

## Selection statements

Selection statements are used when a program needs to **make a decision**.

- **If statement**

Used when something should happen only if a condition is true.

*Example:*

If a student's marks are above 50, the program prints “**Pass**”.

- **If–else statement**

Used when the program must choose between two options.

*Example:*

If it is raining, the program prints “**Carry an umbrella**”, otherwise it prints “**Enjoy the day**”.

- **If–else if–else statement**

Used when there are several conditions.

*Example:*

If marks are 80 and above, give grade A;  
if they are 60 and above, give grade B;  
otherwise give grade C.

- **Switch statement**

Used when there are many fixed choices.

*Example:*

If the user enters 1, show “Deposit”;  
if 2, show “Withdraw”;  
if 3, show “Exit”.

## Iteration statements

Iteration statements are used when a program needs to **repeat an action**.

- **For loop**

Used when the number of repetitions is known.

*Example:*

Print numbers from 1 to 10.

- **While loop**

Used when repetition depends on a condition.

*Example:*

Keep asking for a password until the correct one is entered.

- **Do–while loop**

Used when an action must happen at least once.

*Example:*

Display a menu at least once and repeat until the user chooses “Exit”.

## Conclusion

Selection statements help a program **choose what to do**, while iteration statements help it **repeat tasks** until a condition is met.