

Finding no of days in given month.

1,3,5,7,8,10,12 – 31 days

2 – 28/29 days

4,6,9,11 – 30 days

Others – invalid month

TC

File Edit Run Compile Project Options Debug Break/watch

Line 10 Col 32 Insert Indent Tab Fill Unindent * E:2PM.C

```
#include<stdio.h>
#include<conio.h>
void main()
{
int n;
clrscr();
printf("Enter month no betwee 1-12 ");scanf("%d",&n);
if(n==1||n==3||n==5||n==7||n==8||n==10||n==12)puts("31 days");
else if(n==2)puts("28/29 days");
else if(n==4||n==6||n==9||n==11)puts("30 days");
else puts("Invalid month no");
getch();
}
```

Activate Windows
Go to PC settings to activate Windows.

2:26 PM
04-Sep-23

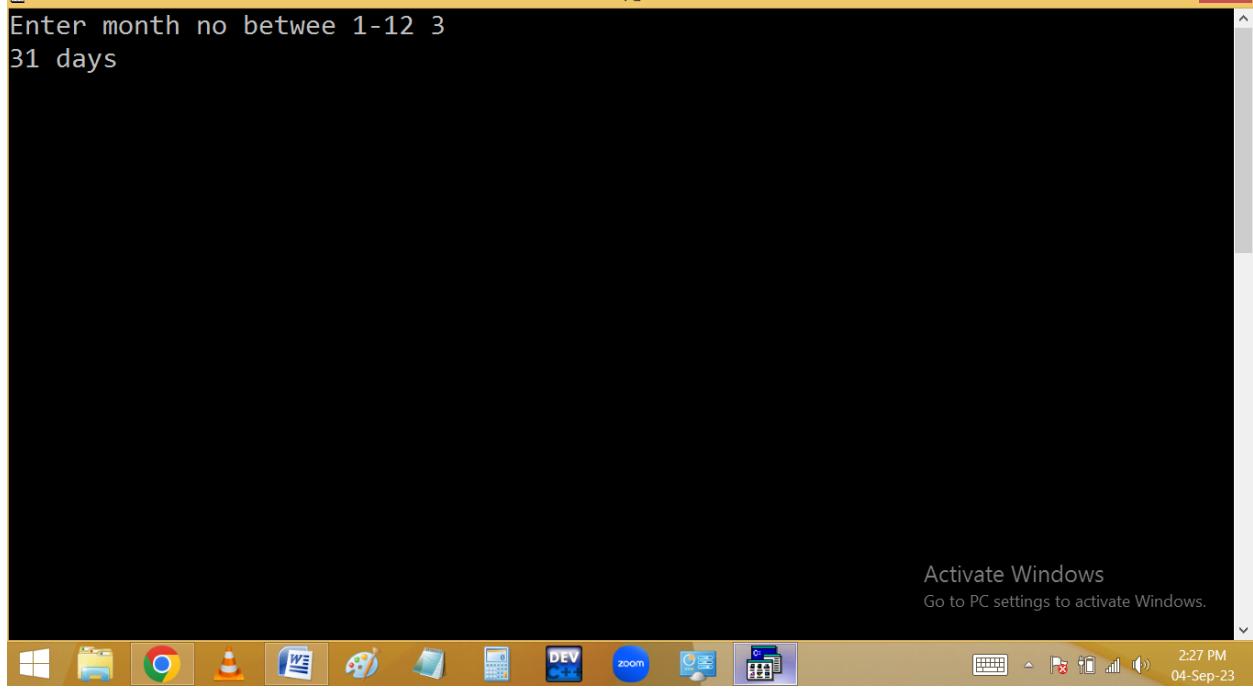
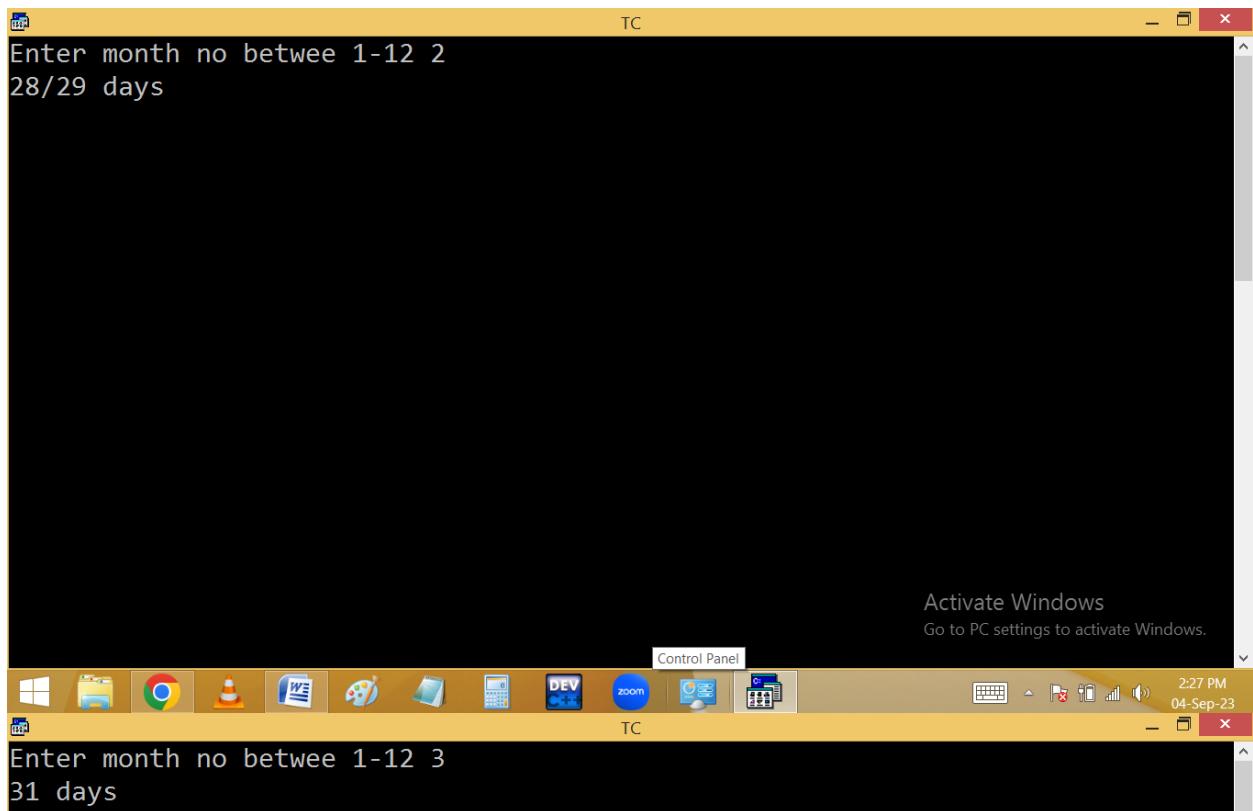
TC

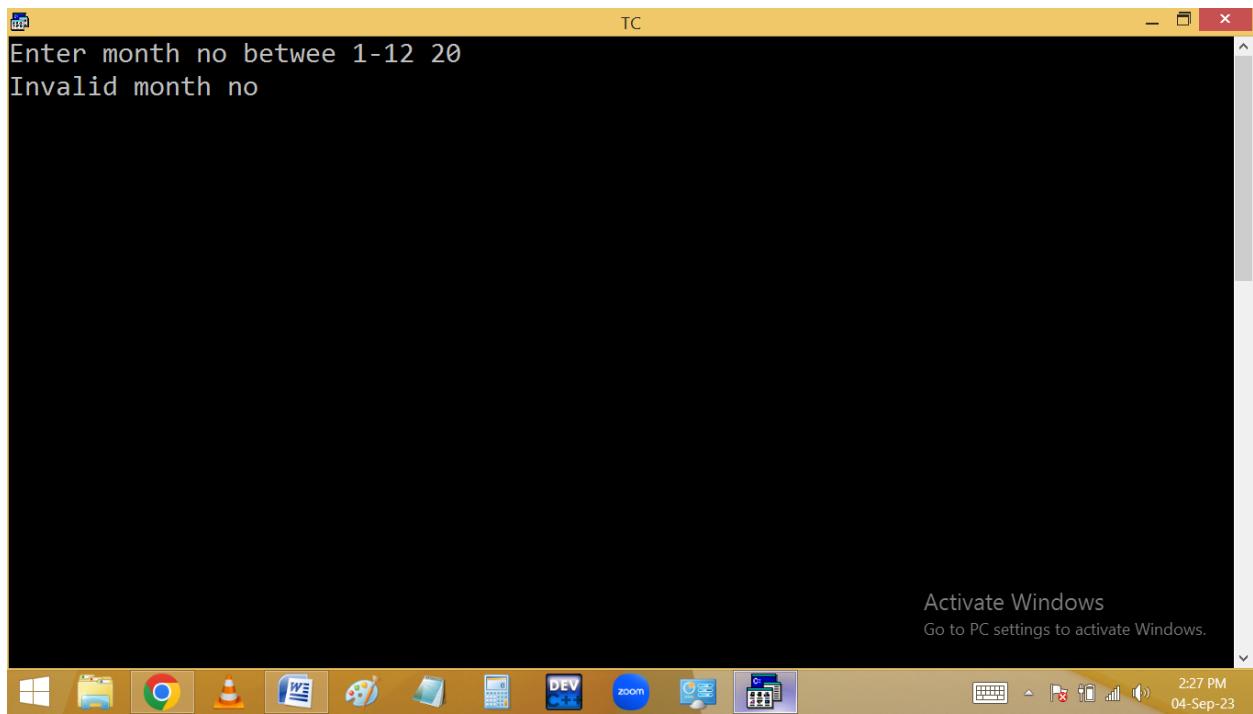
Enter month no betwee 1-12 11

30 days

Activate Windows
Go to PC settings to activate Windows.

2:26 PM
04-Sep-23





Eg: Finding lower / upper / digit / space / special char.

TC

File Edit Run Compile Project Options Debug Break/watch
Line 13 Col 1 Insert Indent Tab Fill Unindent * E:2PM.C

```
#include<stdio.h>
#include<conio.h>
void main()
{
char ch;
clrscr();
printf("Enter a character "); scanf("%c",&ch);
if(ch>='a' && ch<='z')puts("Lower case char");
else if(ch>='A' && ch<='Z')puts("Upper case char");
else if(ch>='0' && ch<='9') puts("Digit");
else if(ch==' ')puts("Space");
else puts("Special char");
getch();
}
```

Activate Windows
Go to PC settings to activate Windows.

Windows Taskbar icons: File Explorer, OneDrive, Edge, VLC, Paint, Snipping Tool, DEV, Zoom, File History, Task View, Taskbar settings.
System tray: Keyboard, Network, Battery, Volume, Date/Time (2:29 PM, 04-Sep-23).

TC

Enter a character H
Upper case char

Activate Windows
Go to PC settings to activate Windows.

Windows Taskbar icons: File Explorer, OneDrive, Edge, VLC, Paint, Snipping Tool, DEV, Zoom, File History, Task View, Taskbar settings.
System tray: Keyboard, Network, Battery, Volume, Date/Time (2:30 PM, 04-Sep-23).

```
TC
Enter a character g
Lower case char
```

Activate Windows
Go to PC settings to activate Windows.

```
TC
Enter a character 9
Digit
```

Activate Windows
Go to PC settings to activate Windows.

```
TC
Enter a character
Space

Activate Windows
Go to PC settings to activate Windows.

Windows Taskbar icons: Start, File Explorer, Google Chrome, VLC, Notepad, Paint, Snipping Tool, Task View, DEV, Zoom, File Explorer, Task View, Keyboard, Mouse, Network, Volume, Date/Time (2:30 PM, 04-Sep-23)

TC
Enter a character *
Special char

Activate Windows
Go to PC settings to activate Windows.

Windows Taskbar icons: Start, File Explorer, Google Chrome, VLC, Notepad, Paint, Snipping Tool, Task View, DEV, Zoom, File Explorer, Task View, Keyboard, Mouse, Network, Volume, Date/Time (2:30 PM, 04-Sep-23)
```

Using ASCII values:

TC

File Edit Run Compile Project Options Debug Break/watch
Line 11 Col 15 Insert Indent Tab Fill Unindent * E:2PM.C

```
#include<stdio.h>
#include<conio.h>
void main()
{
char ch;
clrscr();
printf("Enter a character "); scanf("%c",&ch);
if(ch>=97 && ch<=122)puts("Lower case char");
else if(ch>=65 && ch<=90)puts("Upper case char");
else if(ch>=48 && ch<=57) puts("Digit");
else if(ch==32)puts("Space");
else puts("Special char");
getch();
}
```

Activate Windows
Go to PC settings to activate Windows.

2:31 PM
04-Sep-23

TC

Enter a character M
Upper case char

Activate Windows
Go to PC settings to activate Windows.

2:31 PM
04-Sep-23

```
Enter a character
Space
```

```
Activate Windows
Go to PC settings to activate Windows.
```

```
Enter a character 4
Digit
```

```
Activate Windows
Go to PC settings to activate Windows.
```

Using predefined functions:

The screenshot shows a Windows desktop environment. At the top, there's a taskbar with various icons including File Explorer, Google Chrome, and Zoom. The main window is a terminal or code editor titled "TC" (Turbo C++) with a dark blue background. The menu bar includes "File", "Edit", "Run", "Compile", "Project", "Options", "Debug", and "Break/watch". Below the menu, status information shows "Line 3 Col 18 Insert Indent Tab Fill Unindent * E:2PM.C". The code in the editor is as follows:

```
#include<stdio.h>
#include<conio.h>
#include<ctype.h>_
void main()
{
char ch;
clrscr();
printf("Enter a character "); ch=getchar();
if(islower(ch))puts("Lower case char");
else if(isupper(ch))puts("Upper case char");
else if(isdigit(ch)) puts("Digit");
else if(isspace(ch))puts("Space");
else puts("Special char");
getch();
}
```

To the right of the code, there's an "Activate Windows" watermark with the text "Go to PC settings to activate Windows." Below the editor, the terminal window displays the output of the program: "Enter a character 2" followed by "Digit". The system tray at the bottom right shows the date and time as "2:39 PM 04-Sep-23".

```

TC
Enter a character u
Lower case char

Activate Windows
Go to PC settings to activate Windows.

Windows Start | File Explorer | Google Chrome | VLC Media Player | Paint | Snipping Tool | DEV OS | Zoom | Task View | Taskbar
2:39 PM
04-Sep-23

```

getch()	getche()	getchar()
Reads single char	Reads single char	Reads single char
Entered char is not visible	char is visible	char is visible
Not waiting for enter key	Not waiting for enter key	Waiting for enter key
Belongs to conio.h	Belongs to conio.h	Belongs to stdio.h
char not changeable	char not changeable	char changeable

Note: All the above functions returns ASCII value(int) of reading character.

isupper(), islower(), isdigit(), isspace():

They are used to check the given character is upper / lower/ digit / space.

tolower(), toupper(): They are used to convert the character from upper case to lower and lower to upper.

All these functions / macros available in **<ctype.h>**

Lower to upper / upper to lower:

Using predefined functions:

TC

File Edit Run Compile Project Options Debug Break/watch

Line 11 Col 22 Insert Indent Tab Fill Unindent * E:2PM.C

```
#include<stdio.h>
#include<conio.h>
#include<ctype.h>
void main()
{
char ch;
clrscr();
printf("Enter a character "); ch=getchar();
if(islower(ch))ch=toupper(ch);
else ch=tolower(ch);
printf("char=%c",ch);
getch();
}
```

Activate Windows
Go to PC settings to activate Windows.



2:41 PM
04-Sep-23

TC

```
Enter a character A
char=a
```

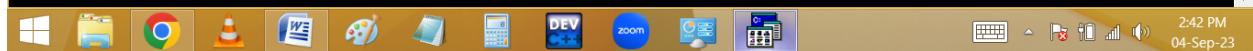
Activate Windows
Go to PC settings to activate Windows.



2:41 PM
04-Sep-23

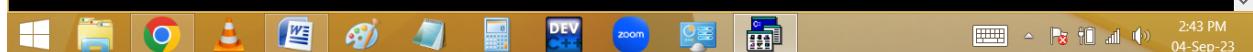
```
TC
Enter a character c
char=C_
```

Activate Windows
Go to PC settings to activate Windows.



```
TC
Enter a character *
char=*
```

Activate Windows
Go to PC settings to activate Windows.



User defined program:

TC

File Edit Run Compile Project Options Debug Break/watch

Line 9 Col 28 Insert Indent Tab Fill Unindent * E:2PM.C

```
#include<stdio.h>
#include<conio.h>
void main()
{
char ch;
clrscr();
printf("Enter a character "); scanf("%c",&ch);
if(ch>='a' && ch<='z')ch-=32;
else if(ch>='A' && ch<='Z') ch+=32;
printf("char=%c",ch);
getch();
}
```

Activate Windows
Go to PC settings to activate Windows.



2:48 PM
04-Sep-23

TC

```
Enter a character A
char=a
```

Activate Windows
Go to PC settings to activate Windows.



2:45 PM
04-Sep-23

```
TC
Enter a character b
char=B_
```

Activate Windows
Go to PC settings to activate Windows.



```
TC
Enter a character 9
char=9
```

Activate Windows
Go to PC settings to activate Windows.

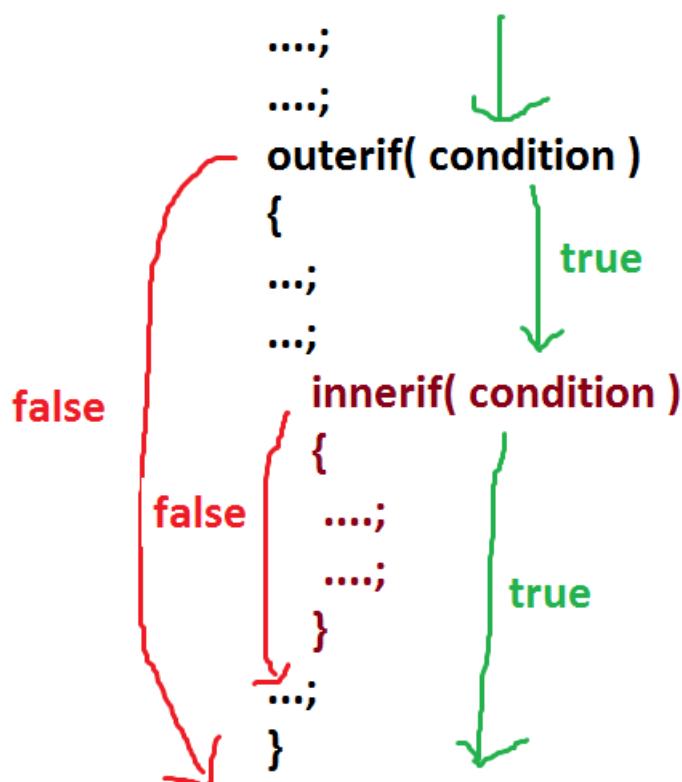


$$X = \begin{array}{r} 42 \\ 32 \\ \hline 74 - J \end{array}$$

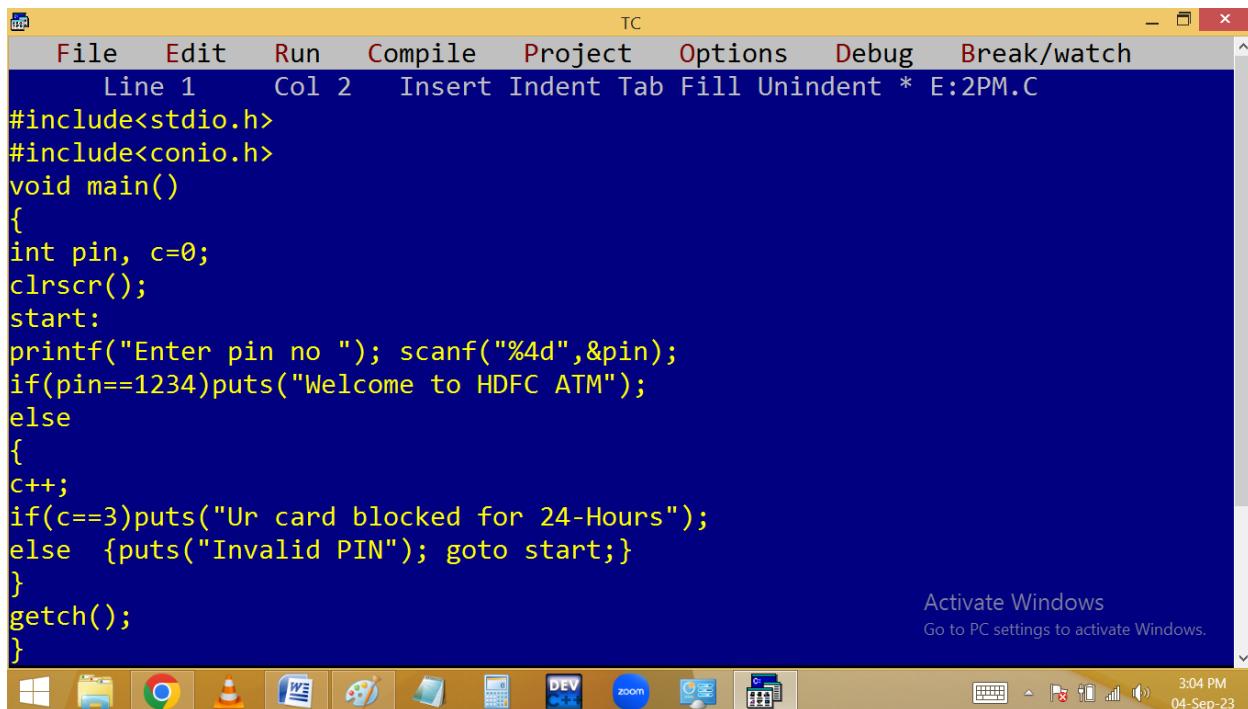
$$q = \begin{array}{r} 57 \\ 32 \\ \hline 89 - Y \end{array}$$

$$\begin{array}{r} A = 65 \\ + 32 \\ \hline q = 97 \\ - 32 \\ \hline A = 65 \end{array}$$

Nested if: if within another if is called nested if.



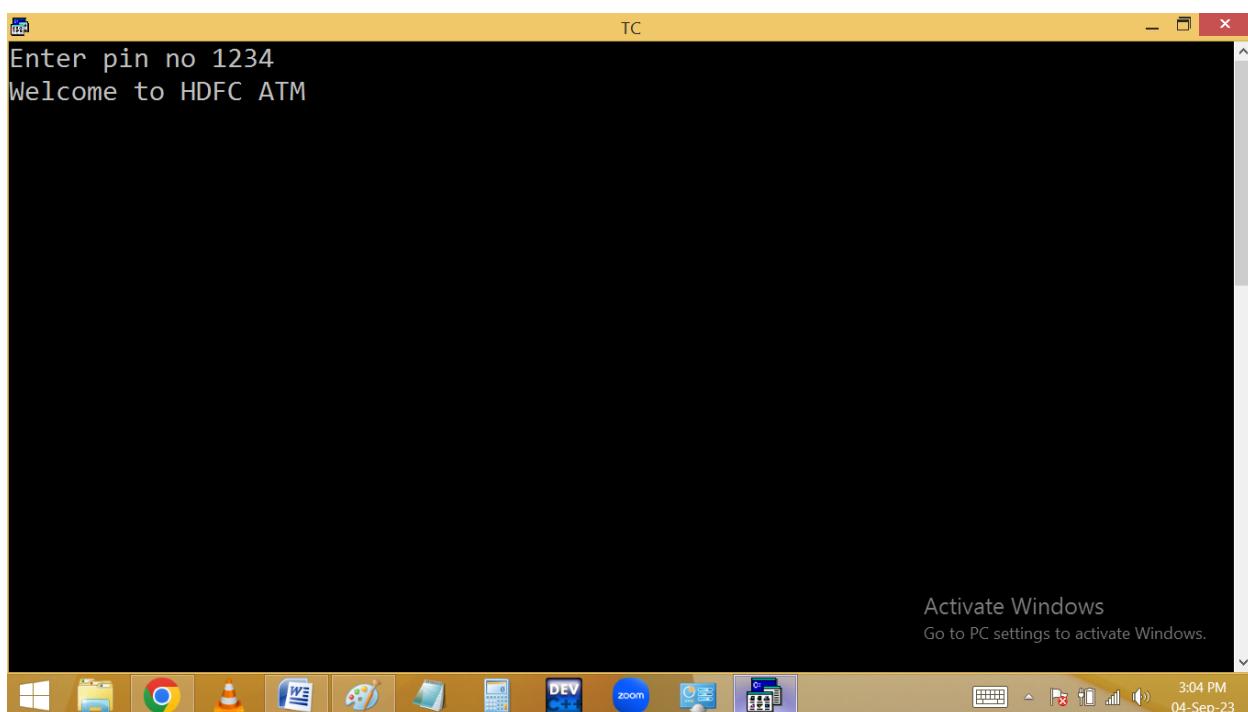
ATM PIN Validation:



The screenshot shows a Windows desktop environment. 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 displays "Line 1 Col 2 Insert Indent Tab Fill Unindent * E:2PM.C". The main code area contains the following C program:

```
#include<stdio.h>
#include<conio.h>
void main()
{
int pin, c=0;
clrscr();
start:
printf("Enter pin no "); scanf("%4d",&pin);
if(pin==1234)puts("Welcome to HDFC ATM");
else
{
c++;
if(c==3)puts("Ur card blocked for 24-Hours");
else {puts("Invalid PIN"); goto start;}
}
getch();
}
```

To the right of the code editor, there is a watermark-like message: "Activate Windows Go to PC settings to activate Windows." At the bottom of the screen, the taskbar shows various pinned icons and the system tray indicates the date and time as "3:04 PM 04-Sep-23".



The screenshot shows the same Windows desktop environment, but now the focus is on a terminal window titled "TC". The terminal window displays the output of the previously shown C program. It shows the user entering "1234" and the program responding with "Welcome to HDFC ATM". The terminal window has a dark background and a light-colored text area. A watermark message "Activate Windows Go to PC settings to activate Windows." is visible in the bottom right corner of the terminal window. The taskbar and system tray are visible at the bottom of the screen.

```
TC
Enter pin no 1111
Invalid PIN
Enter pin no 2222
Invalid PIN
Enter pin no 3333
Ur card blocked for 24-Hours

Activate Windows
Go to PC settings to activate Windows.

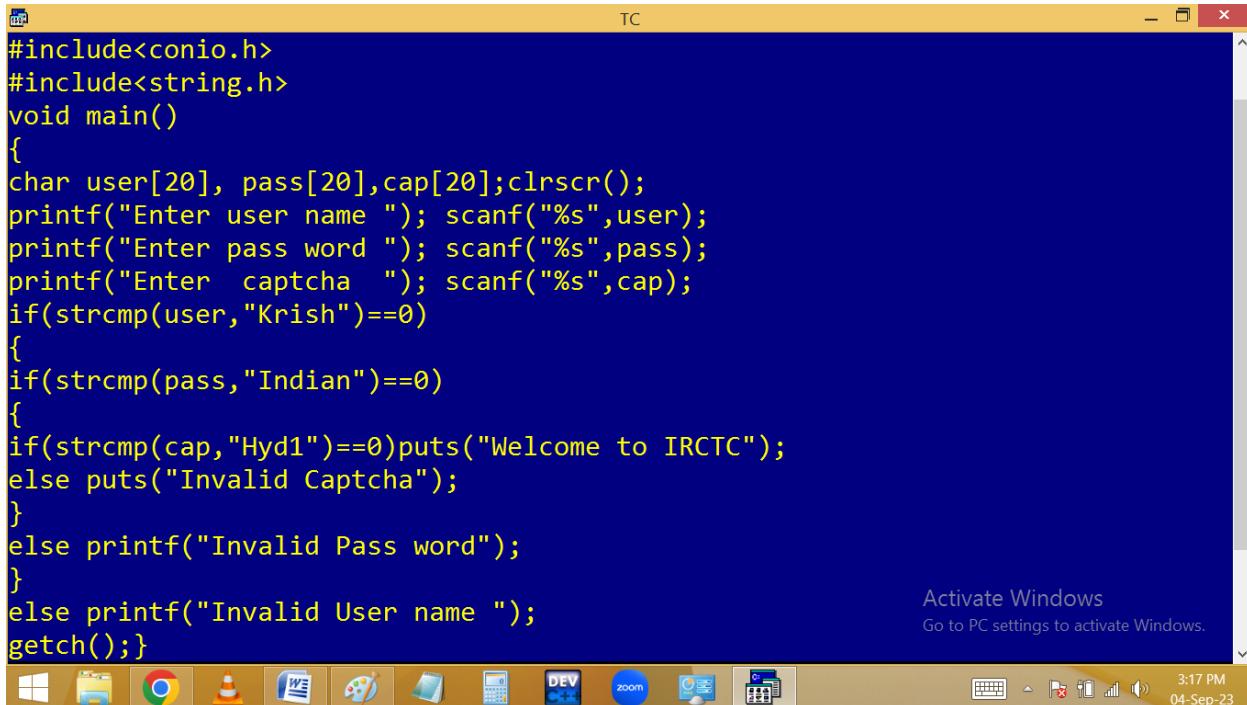
3:04 PM
04-Sep-23
```

```
TC
Enter pin no 1111
Invalid PIN
Enter pin no 2222
Invalid PIN
Enter pin no 123456
Welcome to HDFC ATM

Activate Windows
Go to PC settings to activate Windows.

3:05 PM
04-Sep-23
```

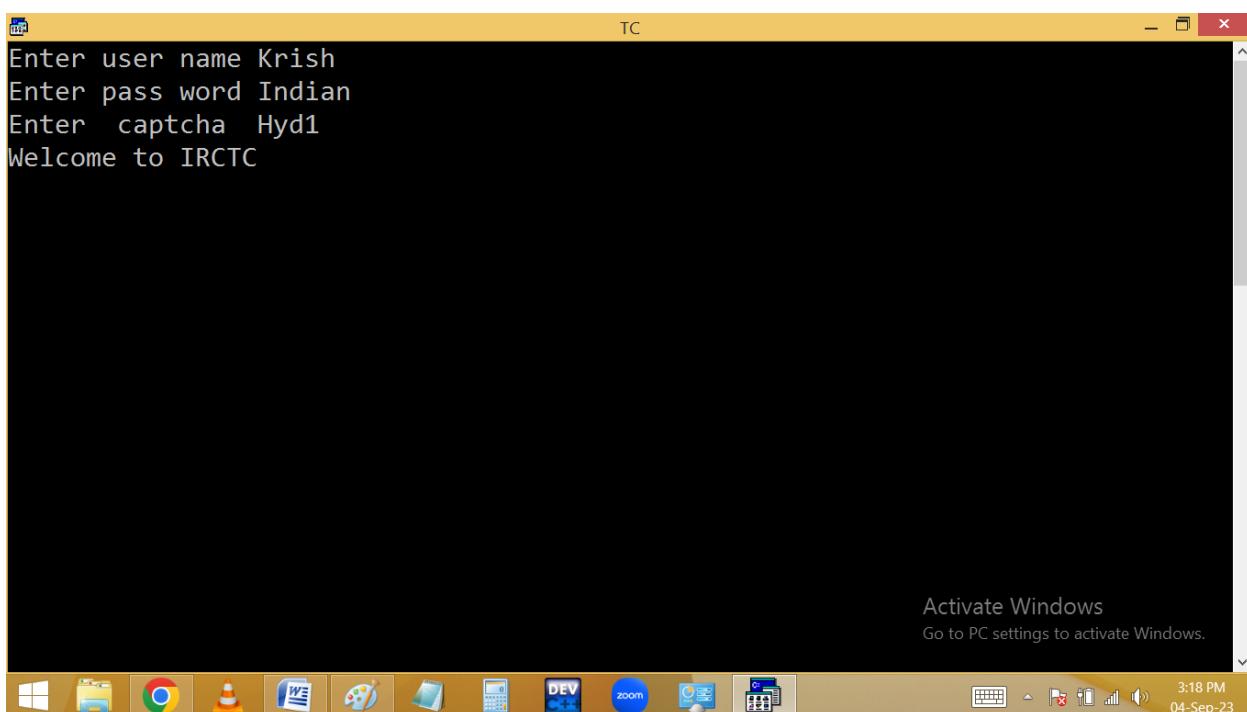
IRCTC Login:



```
#include<conio.h>
#include<string.h>
void main()
{
char user[20], pass[20],cap[20];clrscr();
printf("Enter user name "); scanf("%s",user);
printf("Enter pass word "); scanf("%s",pass);
printf("Enter captcha "); scanf("%s",cap);
if(strcmp(user,"Krish")==0)
{
if(strcmp(pass,"Indian")==0)
{
if(strcmp(cap,"Hyd1")==0)puts("Welcome to IRCTC");
else puts("Invalid Captcha");
}
else printf("Invalid Pass word");
}
else printf("Invalid User name ");
getch();}
```

Activate Windows
Go to PC settings to activate Windows.

3:17 PM
04-Sep-23



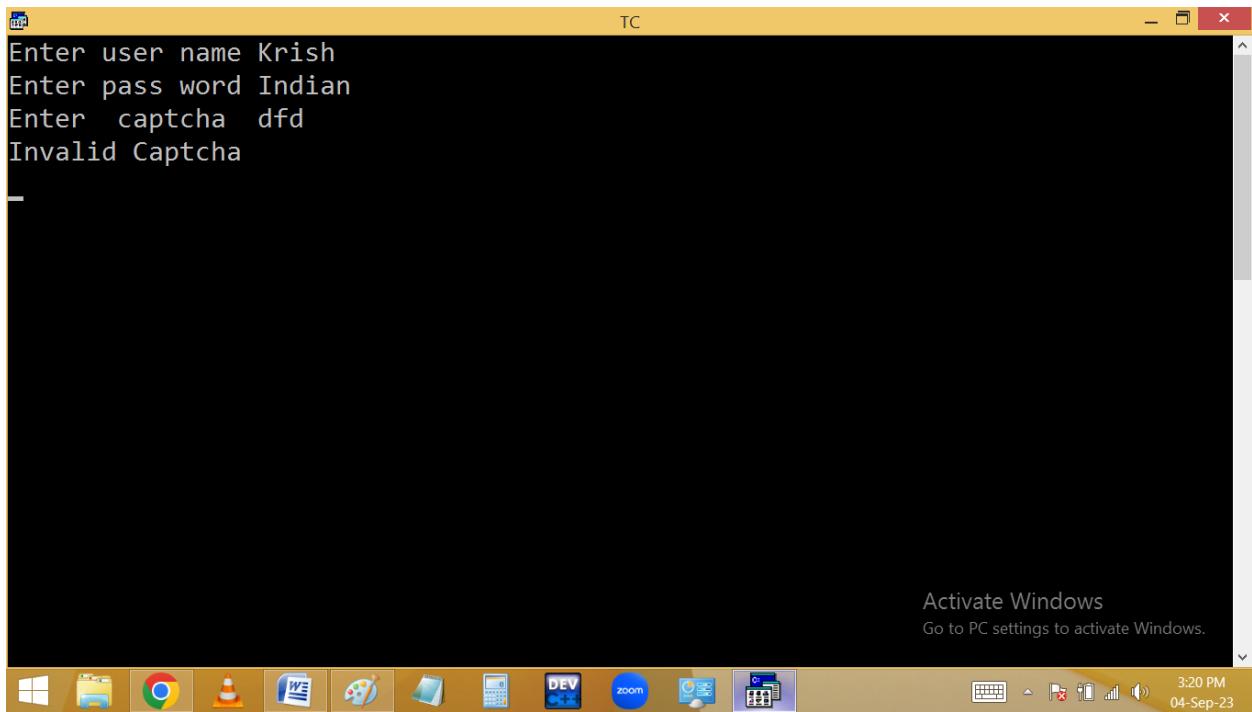
```
Enter user name Krish
Enter pass word Indian
Enter captcha Hyd1
Welcome to IRCTC
```

Activate Windows
Go to PC settings to activate Windows.

3:18 PM
04-Sep-23

```
Enter user name abcd
Enter pass word xyzd
Enter captcha 3343
Invalid User name _
```

```
TC
Enter user name Krish
Enter pass word dfd
Enter captcha 333
Invalid Pass word_
```



Gmail Style Login:

```
#include<stdio.h> #include<conio.h> #include<string.h>
void main()
{
char user[20], pass[20],cap[20];clrscr();
printf("Enter user name "); scanf("%s",user);
if(strcmp(user,"Krish")==0)
{
printf("Enter pass word "); scanf("%s",pass);
if(strcmp(pass,"Indian")==0)
{
printf("Enter captcha "); scanf("%s",cap);
if(strcmp(cap,"Hyd1")==0)puts("Welcome to IRCTC");
else puts("Invalid Captcha");
}
else printf("Invalid Pass word");
}
else printf("Invalid User name ");
getch();
}
```

Activate Windows
Go to PC settings to activate Windows.



```
Enter user name abcd
Invalid User name _
```

Activate Windows
Go to PC settings to activate Windows.



```
TC
Enter user name Krish
Enter pass word abc
Invalid Pass word

Activate Windows
Go to PC settings to activate Windows.

3:29 PM
04-Sep-23
```

```
TC
Enter user name Krish
Enter pass word Indian
Enter captcha fgf
Invalid Captcha

Activate Windows
Go to PC settings to activate Windows.

3:29 PM
04-Sep-23
```

Net Banking style Login:

The screenshot shows a Windows desktop environment. At the top is the taskbar with various icons. Below it is a terminal window titled "TC". The terminal window has a menu bar with "File", "Edit", "Run", "Compile", "Project", "Options", "Debug", and "Break/watch". The status bar at the bottom of the terminal window shows "Line 11 Col 1 Insert Indent Tab Fill Unindent * E:2PM.C". The main area of the terminal displays the following C code:

```
#include<stdio.h> #include<conio.h> #include<string.h>
void main()
{
char user[20], pass[20],cap[20];clrscr();
printf("Enter user name "); scanf("%s",user);
printf("Enter pass word "); scanf("%s",pass);
printf("Enter captcha "); scanf("%s",cap);
if(strcmp(user,"Krish")==0&&strcmp(pass,"Indian")==0&&strcmp(cap,"Hyd1")==0)
puts("Welcome to SBI Net Banking");
else puts("Invalid User name / Password / Captcha");
getch();
}
```

In the bottom right corner of the terminal window, there is a watermark that says "Activate Windows Go to PC settings to activate Windows." The system tray at the bottom right shows the date and time as "3:39 PM 04-Sep-23".

The screenshot shows the same terminal window from the previous image, but now it displays the output of the program. The output is:

```
Enter user name jack
Enter pass word jill
Enter captcha candy
Invalid User name / Password / Captcha
```

The terminal window has a yellow title bar and a watermark in the bottom right corner. The system tray at the bottom right shows the date and time as "3:39 PM 04-Sep-23".

```
TC
Enter user name Ksrish
Enter pass word Indian
Enter captcha Hyd1
Invalid User name / Password / Captcha

Activate Windows
Go to PC settings to activate Windows.

3:40 PM
04-Sep-23
```

```
TC
Enter user name Krish
Enter pass word Indian
Enter captcha Hyd1
Welcome to SBI Net Banking

Activate Windows
Go to PC settings to activate Windows.

3:41 PM
04-Sep-23
```