

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(**condition / expression**)

{

case **constexp1**:

statements;

break;

case **constexp2**:

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)

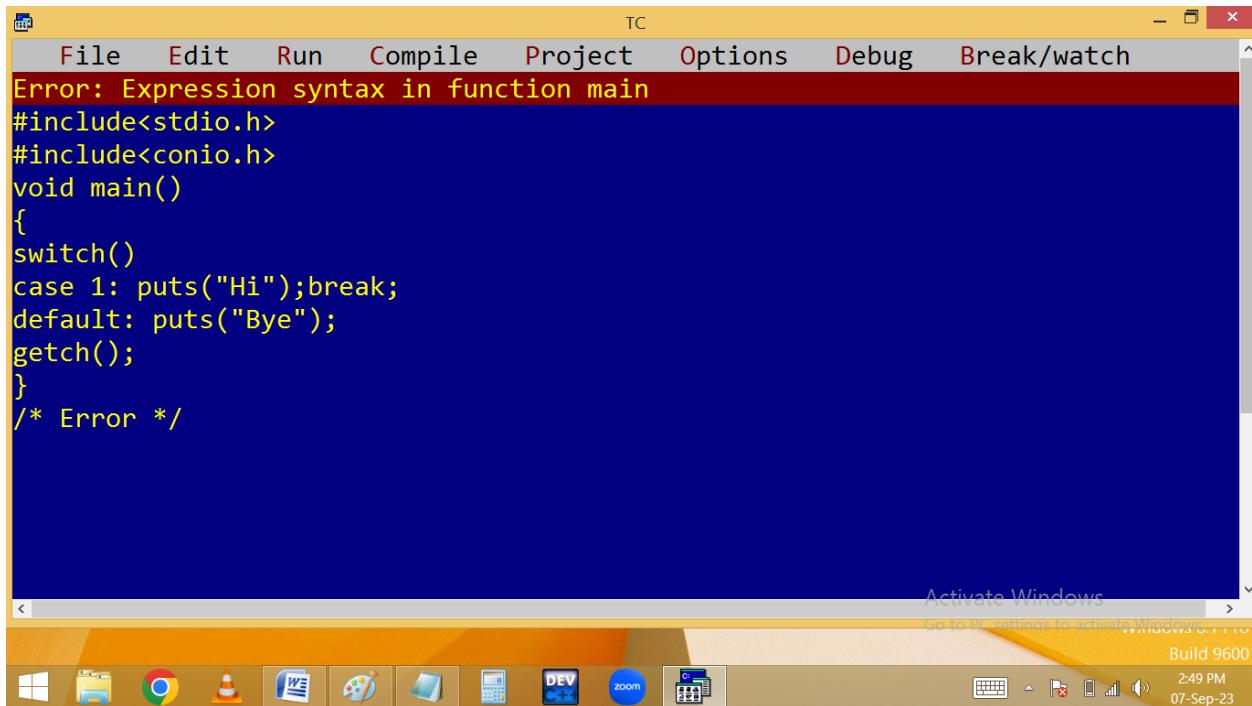
Each case should be separated with break keyword.

Otherwise remaining cases also executed.

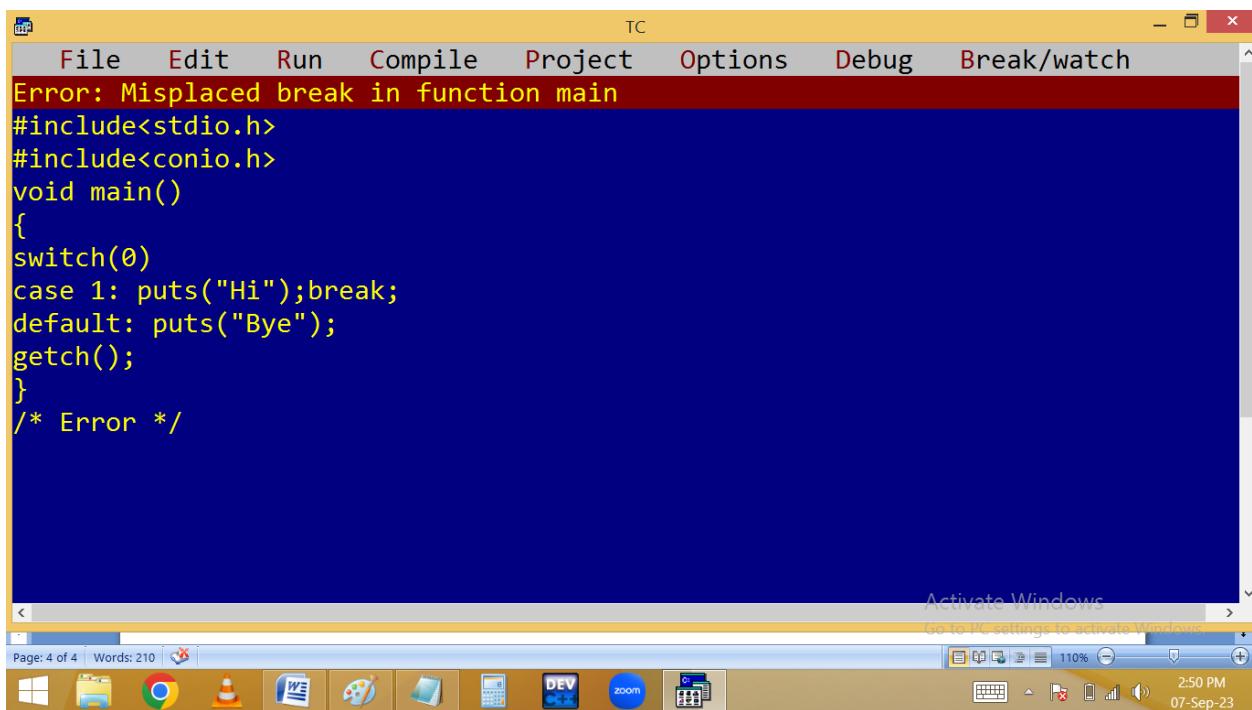
Duplicate cases not allowed.

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.



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



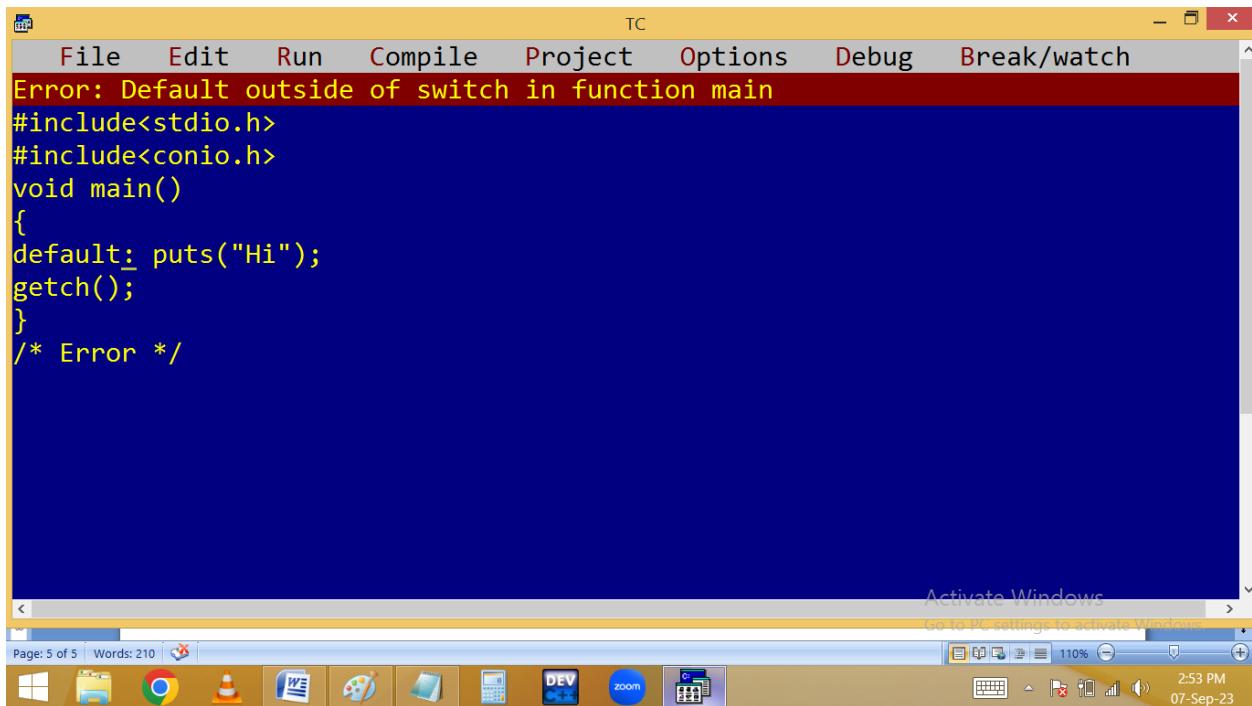
```
#include<stdio.h>
#include<conio.h>
void main()
{
switch(0)
case 1: puts("Hi");break;
default: puts("Bye");
getch();
}
/* Error */
```

```
TC
File Edit Run Compile Project Options Debug Break/watch
Error: Misplaced break in function main
#include<stdio.h>
#include<conio.h>
void main()
{
switch(0)
case 1: puts("Hi");break;
getch();
}
/* Error */

Activate Windows
Go to PC settings to activate Windows
Page: 4 of 5 Words: 210
Windows File Explorer Chrome VLC Notepad Paint Calculator DEV Zoom
2:51 PM 07-Sep-23
```

```
TC
File Edit Run Compile Project Options Debug Break/watch
Error: Case outside of switch in function main
#include<stdio.h>
#include<conio.h>
void main()
{
case 1: puts("Hi");
getch();
}
/* Error */

Activate Windows
Go to PC settings to activate Windows
Page: 5 of 5 Words: 210
Windows File Explorer Chrome VLC Notepad Paint Calculator DEV Zoom
2:52 PM 07-Sep-23
```



TC

File Edit Run Compile Project Options Debug Break/watch

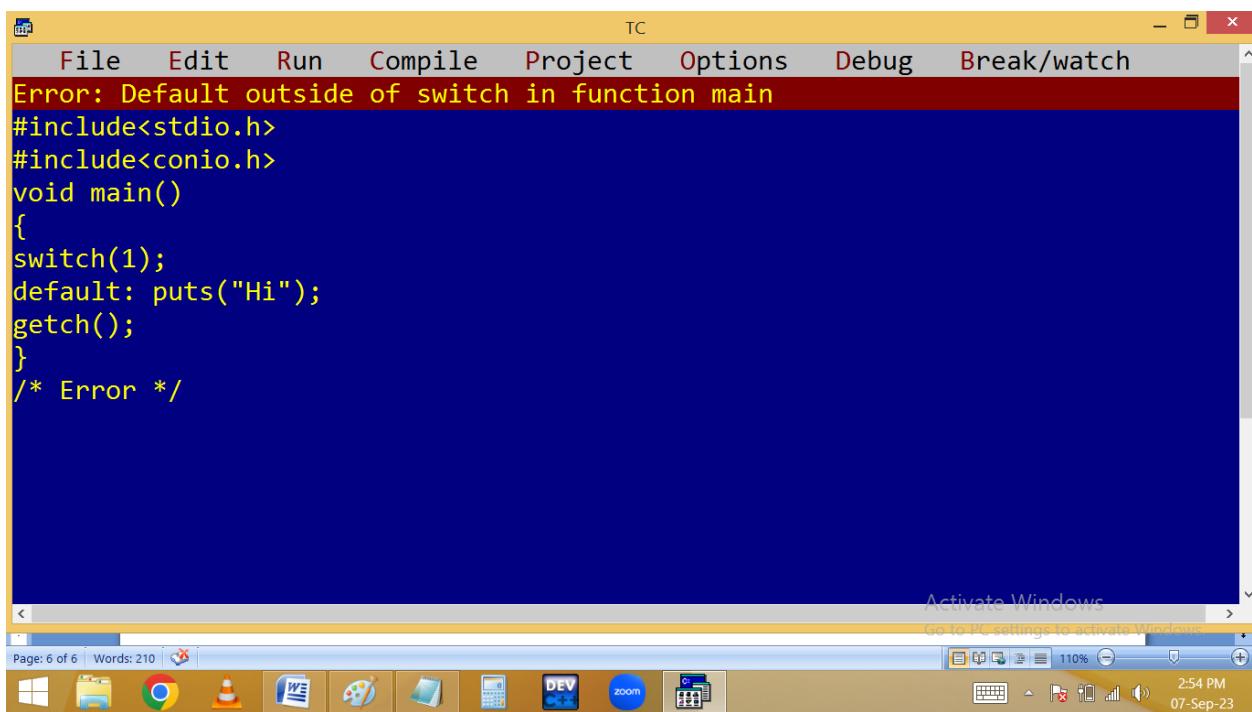
Error: Default outside of switch in function main

```
#include<stdio.h>
#include<conio.h>
void main()
{
default: puts("Hi");
getch();
}
/* Error */
```

Activate Windows
Go to PC settings to activate Windows

Page: 5 of 5 Words: 210

Windows Start Chrome VLC Paint Word Calc DEV Zoom Task View 110% 2:53 PM 07-Sep-23



TC

File Edit Run Compile Project Options Debug Break/watch

Error: Default outside of switch in function main

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

Activate Windows
Go to PC settings to activate Windows

Page: 6 of 6 Words: 210

Windows Start Chrome VLC Paint Word Calc DEV Zoom Task View 110% 2:54 PM 07-Sep-23

A screenshot of the Turbo C++ IDE interface. The menu bar includes File, Edit, Run, Compile, Project, Options, Debug, and Break/watch. The status bar at the bottom shows "Line 8 Col 16 Insert Indent Tab Fill Unindent * E:2PM.C". The code editor displays the following C code:

```
#include<stdio.h>
#include<conio.h>
void main()
{
switch(1);
getch();
}
/* Blank screen */
```

The taskbar at the bottom shows various application icons, and the system tray indicates the date and time as 07-Sep-23.

A screenshot of the Turbo C++ IDE interface, identical to the one above but with a different code input. The status bar at the bottom shows "Line 8 Col 2 Insert Indent Tab Fill Unindent * E:2PM.C". The code editor displays the following C code:

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

The taskbar at the bottom shows various application icons, and the system tray indicates the date and time as 07-Sep-23. A message box in the center of the screen says "Activate Windows Go to PC settings to activate Windows.".

A screenshot of a Windows desktop environment. At the top is a taskbar with various icons. In the center is a code editor window titled "TC". The menu bar includes File, Edit, Run, Compile, Project, Options, Debug, and Break/watch. The status bar at the bottom of the window shows "Line 12 Col 9 Insert Indent Tab Fill Unindent * E:2PM.C". The code in the editor is:

```
#include<stdio.h>
#include<conio.h>
void main()
{
switch(1)
{
default: printf("Hi");
case 0: printf("Bye");break;
}
getch();
}
/* HiBye_ */
```

The system tray at the bottom right shows the date and time as 2:57 PM 07-Sep-23. A watermark "Activate Windows Go to PC settings to activate Windows." is visible in the center of the screen.

A screenshot of a Windows desktop environment, identical to the one above. It features a code editor window titled "TC" with the same menu bar and status bar. The code in the editor is:

```
#include<stdio.h>
#include<conio.h>
void main()
{
switch(0)
{
default: printf("Hi");
case 0: printf("Bye");break;
}
getch();
}
/* Bye */
```

The system tray at the bottom right shows the date and time as 2:58 PM 07-Sep-23. A watermark "Activate Windows Go to PC settings to activate Windows." is visible in the center of the screen.

A screenshot of a Windows desktop environment. At the top is a taskbar with various icons. In the center is a code editor window titled "TC". The menu bar includes File, Edit, Run, Compile, Project, Options, Debug, and Break/watch. The status bar at the bottom of the window shows "Line 12 Col 9 Insert Indent Tab Fill Unindent * E:2PM.C". The code in the editor is:

```
#include<stdio.h>
#include<conio.h>
void main()
{
switch(1)
{
default: printf("Hi");
case1: printf("Bye");break;
}
getch();
}
/* HiBye_ */
```

The status bar at the bottom of the screen also displays "Activate Windows Go to PC settings to activate Windows." The system tray shows the date and time as 2:59 PM 07-Sep-23.

A screenshot of a Windows desktop environment, similar to the one above. The code editor window titled "TC" shows the same C program, but the line "case1: printf("Bye");break;" is highlighted in yellow. The status bar at the bottom of the window shows "Line 12 Col 6 Insert Indent Tab Fill Unindent * E:2PM.C". The system tray shows the date and time as 3:02 PM 07-Sep-23.

A screenshot of a Windows desktop environment. At the top is the taskbar with various icons. Below it is a terminal window titled 'TC' with a dark blue background. The terminal window has a menu bar with 'File', 'Edit', 'Run', 'Compile', 'Project', 'Options', 'Debug', and 'Break/watch'. A red status bar at the bottom of the terminal window displays 'Activate Windows' and 'Go to PC settings to activate Windows.' The terminal window shows the following C code:

```
File Edit Run Compile Project Options Debug Break/watch
Error: Expression syntax in function main
#include<stdio.h>
#include<conio.h>
void main()
{
switch(switch(1))
{
case 1: printf("Bye");break;
default: printf("Hi");
}
getch();
}
/* Error */
```

A screenshot of a Windows desktop environment, identical to the one above, showing another terminal window titled 'TC'. The terminal window has a menu bar with 'File', 'Edit', 'Run', 'Compile', 'Project', 'Options', 'Debug', and 'Break/watch'. A red status bar at the bottom of the terminal window displays 'Activate Windows' and 'Go to PC settings to activate Windows.' The terminal window shows the following C code:

```
File Edit Run Compile Project Options Debug Break/watch
Error: Duplicate case in function main
#include<stdio.h>
#include<conio.h>
void main()
{
switch(1)
{
case 1: printf("Bye");break;
case 1*1: printf("Hello");break;
default: printf("Hi");
}
getch();
}
/* Error */
```

```
TC
File Edit Run Compile Project Options Debug Break/watch
Error: Expression syntax in function main
#include<stdio.h>
#include<conio.h>
void main()
{
switch(3)
{
case >1: printf("Bye");break;
case <1: printf("Hello");break;
default: printf("Hi");
}
getch();
}
/* Error */

Activate Windows
Go to PC settings to activate Windows.

Windows Start Taskbar 3:05 PM
07-Sep-23
```

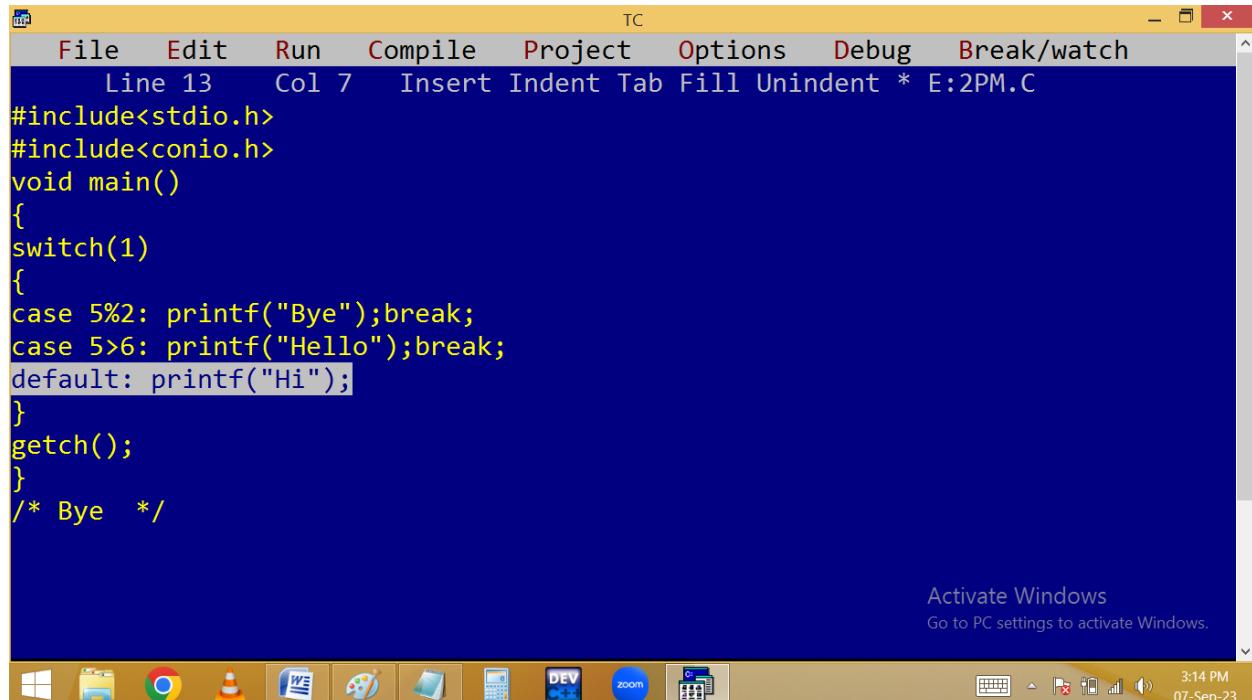
```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 13 Col 4 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
switch(0)
{
case 1>1: printf("Bye");break;
case 2<3: printf("Hello");break;
default: printf("Hi");
}
getch();
}
/* Bye */

Activate Windows
Go to PC settings to activate Windows.

Windows Start Taskbar 3:09 PM
07-Sep-23
```

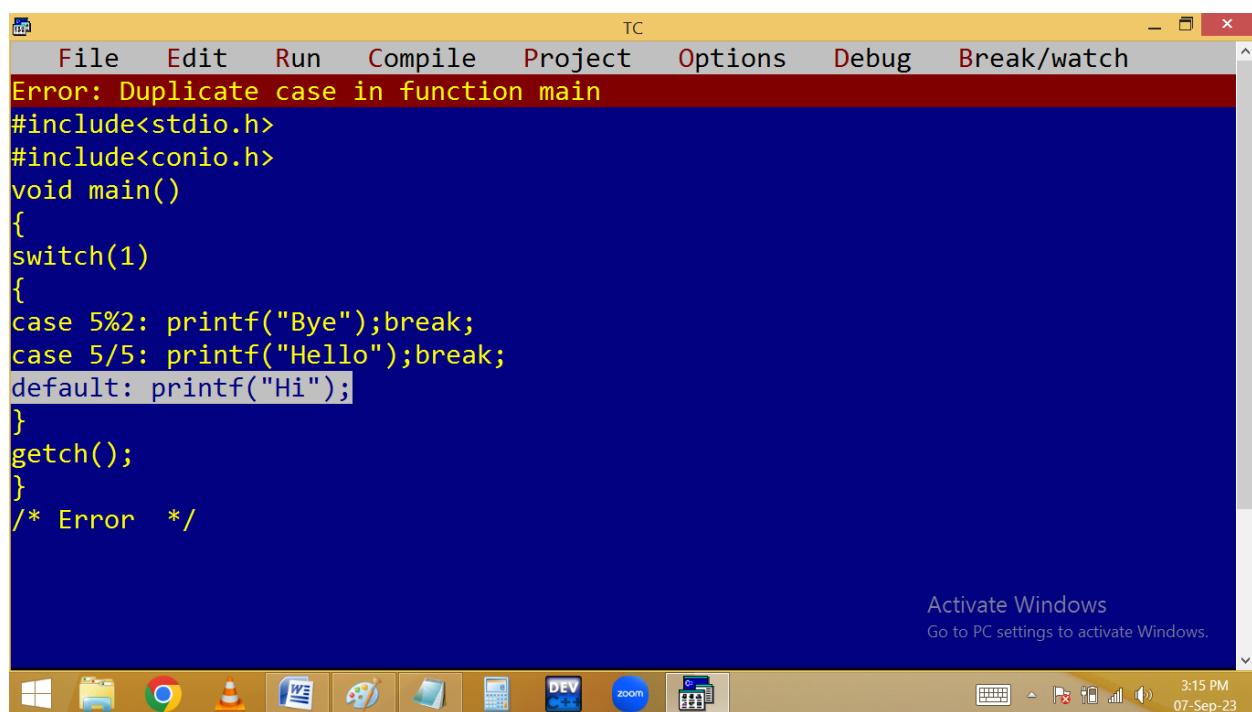
```
File Edit Run Compile Project Options Debug Break/watch
Line 13 Col 10 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
switch(2)
{
case 1-10: printf("Bye");break;
case 5-3: printf("Hello");break;
default: printf("Hi");
}
getch();
}
/* Hello _ */
```

```
File Edit Run Compile Project Options Debug Break/watch
Error: Case statement missing : in function main
#include<stdio.h>
#include<conio.h>
void main()
{
switch(2)
{
case 1 to 10: printf("Bye");break;
case 5 to 3: printf("Hello");break;
default: printf("Hi");
}
getch();
}
/* Error */
```



```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 13 Col 7 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
switch(1)
{
case 5%2: printf("Bye");break;
case 5>6: printf("Hello");break;
default: printf("Hi");
}
getch();
}
/* Bye */
```

Activate Windows
Go to PC settings to activate Windows.



```
TC
File Edit Run Compile Project Options Debug Break/watch
Error: Duplicate case in function main
#include<stdio.h>
#include<conio.h>
void main()
{
switch(1)
{
case 5%2: printf("Bye");break;
case 5/5: printf("Hello");break;
default: printf("Hi");
}
getch();
}
/* Error */
```

Activate Windows
Go to PC settings to activate Windows.

TC

File Edit Run Compile Project Options Debug Break/watch

Error: Constant expression required in function main

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

Activate Windows
Go to PC settings to activate Windows.

3:16 PM
07-Sep-23

TC

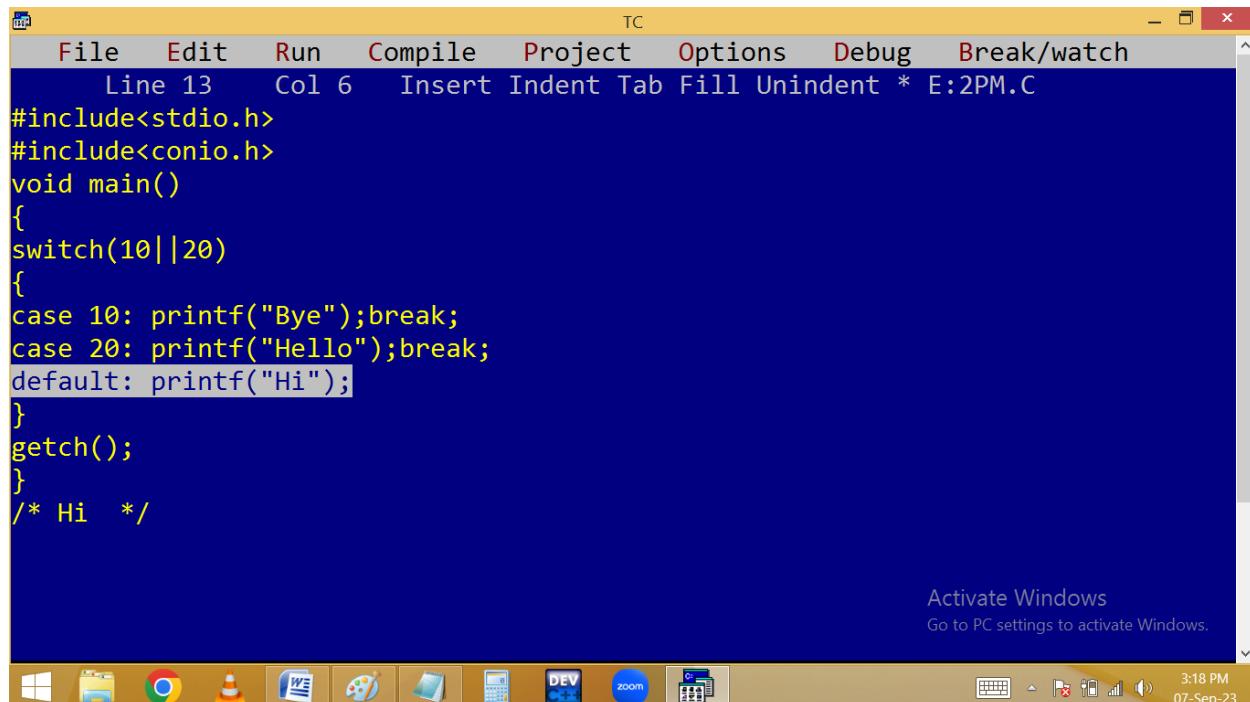
File Edit Run Compile Project Options Debug Break/watch

Line 13 Col 7 Insert Indent Tab Fill Unindent * E:2PM.C

```
#include<stdio.h>
#include<conio.h>
void main()
{
int a=1;
switch(a)
{
case 1: printf("Bye");break;
default: printf("Hi");
}
getch();
}
/* Bye_ */
```

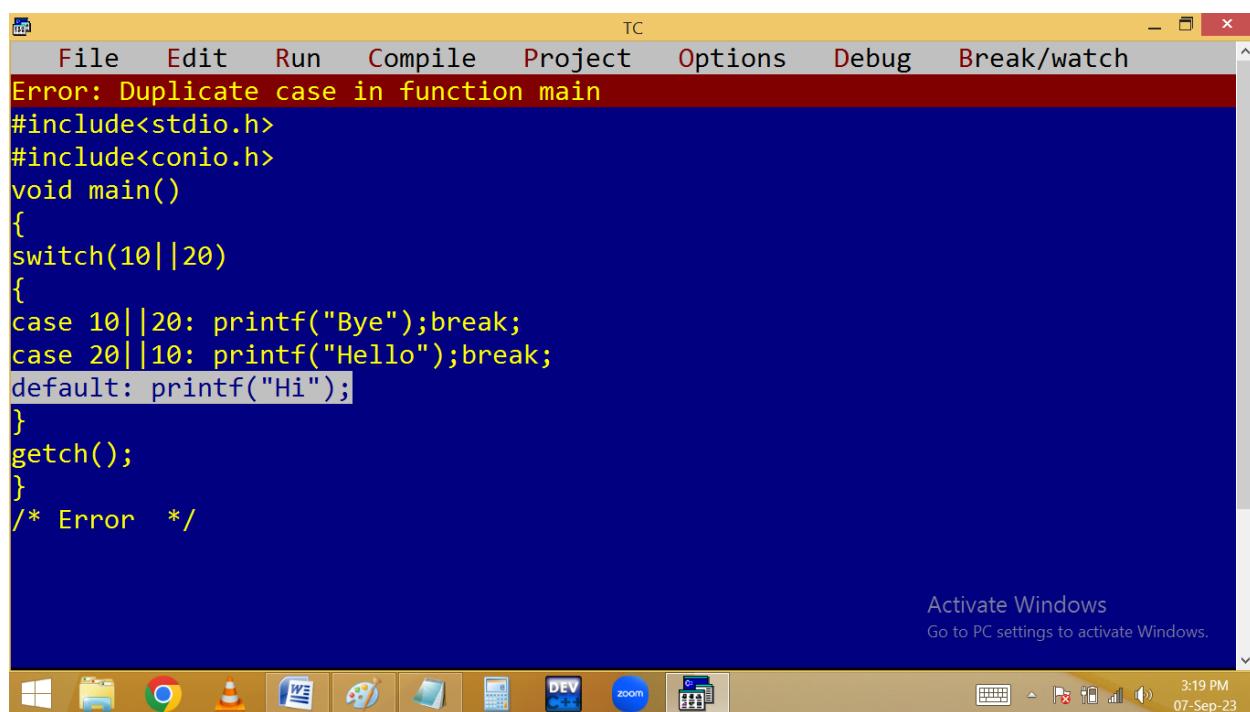
Activate Windows
Go to PC settings to activate Windows.

3:17 PM
07-Sep-23



```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 13 Col 6 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
switch(10||20)
{
case 10: printf("Bye");break;
case 20: printf("Hello");break;
default: printf("Hi");
}
getch();
}
/* Hi */
```

Activate Windows
Go to PC settings to activate Windows.



```
TC
File Edit Run Compile Project Options Debug Break/watch
Error: Duplicate case in function main
#include<stdio.h>
#include<conio.h>
void main()
{
switch(10||20)
{
case 10||20: printf("Bye");break;
case 20||10: printf("Hello");break;
default: printf("Hi");
}
getch();
}
/* Error */
```

Activate Windows
Go to PC settings to activate Windows.

TC

File Edit Run Compile Project Options Debug Break/watch

Line 14 Col 7 Insert Indent Tab Fill Unindent * E:2PM.C

```
#include<stdio.h>
#include<conio.h>
void main()
{
int a=97;
switch(a++)
{
case 'a': printf("Bye");break;
case 'b': printf("Hello");break;
default: printf("Hi");
}
getch();
}
/* Bye*/
```

Activate Windows
Go to PC settings to activate Windows.

Windows Start Chrome File Explorer VLC Paint Word Calc DEV Zoom 3:20 PM 07-Sep-23

TC

File Edit Run Compile Project Options Debug Break/watch

Line 14 Col 7 Insert Indent Tab Fill Unindent * E:2PM.C

```
#include<stdio.h>
#include<conio.h>
void main()
{
int a=97;
switch(a++,++a)
{
case 'a': printf("Bye");break;
case 'b': printf("Hello");break;
default: printf("Hi");
}
getch();
}
/* Hi */
```

Activate Windows
Go to PC settings to activate Windows.

Windows Start Chrome File Explorer VLC Paint Word Calc DEV Zoom 3:22 PM 07-Sep-23

TC

```

File Edit Run Compile Project Options Debug Break/watch
Line 17 Col 14 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=0;
start:
switch(a++)
{
case 1: printf("Bye");break;
case 2: printf("Hello");break;
default: printf("Hi");
}
if(a<=2) goto start;
printf("a=%d",a);
getch();
}
/* HiByeHelloa=3*/

```

Activate Windows
Go to PC settings to activate Windows.

3:25 PM
07-Sep-23

TC

```

File Edit Run Compile Project Options Debug Break/watch
Line 16 Col 12 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=0;
switch(a=1)
{
a=2;
case 1: printf("Bye");break;
case 2: printf("Hello");break;
default: printf("Hi");
}
printf("a=%d",a);
getch();
}
/* Bye a=1 */

```

Activate Windows
Go to PC settings to activate Windows.

3:27 PM
07-Sep-23

```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 9 Col 1 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=0;
a=1,2,3;
switch(a)
{
case 1: printf("Bye");break;
case 2: printf("Hello");break;
default: printf("Hi");
}
printf("a=%d",a);
getch();
}
/* Bye a=1 */

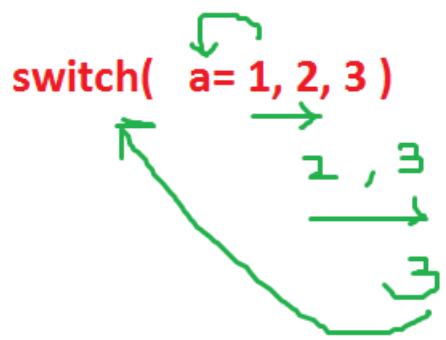
Activate Windows
Go to PC settings to activate Windows.

Windows Start button Taskbar 3:28 PM 07-Sep-23
```

```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 15 Col 6 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=0;
switch(a=1,2,3)
{
case 1: printf("Bye");break;
case 2: printf("Hello");break;
default: printf("Hi");
}
printf("a=%d",a);
getch();
}
/* Hi a=1 */

Activate Windows
Go to PC settings to activate Windows.

Windows Start button Taskbar 3:30 PM 07-Sep-23
```



```

TC
File Edit Run Compile Project Options Debug Break/watch
Line 15 Col 10 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=0;
switch(a=(a=1,2,3))
{
case 1: printf("Bye");break;
case 2: printf("Hello");break;
default: printf("Hi");
}
printf("a=%d",a);
getch();
}
/* Hi a=3 */

```

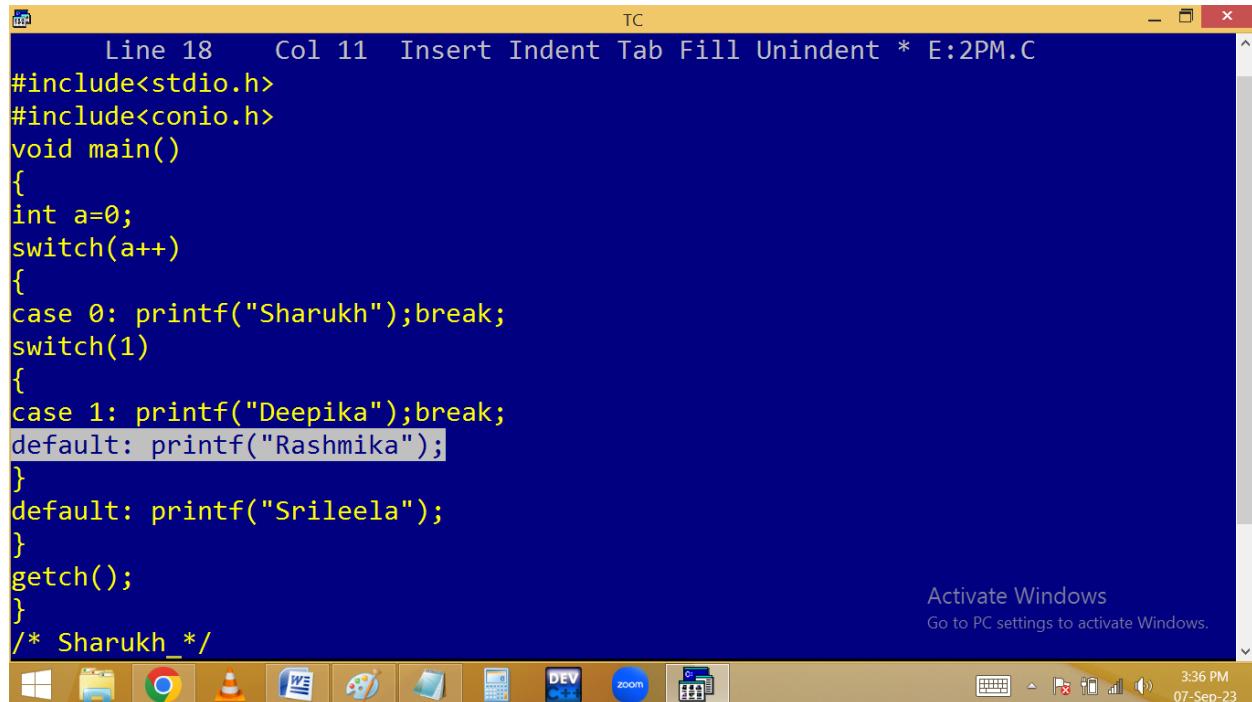
Activate Windows
Go to PC settings to activate Windows.

```

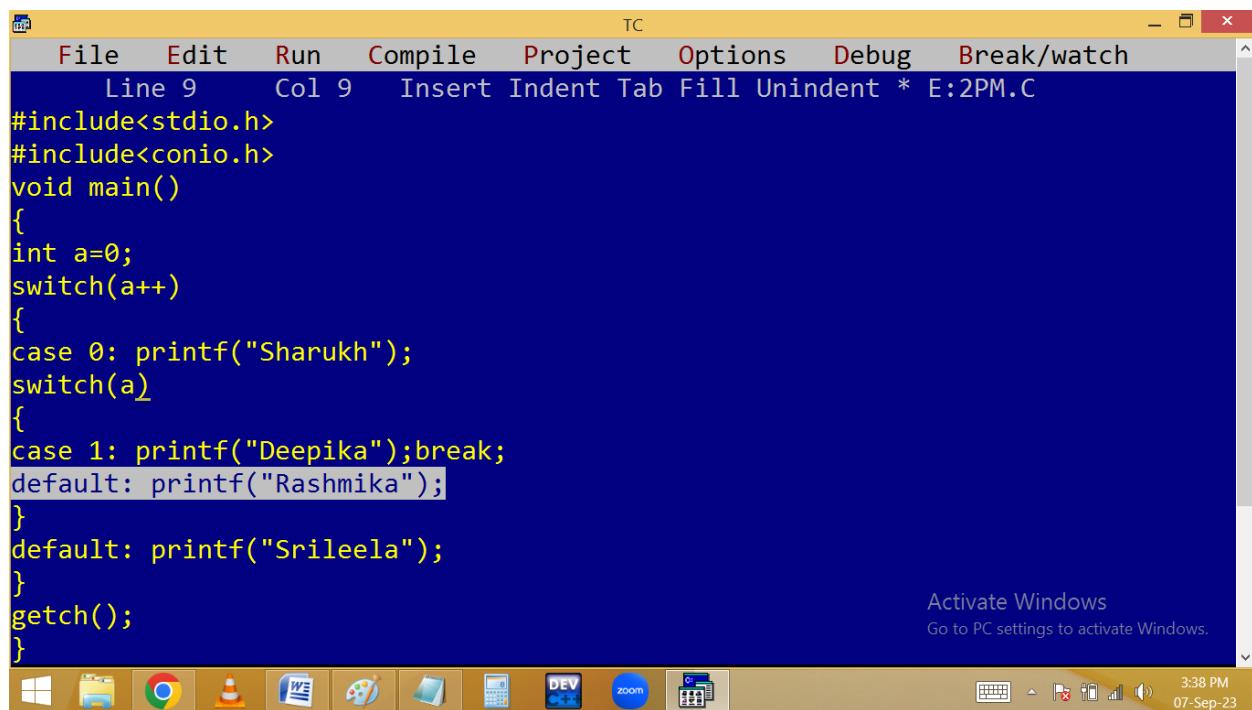
TC
File Edit Run Compile Project Options Debug Break/watch
Line 6 Col 14 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=0;
switch(a=(a++,2,3))
{
case 1: printf("Bye");break;
case 2: printf("Hello");break;
default: printf("Hi");
}
printf("a=%d",a);
getch();
}
/* Hi a=3 */

```

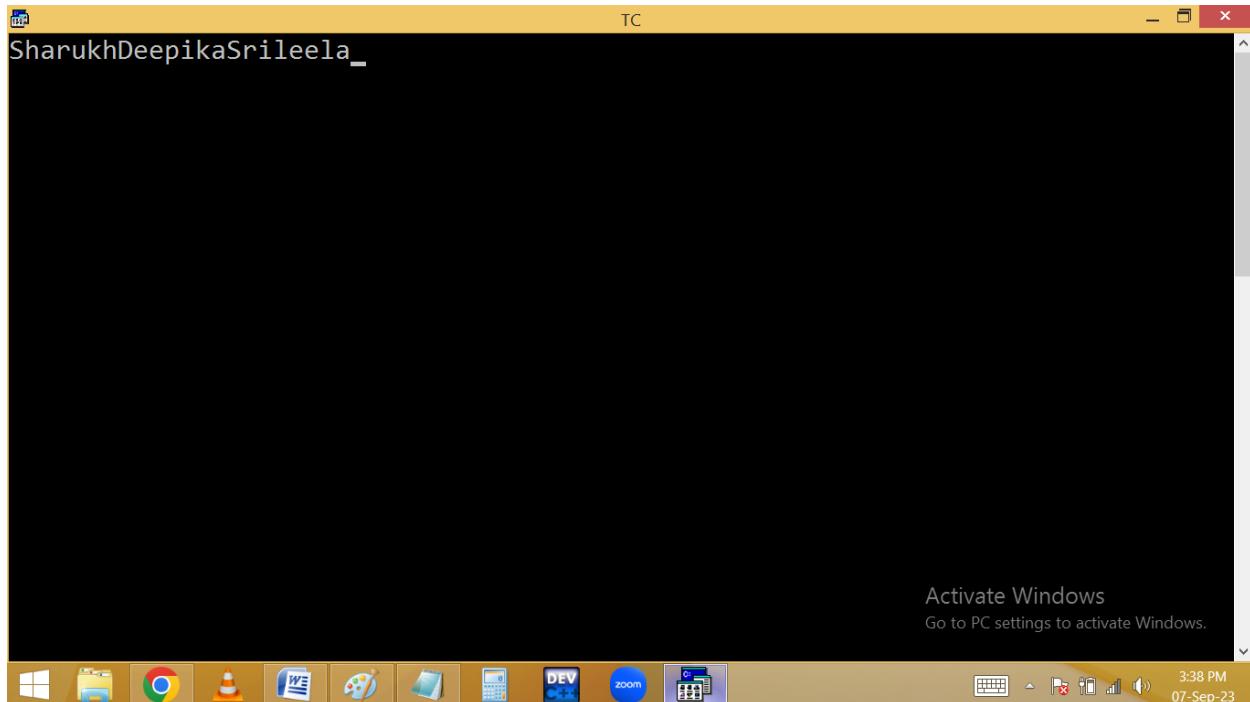
Activate Windows
Go to PC settings to activate Windows.



```
Line 18 Col 11 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=0;
switch(a++)
{
case 0: printf("Sharukh");break;
switch(1)
{
case 1: printf("Deepika");break;
default: printf("Rashmika");
}
default: printf("Srileela");
}
getch();
}
/* Sharukh_ */
```



```
File Edit Run Compile Project Options Debug Break/watch
Line 9 Col 9 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=0;
switch(a++)
{
case 0: printf("Sharukh");
switch(a)
{
case 1: printf("Deepika");break;
default: printf("Rashmika");
}
default: printf("Srileela");
}
getch();
}
```



TC

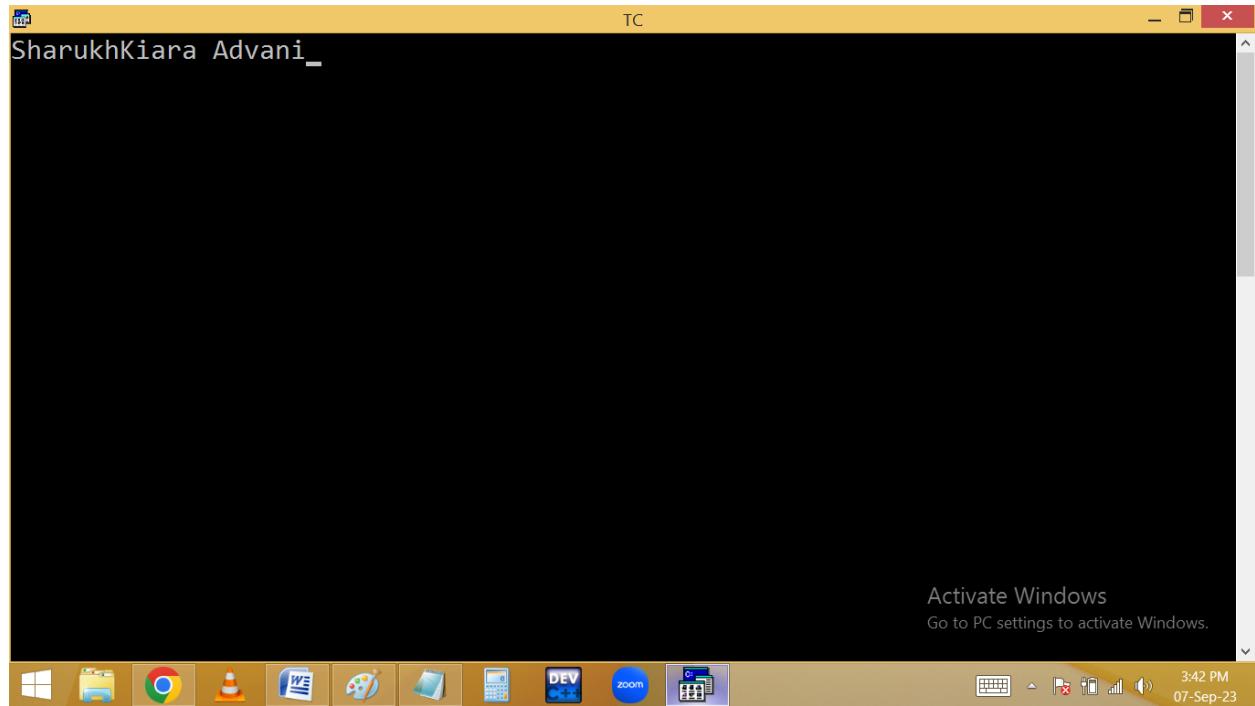
File Edit Run Compile Project Options Debug Break/watch

Line 15 Col 38 Insert Indent Tab Fill Unindent * E:2PM.C

```
#include<stdio.h>
#include<conio.h>
void main()
{
int a=0;
switch(a++)
{
case 0: printf("Sharukh");
switch(a)
{
printf("Rashmika");break;
case 1: printf("Kiara Advani");return;
}
default: printf("Srileela");
}
getch();
}
```

Activate Windows
Go to PC settings to activate Windows.

07-Sep-23 3:41 PM



TC

```

File Edit Run Compile Project Options Debug Break/watch
Line 16 Col 26 Insert Indent Tab Fill Unindent * E:2PM.C
#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("Bharathiyyudu");break;
case 3: printf("Hindustani");break;
default: printf("Human being");
}
printf("\na=%d",a);
getch();
}
/* I am Hindustani a=2 */

```

Activate Windows
Go to PC settings to activate Windows.

switch(a = p("I\t"), p("Am\t"))

