Assignment 4.1

Subject: PPWJ (CSE 3838)
Session: Sep 2025 to Jan 2026
Branch: CSIT
Section: All
Course Outcomes: CO2

Learning Levels: Remembering (L1), Understanding (L2), Application (L3), and Analysis (L4)

Q No.	Questions	Learning Levels
Q1	A government portal is being developed to check whether a citizen is eligible to vote in elections. The system should take the person's age as input. If the age is 18 or above, the system should display a message: "You are eligible to vote." Otherwise, it should display: "You are not eligible to vote yet." Write a JavaScript program to implement this eligibility check using comparison operators and an if-else statement.	L2
Q2	2. A cinema booking system is being developed to calculate the ticket price for customers based on their age. The system should also categorize customers into groups. The rules are as follows: -If the age is below 12, the customer is a Child and the ticket price is Rs.5. -If the age is 12 to below 18, the customer is a Teen and the ticket price is Rs.10. -If the age is 18 to below 60, the customer is an Adult and the ticket price is Rs.20. -If the age is 60 or above, the customer is a Senior and the ticket price is Rs.15. Write a JavaScript program that: -Takes the user's age as input. -Calculates the correct ticket price based on the rules. -Determines the user's category (Child, Teen, Adult, Senior). -Displays both the ticket price and the category clearly to the user.	L3

Q3	3. A shopping mall offers discounts based on the total purchase amount: -Purchases 100 or more → discount of 20 -Purchases 50 or more (but less than 100) → discount of 10 -Purchases below 50 → no discount Write a JavaScript program to calculate the discount, final price, and display the customer's savings. Analyze and extend the program by handling invalid inputs (e.g., negative purchase amounts) and print "Invalid input! Purchase amount cannot be negative."	L2,L3
Q4	Imagine a school sports event: Students will be selected for a special relay race only if their roll number is divisible by both 3 and 5. So if a student's roll number is 30, 45, 60, they qualify. If it's just divisible by 3 or just by 5, they don't qualify. This is exactly how the program works — it checks if a number meets both conditions at once.	L3
Q5	To write a JavaScript program that calculates the total electricity bill based on the unit range selected by the user using a `switch` case statement.Develop a program that allows the user to select a range of electricity units consumed and calculates the total bill amount according to the following tariff rates:	L3

Case	Unit Range	Rate per Unit
1	0 – 100 units	5 per unit
2	101 – 200 units	7 per unit
3	Above 200 units	10 per unit

The program should:

1. Accept user input for case selection and total units consumed.

2. Use a `switch` case to determine the correct rate.

3. Calculate and display the total electricity bill.

Q6	To write a JavaScript program that reads the first character of a ship's serial number and displays the corresponding ship class using a `switch` case statement.Develop a program that takes the first letter of a ship's serial number as input and prints the type of ship according to the following classification:	L3

Ship Code	Ship Class
B or b	Battleship
C or c	Cruiser
D or d	Destroyer
F or f	Frigate
Any other	Unknown

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