowchart using my vending machine code, when we say flowchart it will always starts with the start button inside the oval shape and the end button is oval shape as well while parallelogram shape represents the input and output, so here is how my flowchart works, you can see a start button inside the oval shape followed by items displayed (square/rectangle shape) and then it will ask the user if they would like to add items in their cart (diamond shape) if the user select No it will automatically End (oval shape) but if the user select Yes my chart will tell you to Enter code (parallelogram shape) after that it will ask the user if they would like to add more items (diamond shape) if the user select No, It will tell the user to Insert exact amount or more (parallelogram shape) and then it will automatically print out the receipt (parallelogram shape) then it will end, but if the user select Yes, it will ask for another item code (parallelogram shape) and if the user is done entering the code, the same thing will happen, it will tell the user how much is the total amount they have to pay and ask for their money again (parallelogram shape) and then it will print out the user’s receipt again (parallelogram shape) and last is the End (oval shape).

I just want to thank Mr. Oliver for being the best prof we had, I wish that he is still the one who will teach us in the next school year, we couldn’t have done this if he is not teaching us very well, no one can replace Mr. Oliver for being the best, the way he talk and communicate with us, I cant even remember the time he got angry because that never happened at least once, I guess if other prof taught us programming it will make the subject more harder. That’s all sir, Thank you very much! Hope to see you next school year.