

Theory Assignment

Question 1: What is Control Flow in JavaScript?

- ❖ **Control flow** determines the order in which code runs. It uses conditions to decide which block of code to execute.

How if-else Works

- ❖ Executes code based on conditions.

Example:

```
let age = 18;
if (age >= 18) {
  console.log("You can vote!");
} else {
  console.log("You cannot vote.");
}
```

- If the condition is true, the if block runs.
 - If false, the else block runs.
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Question 2: How switch Statements Work

- ❖ **Switch** is used to compare a value against multiple cases.
- **Example:**

```
let day = 1;
switch (day) {
  case 1:
    console.log("Monday");
    break;
  case 2:
    console.log("Tuesday");
    break;
  case 3:
    console.log("Wednesday");
    break;
```

default:

```
console.log("Other day");
```

```
}
```

- ✓ **case:** Defines a condition to match.
- ✓ **break:** Stops execution after a match.
- ✓ **default:** Runs if no case matches.

❖ **When to Use switch Instead of if-else?**

- ✓ Use switch when checking **multiple specific values**.
- ✓ Use if-else for **range-based or complex conditions**.