Assignment: 2: Branching and Looping

<Q.1>: Compare the use of if-statement with use of conditional operator.

Ans:

if-else statement	Conditional operator
if else statement is used when we have multiple conditions and want to execute different blocks of code based on these conditions.	Conditional operator evaluates a condition and returns one of the two expressions based on true or false condition.

Syntax:
 if (condition) {
   if-block statements;
 } else {
 else-block statements; }
	Syntax:
	 condition ? expression 1: expression 2.

<Q.2>: What is the purpose of default keyword used in switch statement? Is it possible to compare if-else ladder with switch case?

Ans.

Default keyword in switch is used as to provide fallback option.

It is executed if none of the switch case statements are not executed.
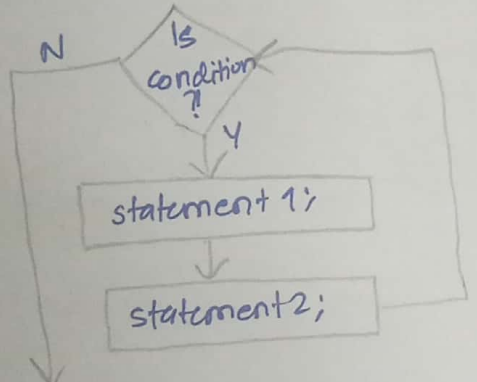
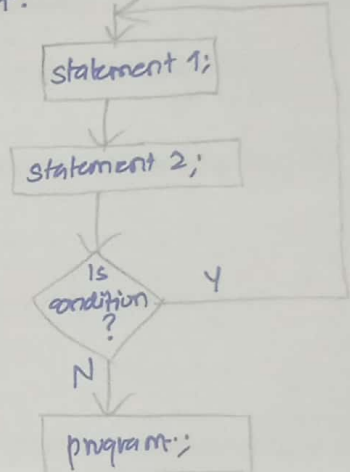Yes, we can compare if-else ladder and switch-case.

if else ladder	switch case.
statement is executed based on the condition inside the if-else ladder	switch case executes statement per uses decision.
Need to use multiple statement	single statement for many decision.
only one statement is executed.	multiple statements are executed.
It is tough to edit.	It is easy to edit.

Syntax:
 	
if (condition 1) {
  if block statements;
} elseif (condition 2) {
 	
elseif 1 block } statements;
  } else if (condition 3) {
  elseif 2 block statements;
 	
⋮
 	
}else{
  else block statements; }
	Syntax:
	
	switch (expression) {
	case value 1:
	  1 block statement;
	  break;
	
	case value 2;
	  2 block statement;
	  break;
	
	⋮
	
	default :
	default block statements;
	break; }

<Q.37: What is the purpose of do-while statement? How does it differ from while statement?

Ans:

The purpose of do while statement is to execute iteration until the given condition is not reached and the finite number of length of iteration is not known. It executes loop atleast once.

The differences between do-while and while statement are as follows:

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while loop	do-while loop
entry - controlled loop	exit -controlled loop
It is not executed if the condition is not met.	It is executed atleast once even though condition is false.

Syntax:
 while (condition) {
   while block statements;
 }
	Syntax:
	 do {
	 do-block statements;
	 } while (condition);

flowchart: N Is condition ? Y statement 1; statement 2;	flowchart: statement 1; statement 2; Is condition ? Y N program;

⟨Q·47⟩: What is the purpose of break and continue statement ?

Ans:

The purpose of break statement is to exit the loop completely when encountered.

The purpose of continue statement is to skip the step of loop when encountered but not exit the loop completely.