Switch case and GOTO Statement

The statements which are used to execute only specific block of statements in a series of blocks are called case control statements.

There are 4 types of case control statements in C language. They are,

1. switch
2. break
3. continue
4. goto

1. switch case statement in C:

- Switch case statements are used to execute only specific case statements based on the switch expression.
- Below is the syntax for switch case statement.

```
switch (expression)
{
case label1:   statements;
break;
case label2:   statements;
break;
default:    statements;
break;
}
```

Example program for switch..case statement in C:

```
#include <stdio.h>
int main ()
{
int value = 3;
switch(value)
{
case 1:
printf("Value is 1 \n" );
break;
case 2:
printf("Value is 2 \n" );
break;
case 3:
printf("Value is 3 \n" );
break;
case 4:
printf("Value is 4 \n" );
break;
default :
printf("Value is other than 1,2,3,4 \n" );
}
```

```
return 0;
}
```

Output:

```
Value is 3
```

2. break statement in C:

- Break statement is used to terminate the while loops, switch case loops and for loops from the subsequent execution.
- Syntax: break;

Example program for break statement in C:

```
#include <stdio.h>
int main()
{
int i;

for(i=0;i<10;i++)
{
if(i==5)
{
printf("\nComing out of for loop when i = 5");
break;
}
printf("%d ",i);
}
}
```

Output:

```
0 1 2 3 4
Coming out of for loop when i = 5
```

3. Continue statement in C:

- Continue statement is used to continue the next iteration of for loop, while loop and do-while loops. So, the remaining statements are skipped within the loop for that particular iteration.
- Syntax : continue;

Example program for continue statement in C:

```
#include <stdio.h>
int main()
{
int i;
for(i=0;i<10;i++)
{
```

```
if(i==5 || i==6)
{
printf("\nSkipping %d from display using " \
"continue statement \n",i);
continue;
}
printf("%d ",i);
}
}
```

Output:

```
0 1 2 3 4
Skipping 5 from display using continue statement
Skipping 6 from display using continue statement
7 8 9
```

4. goto statement in C:

- goto statements is used to transfer the normal flow of a program to the specified label in the program.
- Below is the syntax for goto statement in C.

```
{
      .......
      go to label;
      .......
      .......
      LABEL:
      statements;
}
```

Example program for goto statement in C:

```
#include <stdio.h>
int main()
{
int i;
for(i=0;i<10;i++)
{
if(i==5)
{
printf("\nWe are using goto statement when i = 5");
goto HAI;
}
printf("%d ",i);
}
HAI : printf("\nNow, we are inside label name \"hai\" \n");
}
```

Output:

```
0 1 2 3 4
We are using goto statement when i = 5
Now, we are inside label name “hai”
```