**Core Java - Assignment**

**Module - 1**

1. **Control Flow Statements :**

**Theory : -**

1. If-Else Statements :

-> Normally, it is used when you want to perform some logic based on condition. When the condition get true or false based on what logic you have made. It will run block of code based on you conditions.

-> there are multiple types of control statements in if else:

1. Single if
2. Nested if
3. If else
4. If else if else
5. Single if :

-> when you want that if condition matches with if then if block should executed.

-> for example, If you are 18 then you can vote.

1. Nested if :

-> when one condition matches then you want to check one more condition in if block during that time you should use if block.

-> For ex. Now you are 18 then you can vote and you can drive a car.

1. If else :

-> when you use if statement and you know that if if block not executed then something else should happen if condition gets wrong.

->For ex. If you are 18 then you are adult and if not then you are minor.

1. If else if else :

-> when if block is not executed then you can use else if instead of nested if. It will check your other condition but one thing you should know without if there is no else if block executed it will throw an error.

-> Ex. When you get marks of student then you want to check grades of students based on their performance. You can use else if instead of nested if it will be much more complicated.

1. Switch case statements:

-> When you want check cases like when particular case match then you want to execute that case.

-> it is very much similar to if else if else but in this statement it checks case instead of condition.

-> there can be lots of cases and one default case which will execute if no cases match.

1. Loops (do while, while , For) :

-> First For Loop:

-> in For loop firstly you have to initialize with something then it will check condition after that execute statement and it will be incremented by 1 in last then again it will check condition and run until that condition get false .

-> While :

-> In while loop initialize outside while and while only check condition if it matches then it will execute and inside while you write increment statement before end of block code. Otherwise condition get true then it will go into infinite loop.

-> Do while :

-> In do while loop when you want to execute code at least one time then you use do while to execute code for once.

1. Break and continue keywords:

-> Break keywords mostly used in case and sometime in if blocks when condition matches then execute particular code and after that it escape from that particular block.

-> Mainly when in switch cases when particular case match with some case then it will return true to other cases also executes and without break .

-> continue keyword is used when in condition and you want without breaking you want to jump in next loop on that time you use Continue keyword.