**Pseudocode for Auto Shop**

Create dictionary for value of car wash options

Assign option 1 and 2 to open string

Assign Total to Zero to keep integer value

Display options available and price by Davy’s auto shop

Assign value to variables in dictionary (#including ‘- == 0’)

Prompt user input for option 1 and 2 from menu

WHILE both input is not ‘-‘ : (# While loop will allow program to check multiple times for input)

IF two options inputted: (#Use the nested IF loop to check for completed program)

Display service 1 and service 2 that were selected

BREAK (# Use break to end loop and terminate program)

ELSE:

Retrieve cost of selected service 1 and service 2 including ‘-‘ ( # Even if only one service selected add total cost )

ENDWHILE (# End while loop)

Display cost of service 1 and service 2

END

While writing this control structure for the activity from Module Three, I continuously found myself having to go back and paraphrase what I was trying to say. Now that I am beginning to understand control structures better, it is getting easier to put my thoughts to paper. I had to keep the best practice in mind, “Simple is better than complex.” By going back and trying to paraphrase my thoughts I found myself writing more clearly and directly. “Remembering to write for people and not computers” is another best practice that I found which I will begin keeping in mind while tackling tasks. This means keeping consistency throughout the code, as well using original names, that are concise, to ensure it easy to follow along for other readers.

When it came to the decision of how I would write out the control structure, there were many possible routes that could have been taken to create the annotations that were used. I decided to begin by opening with a while loop to check for the null value of ‘-‘ in the input. While both options did not have zero input, the program would run gather the requested services and display the total cost for the user. From this point we can initiate the IF loop to check for two selected services, to break the program and finalize the total. Otherwise the else will check for an option 1 selection, or an option 2 selection and terminate the program as well. Using the control structures in this manner will allow the program to determine the necessary information, without running an infinite loop searching for the selected options.

**Reflection**

The topic I chose to focus on was robotics. Robotics is the engineering side of technology that deals with the creation of construction and operations for robots. This means writing the algorithm or code that the robots will follow to complete tasks. The potential applications for robotics are seemingly endless in this day-and-age. One company who is leading the way in innovation is Boston Dynamics. They have multiple revolutionary designs that will soon be impacting many different industries within the coming years. Manual labor will soon be replaced by highly efficient and cost-effective robots.

Robotics will affect a wide variety of industries within the coming years, in fact, they already have robots that are flipping hamburgers for fast food chains. To think that the implementation of robotics in industry will not be happening within our lifetimes, would be foolish. The future of robotics is tightly wound with the future of humans, as we will continue seeing growing integration in all industries. It is not only limited to industrial revolution though, robotics will affect the medical field, hospitality, and the food service industry.

Occupational opportunities are rapidly becoming available for anyone in the robotics field. After doing research on the opportunities available to a student like me, I have decided that robotic engineering is a field that deeply interests me. While I was on the website learning more about Boston Dynamics robots, I also browsed through the available jobs link on their website. With a Bachelor’s Degree in Computer Science, you can apply for an entry level software engineer job and get a foot in the door to begin your career. The best way to prepare for a career in this field would be to constantly practice coding, to work on making it your “first” language. For someone like me, coming from a background lacking experience, this would be a good first step to take towards my career. Eventually leading me towards my goal of starting my own national defense robotics company.

**References:**

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