Online lecture notes Paper Name: Programming Language 'C' Paper Code: 1BCA4 Topic: Jump Statement – break, continue & goto

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Jump Statement

break, continue and goto keywords of 'C' programming language is used as jump statement. The jump statement in 'C' are used to direct the flow of execution to the required part of the program. The normal flow of execution when enters in a function body, then the set of instructions written line by line in the program get executed. When the flow of execution enters into the switch-case body, then the value of the variable is checked with the case value coded in the program and when a case value is matched with the variable's value then the set of statements written in the right side of colon (:) operator gets executed. This means that while processing the switch-case construct coded in the program the flow of execution can remain either to the left side of colon (:) or to the right side. When the flow of execution enters into a loop body then the set of instructions written inside the loop body are executed line by line.

break:- In the syntax of switch-case selection control structure (construct), break statement has been used earlier. This break statement inside the switch-case selection construct directs the flow of execution outside the switch-case body. A case statement is written below another case statement and the default statement is written below all case statement. When the value of the variable used in switch-case construct matches with the value of the case statement, it is required to execute only those set of statements that are coded for the case statement and hence the break statement inside the case statement is written before beginning any other case statement.

break statement is used inside loop construct to direct the flow of execution outside the loop in which it has been coded. As stated earlier about nested loop and nesting of loop is coded according to the requirement or necessity of problem, a break statement can also be used inside the inner loop. If a break statement is used inside an inner loop then it will cause the flow of execution to be directed outside the inner loop.

continue statement is used inside loop construct to direct the flow of execution to the beginning of the loop. continue statement inside while loop will cause the flow of execution to be directed to the condition used. Inside do-while loop, it will cause the flow of execution to be directed to the first statement whereas inside for loop, it causes flow of execution to be directed to the new_value statement of the loop.

goto statement is used inside a function body to direct the flow of execution to any part of the function body. It is also known as labeled statement. The syntax to use it is:

```
<Label_Name>:
{
<statement>;
-----;
}
```

```
if(<Condition>)
{
  <statement>;
  .....;
goto <Label_Name>;
}
```

If the label (<Label_Name>) appears above the goto statement then some set of statements get executed repeatedly. If the label (<Label_Name>) appears below the goto statement some set of statements get skipped.

Remember: jump statements (break, continue and goto must be the last statement in the body in which they are coded.