

3. Control Flow

(a) Conditional Statements.

(i) if Statement

- (1) checks a condition
- (2) If the condition is true, executes the code block.
- (3) If not, the program skips it.

Syntax :-

```
if (condition) {  
    // code to execute  
}
```

(ii) if-else condition

- (1) checks a condition
- (2) If the condition is true, executes the first block.
- (3) If false, executes the else block.

Syntax :-

```
if (condition) {  
    // code if true  
} else {  
    // code if false  
}
```

(iii) else if Ladder

- (1) Used for multiple conditions
- (2) checks each if or else if until one is true
- (3) If none are true, the else block runs.

Syntax :-

```
if (condition 1) {  
    // code  
} else if (condition 2) {  
    // code  
} else {  
    // default code  
}
```


Switch Condition

Best when you have multiple fixed values to match, match.
Cleaner than writing many if-else statements.

Syntax :

```
Switch (variable) {
```

```
    case value1:
```

```
        //code
```

```
        break;
```

```
    case value2:
```

```
        //code
```

```
        break;
```

```
    default:
```

```
        //code
```

```
}
```

Use Cases of Conditional Statements.

Features

Use Cases

if

Run code if a specific condition is true.

if-else

choose between two possibilities

else if

choose from multiple conditions.

Switch

Match a variable against fixed values
(e.g. menu options, days).