Assignment 1 Report

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INFO 653 – Back-end Development

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Contents

I. Introduction

This report explains the development of a Coffee Ordering System using JavaScript and Node.js. The program allows users to select a coffee type and get its price. It includes conditional statements, loops, error handling, and user input handling using the readline module.

II. Program Overview

The program consists of the following main functionalities:

1. **User Input Handling**: Uses readline to take user input in a command-line interface.
2. **Conditional Statements**: Uses a switch statement to determine coffee prices.
3. **Loops**: The program uses a **while loop** to keep running until the user exits. A **jumping statement (continue)** is used to handle invalid input without restarting the program.
4. **Error Handling**: Ensures valid coffee type selection and handles invalid inputs.

III. Code Explanation

a. Setting Up

- The program imports the readline module to handle user input.
- It creates an interface for reading user commands in the terminal.
- The coffee menu is stored in an object, allowing users to choose by name or number.

b. User Input

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- It creates an interface for reading user commands in the terminal.
- The coffee menu is stored in an object, allowing users to choose by name or number.

c. Program Logic

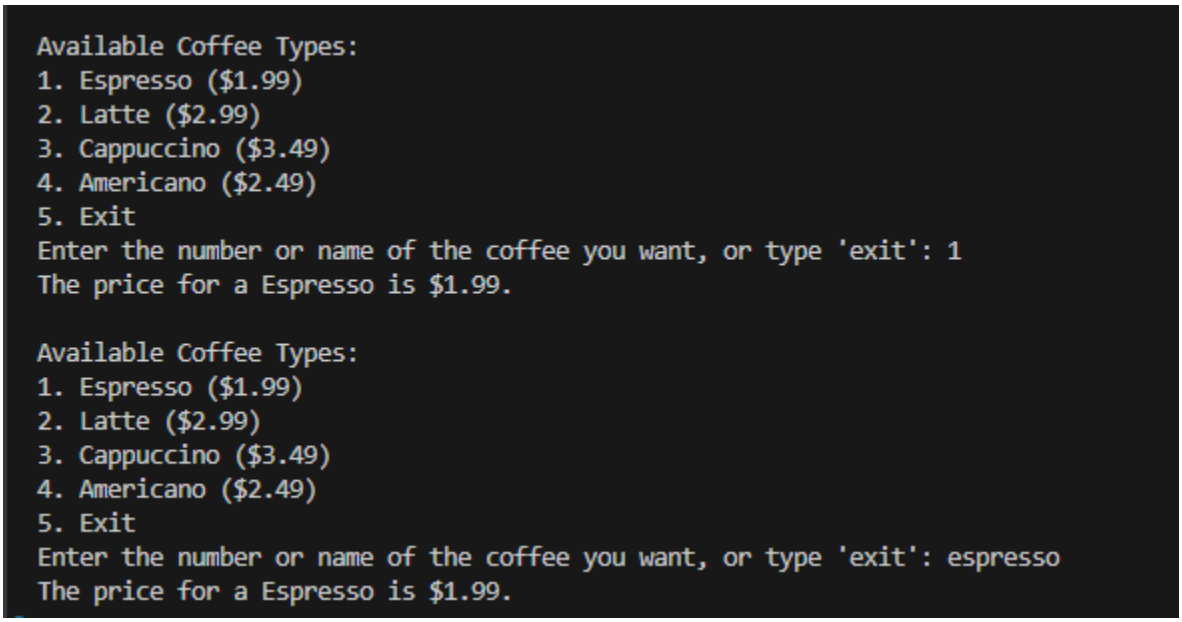
- A switch statement determines the price based on the coffee type.
- The program uses functions to get coffee details, matching both names and numbers.
- The program uses a **while loop** to continuously ask the user for input. If an invalid input is entered, a **jumping statement (`continue`)** ensures the user is prompted again without restarting the program.

d. Error Handling

- The program is wrapped in a **try-catch block** to handle unexpected errors.
- If the user enters an invalid coffee type (example "10"), an error message appears: "Invalid selection: '10'. Please enter a valid coffee number or name."

  The program loops back, allowing the user to retry instead of exiting immediately.

IV. Program Output



```
Available Coffee Types:
1. Espresso ($1.99)
2. Latte ($2.99)
3. Cappuccino ($3.49)
4. Americano ($2.49)
5. Exit
Enter the number or name of the coffee you want, or type 'exit': 5
Invalid selection: '5'. Please enter a valid coffee number or name.

Available Coffee Types:
1. Espresso ($1.99)
2. Latte ($2.99)
3. Cappuccino ($3.49)
4. Americano ($2.49)
5. Exit
Enter the number or name of the coffee you want, or type 'exit': exit

You ordered:
1. Espresso
2. Espresso
Thank you for using our coffee ordering system!
```

Github: https://github.com/Kawinnnnnn/INF653-assignment1