SWITCH

It is a selection statement.

It is used to execute one case of statements from no of cases according to the switch expression value matched with case expression value. In switch the program is jumped to matching case like the go to label.

It is similar to ladder if in working style.

Switch performance is high when compared with ladder if because of it jumps to matching case.

Syntax:

```
switch(expression)
{
    constexp1:
case
statements;
break;
      constexp2:
case
statements;
break;
case constexpN:
statements;
break;
[ default: statements; ]
}
Here switch, case, break, default are the keywords.
In between case and case expression / value at least
one space should be provided. Otherwise it will
become a label.
```

case expression/value should be a constant integer/char value. i.e. float / string not allowed.

One case contains one expression only.

case expression doesn't contain any separators
like, etc.

case expression should be end with: (colon)

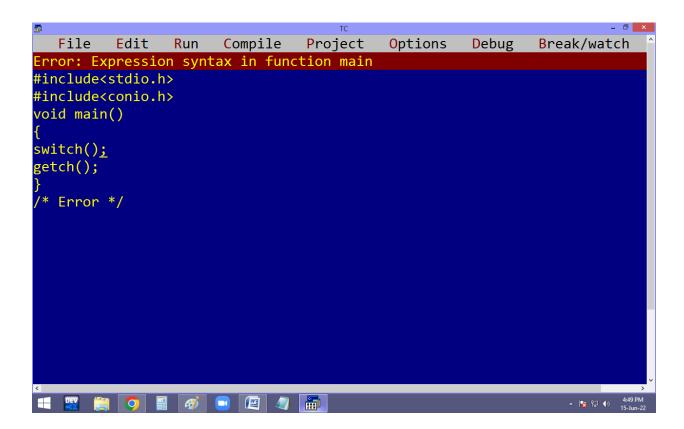
Each case should be separated with break keyword. Otherwise remaining cases also executed.

Duplicate cases not allowed.

default is similar to the else and all cases are failed then default statements are executed. Default is optional and we can declare it anywhere in our switch.

Outside case expressions not considered in switch.

```
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Line 8 Col 19 Insert Indent Tab Fill Unindent * E:NONAME.C
#include<stdio.h>
#include<conio.h>
void main()
{
switch(1);
getch();
}
/* blank screen */
```



```
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Error: Case outside of switch in function main
#include<stdio.h>
#include<conio.h>
void main()
case 0: printf("Hi");
getch();
/* Error */
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```

```
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Error: Expression syntax in function main

#include<stdio.h>
#include<conio.h>
void main()
{
switch(1)
case : printf("Hi");
getch();
}
/* Error */
```

```
Debug
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Error: Case outside of switch in function main
#include<stdio.h>
#include<conio.h>
void main()
switch(1)
default: printf("Hello");
case 0: printf("Hi"); break;
getch();
/* Error */
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```

```
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Error: Misplaced break in function main

#include<stdio.h>
#include<conio.h>
void main()
{

switch(1)

case 1: printf("Hi"); break;
getch();
}

/* Error */
```

```
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Line 8 Col 6 Insert Indent Tab Fill Unindent * E:NONAME.C
#include<stdio.h>
#include<conio.h>
void main()
{
switch(1)
case 1: printf("Hi"); getch();
}
/* Hi */
```

```
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     Line 12 Col 11 Insert Indent Tab Fill Unindent * E:NONAME.C
#include<stdio.h>
#include<conio.h>
void main()
switch(1)
default: printf("Hello");
case 0: printf("Hi");break;
getch();
/* HelloHi */
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```

```
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     Line 12
              Col 9
#include<stdio.h>
#include<conio.h>
void main()
switch(1)
default: printf("Hello");break;
case 0: printf("Hi");break;
getch();
/* Hello */
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```

```
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     Line 14
#include<stdio.h>
#include<conio.h>
void main()
switch(1)
case1: printf("Hi");break;
case 2: printf("Bye");break;
default: printf("Hello");
getch();
/* Hello */
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```

```
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Error: Case outside of switch in function main

#include<stdio.h>
#include<conio.h>
void main()
{
    switch(5-3);
    {
        case 1: printf("Hi"); break;
        case 2: printf("Bye"); break;
        default: printf("Hello");
    }
    getch();
}

/* Error */
```

```
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     Line 13
#include<stdio.h>
#include<conio.h>
void main()
switch(5-3)
case 1*2: printf("Hi");break;
case 5/3: printf("Bye");break;
default: printf("Hello");
getch();
/* Hi */
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```

```
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Error: Duplicate case in function main

#include<stdio.h>
#include<conio.h>
void main()
{

switch(5-3)
{

case 1*2: printf("Hi");break;

case 5/2: printf("Bye");break;

default: printf("Hello");
}

getch();
}

/* Error */
```

```
File Edit
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Error: Expression syntax in function main
#include<stdio.h>
#include<conio.h>
void main()
switch(3)
case >0: printf("+Ve");break;
case <0: printf("-Ve");break;</pre>
default: printf("Zero");
getch();
/* Error */
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```

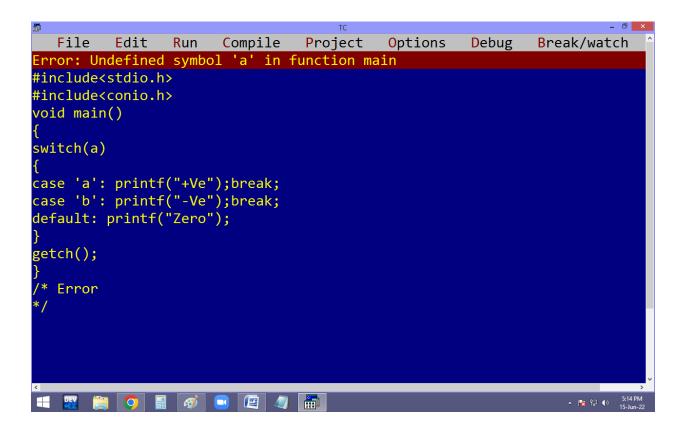
```
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     Line 13
#include<stdio.h>
#include<conio.h>
void main()
switch(3)
case 3>0: printf("+Ve");break;
case 3<0: printf("-Ve");break;</pre>
default: printf("Zero");
getch();
/* Zero */
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```

```
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     Line 13 Col 4 Insert Indent Tab Fill Unindent * E:NONAME.C
#include<stdio.h>
#include<conio.h>
void main()
switch('o')
case '0': printf("+Ve");break;
case 0 : printf("-Ve");break;
default: printf("Zero");
getch();
/* <u>Z</u>ero */
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```

```
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     Line 13
#include<stdio.h>
#include<conio.h>
void main()
switch('0')
case '0': printf("+Ve");break;
case 0 : printf("-Ve");break;
default: printf("Zero");
getch();
/* +Ve */
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```

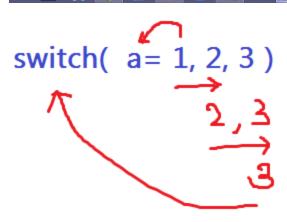
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              Col 8 Insert Indent Tab Fill Unindent * E:NONAME.C
     Line 7
#include<stdio.h>
#include<conio.h>
void main()
switch(4)
case 1-9: printf("+Ve");break;
case 10-15: printf("-Ve");break;
default: printf("Zero");
getch();
/* Zero */
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```

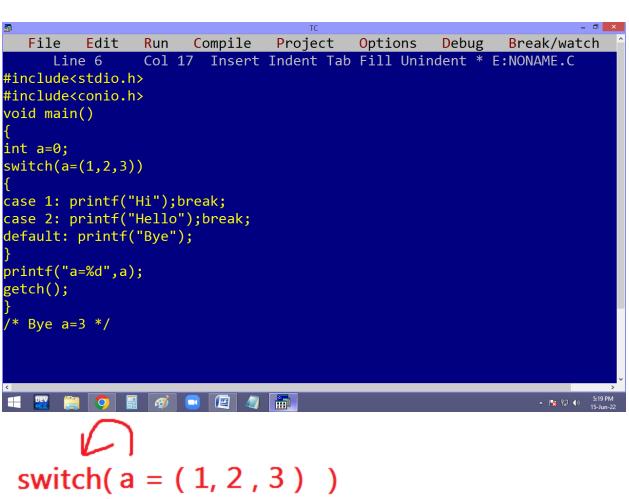
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     Line 14
#include<stdio.h>
#include<conio.h>
void main()
switch(1.2)
case 1: printf("+Ve");break;
case 2: printf("-Ve");break;
default: printf("Zero");
getch();
/* +Ve
In C++ Error
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```

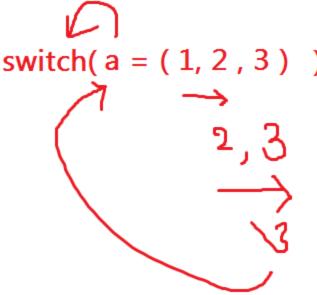


```
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     Line 17
#include<stdio.h>
#include<conio.h>
void main()
int a=0;
switch(a=1)
a=2;
case 1: printf("Hi");break;
case 2: printf("Hello");break;
default: printf("Bye");
printf("a=%d",a);
getch();
/* Hi a=1 */
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```

```
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                 Col 7
      Line 15
#include<stdio.h>
#include<conio.h>
void main()
int a=0;
switch(a=1,2,3)
case 1: printf("Hi");break;
case 2: printf("Hello");break;
default: printf("Bye");
printf("a=%d",a);
getch();
/* Bye a=3 */
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15-Jun-22
```







```
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      Line 15
#include<stdio.h>
#include<conio.h>
void main()
int a=0;
switch(a=(1,2),(3,4))
case 1: printf("Hi");break;
case 2: printf("Hello");break;
default: printf("Bye");
printf("a=%d",a);
getch();
/* Bye a=2 */
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15-Jun-22
```

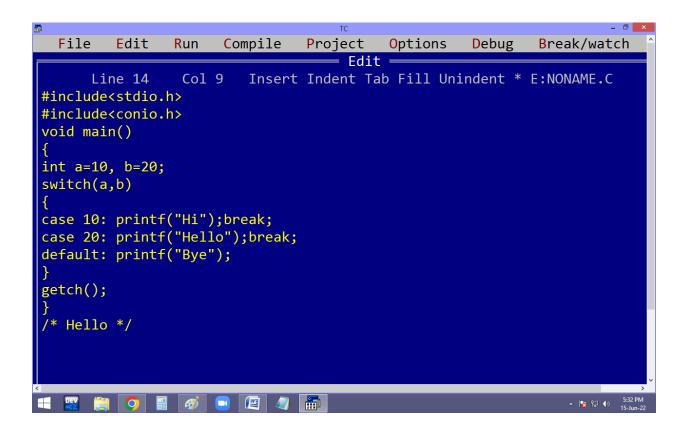
switch(a = (1,2), (3,4))

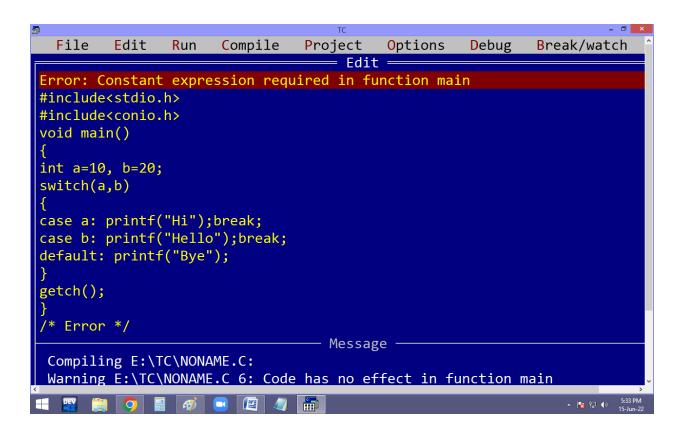
```
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              Col 20 Insert Indent Tab Fill Unindent * E:NONAME.C
     Line 18
#include<stdio.h>
#include<conio.h>
void main()
int a=0;
start:
switch(a++)
case 1: printf("Hi");break;
case 2: printf("Hello");break;
default: printf("Bye");
if(a<=2) goto start;</pre>
printf("a=%d",a);
getch();
/* Bye Hi Hello a=3 */
                                                        ▲ 🙀 😭 🌖 5:24 PM
15-Jun-22
          int a=0; v
          start:
          switch(a++
          case 1: printf("Hi");break;
          case 2: printf("Hello");break;
          default: printf("Bye"); 
          if(a<=2) goto start;
          printf("a=%d",a);
          getch();
           * Bye Hi Hello a=3 */
```

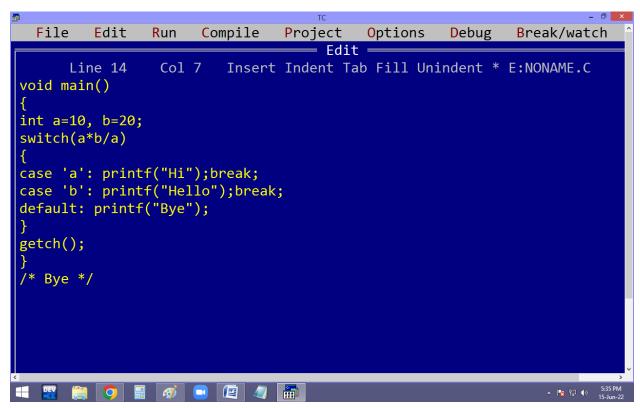
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  File Edit Run
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Error: Declaration syntax error in function main
#include<stdio.h>
#include<conio.h>
void main()
int a=0,1,2;
switch(a)
case 1: printf("Hi");break;
case 2: printf("Hello");break;
default: printf("Bye");
printf("a=%d",a);
getch();
/* Error */
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```

```
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             Col 10 Insert Indent Tab Fill Unindent * E:NONAME.C
     Line 15
#include<stdio.h>
#include<conio.h>
void main()
int a=(0,1,2);
switch(a-1)
case 1: printf("Hi");break;
case 2: printf("Hello");break;
default: printf("Bye");
printf("a=%d",a);
getch();
/* Hi a=2 */
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```

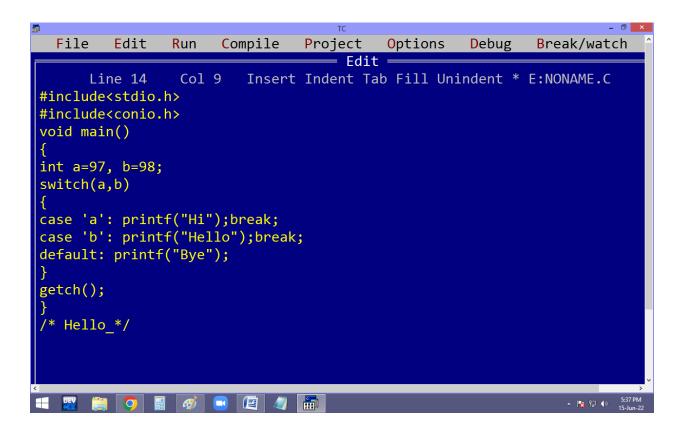
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  File Edit
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                       Insert Indent Tab Fill Unindent * E:NONAME.C
     Line 14
#include<stdio.h>
#include<conio.h>
void main()
int a=10, b=20;
switch(a||b)
case 10: printf("Hi");break;
case 20: printf("Hello");break;
default: printf("Bye");
getch();
/* Bye */
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```





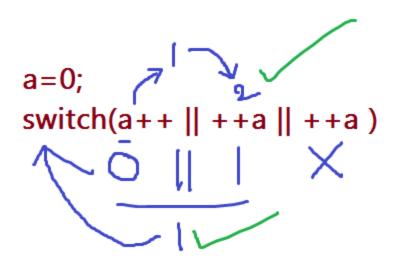


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                Col 16 Insert Indent Tab Fill Unindent * E:NONAME.C
     Line 6
void main()
int a=97, b=98;
switch(a,b,1-a+b+1)
case 'a': printf("Hi");break;
case 'b': printf("Hello");break;
default: printf("Bye");
getch();
/* Bve */
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```



```
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  File Edit Run Compile Project Options Debug Break/watch
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      Line 15
               Col 11 Insert Indent Tab Fill Unindent * E:NONAME.C
#include<stdio.h>
#include<conio.h>
void main()
int a=0;
switch(a++ || ++a || ++a)
case 1: printf("Hi");break;
case 2: printf("Hello");break;
default: printf("Bye");
printf("a=%d",a);
getch();
 /* Hi a=2*/
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```

```
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#include<stdio.h>
#include<conio.h>
void main()
int a=0;
switch(a++ | ++a | ++a)
case 1: printf("Hi");break;
case 2: printf("Hello");break;
default: printf("Bye");
printf("a=%d",a);
getch();
/* Hi a=2*/
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```



```
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#include<stdio.h>
#include<conio.h>
void main()
int a=0;
switch(a = printf("I\t"), printf("Am\t"))
case 1: printf("Indian");break;
case 2: printf("Bharathiyudu");break;
case 3: printf("Hindustani");break;
default: printf("Saithan");
printf("\na=%d",a);
getch();
/* I am Hindustani a=2*/
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```

