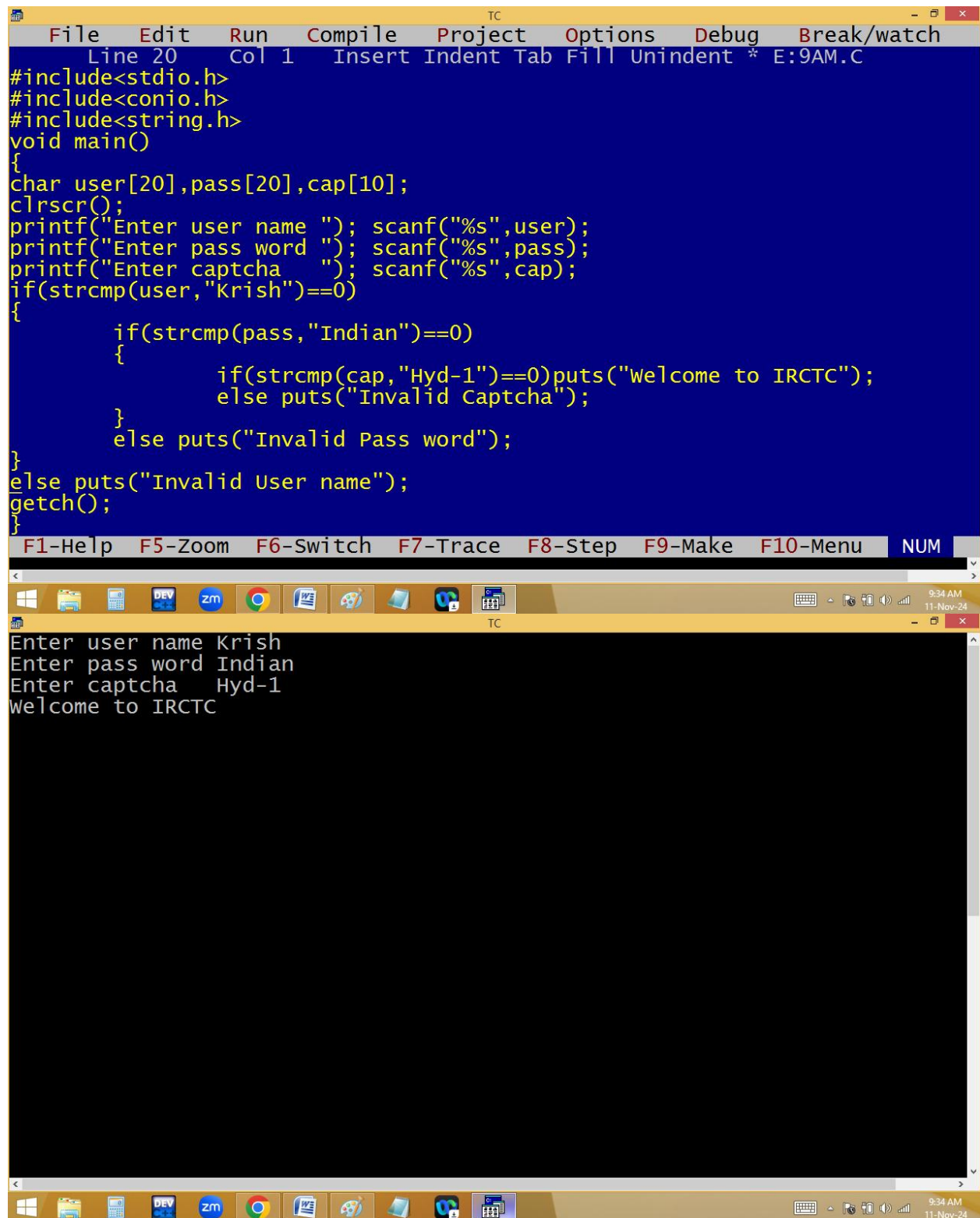


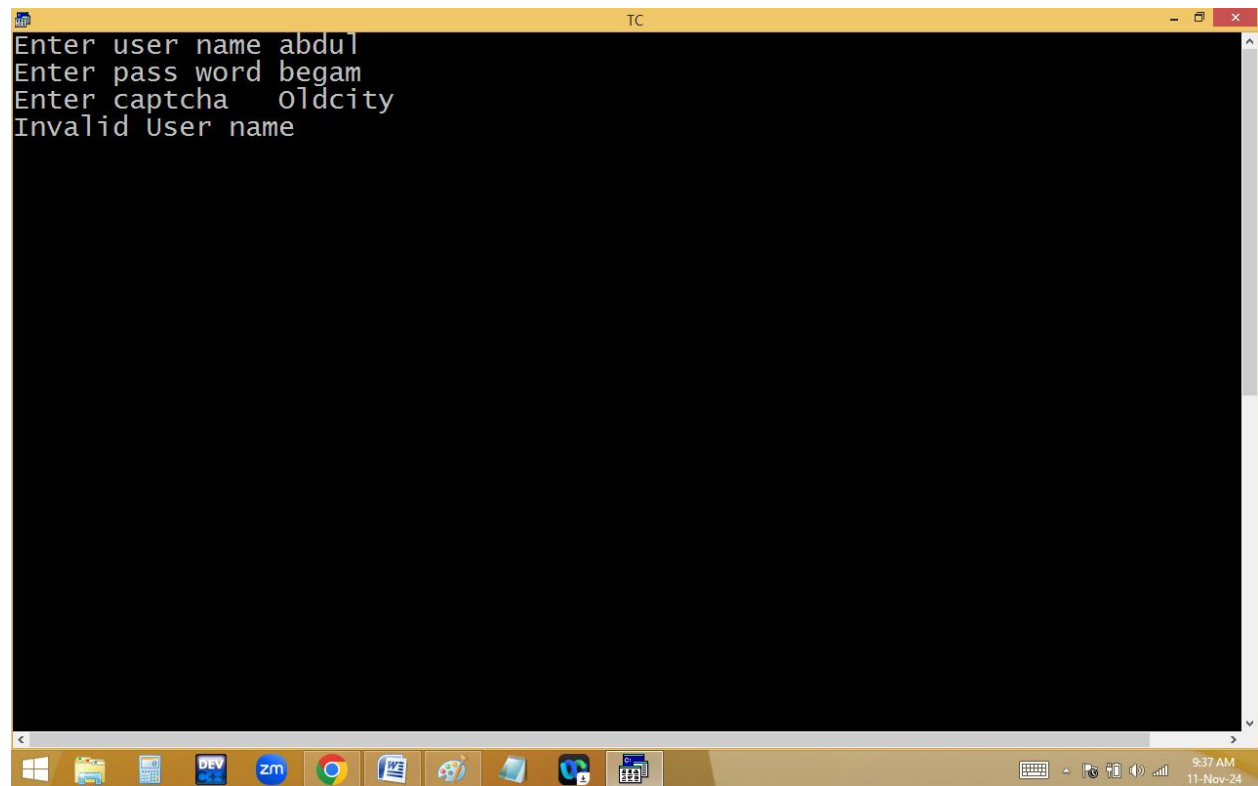
IRCTC Login:

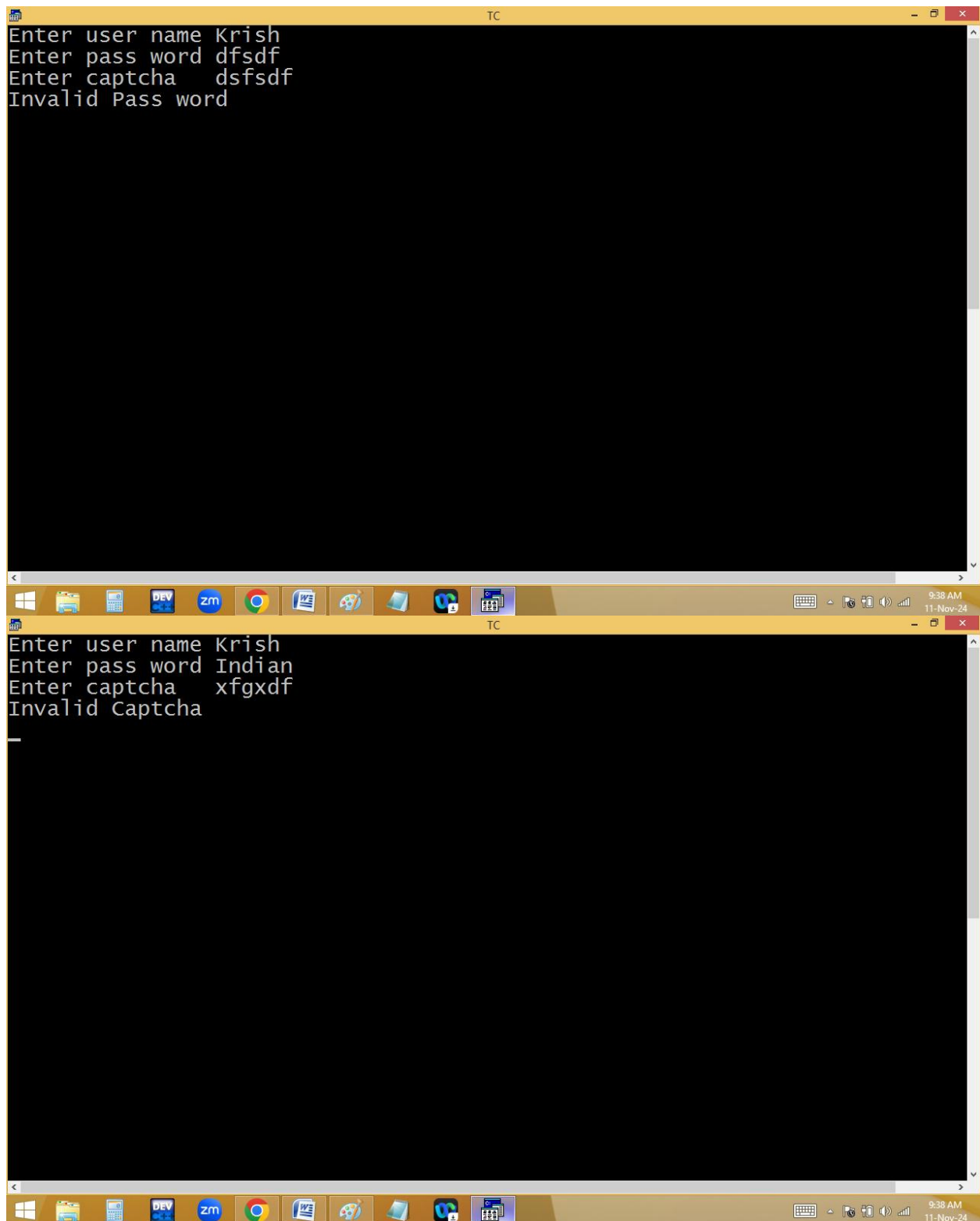


The image shows a screenshot of a Turbo C++ (TC) IDE. The top window displays the source code for an IRCTC login program. The code includes headers for stdio.h, conio.h, and string.h. It defines a main function that prompts the user for a username, password, and captcha. It then checks if the username is "Krish". If yes, it checks if the password is "Indian". If yes, it checks if the captcha is "Hyd-1". If all conditions are met, it prints "Welcome to IRCTC". Otherwise, it prints "Invalid Captcha", "Invalid Pass word", or "Invalid User name" depending on which condition failed. The bottom window shows the program's execution output, where the user has entered "Krish" for the username, "Indian" for the password, and "Hyd-1" for the captcha, resulting in the output "Welcome to IRCTC".

```
File Edit Run Compile Project Options Debug Break/watch
Line 20 Col 1 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main()
{
char user[20],pass[20],cap[10];
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,"Hyd-1")==0)puts("Welcome to IRCTC");
        else puts("Invalid Captcha");
    }
    else puts("Invalid Pass word");
}
else puts("Invalid User name");
getch();
}
```

Enter user name Krish
Enter pass word Indian
Enter captcha Hyd-1
Welcome to IRCTC





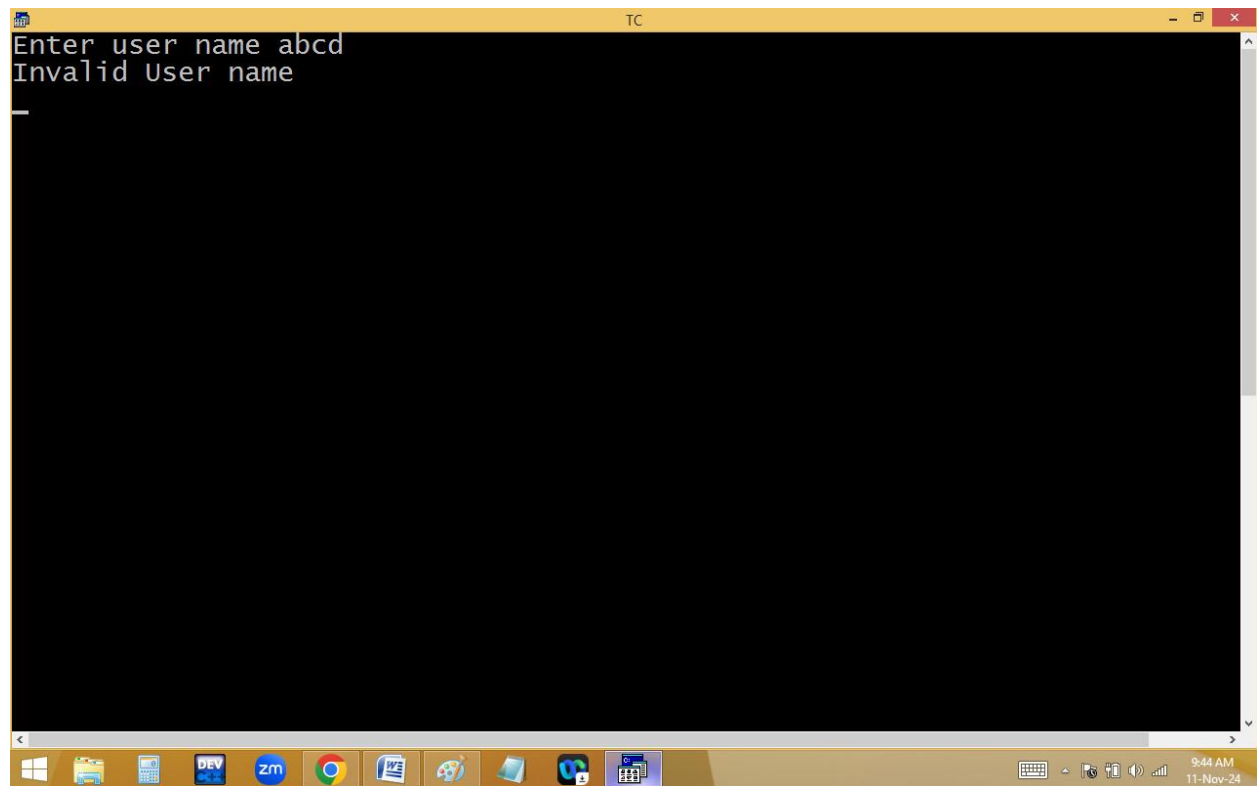
Gmail style login:

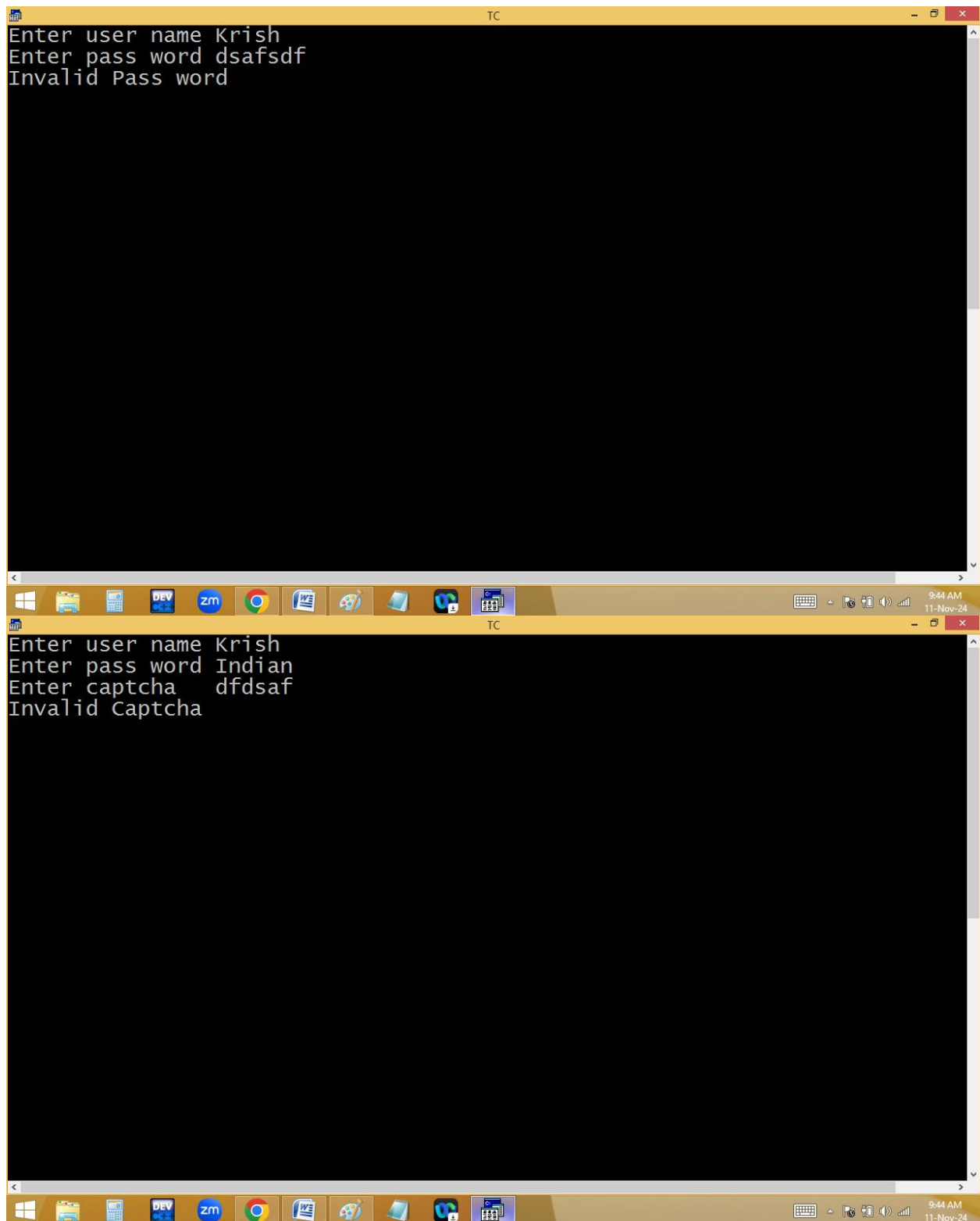
The image shows a screenshot of the Turbo C++ (TC) IDE. The top window displays the source code for a program named 'E:9AM.C'. The code is as follows:

```
File Edit Run Compile Project Options Debug Break/watch
Line 15 Col 65 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main()
{
char user[20],pass[20],cap[10];
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,"Hyd-1")==0)puts("Welcome to Gmail");
else puts("Invalid Captcha");
}
else puts("Invalid Pass word");
}
else puts("Invalid User name");
getch();
}
```

The bottom window shows the output of the program. The user has entered 'Krish' for the username, 'Indian' for the password, and 'Hyd-1' for the captcha. The program has successfully validated these inputs and printed 'Welcome to Gmail'.

```
Enter user name Krish
Enter pass word Indian
Enter captcha Hyd-1
Welcome to Gmail
```





Net Banking style login:

```
File Edit Run Compile Project Options Debug Break/watch
Line 12 Col 24 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main()
{
char user[20],pass[20],cap[10];
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,"Hyd-1")==0)puts("Welcome to SBI Net Banking");
else puts("Invalid user name / pass word / Captcha");
getch();
}
```

F1-Help F5-Zoom F6-Switch F7-Trace F8-Step F9-Make F10-Menu NUM

Enter user name Krish
Enter pass word dfsdfs
Enter captcha Hyd-1
Invalid user name / pass word / Captcha

```
TC
Enter user name Krish
Enter pass word Indian
Enter captcha Hyd-1
Welcome to SBI Net Banking
```

Read a stu id, name, 6 sub marks. Find total, avg, grade using below table.

Avg	Grade
≥ 75	Distinction
≥ 60	First class
≥ 50	Second class
≥ 35	Third class
< 35	Fail


```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 4 Col 67 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h> #include<conio.h>
void main()
{
int id,tel,eng,hin, mat, sci, soc, tot; char name[30]; float avg; clrscr();
printf("Enter stu id "); scanf("%d",&id);
flushall();
printf("Enter stu name "); gets(name);
printf("Enter 6 sub marks ");
scanf("%d%d%d%d%d%d",&tel,&eng,&hin,&mat,&sci,&soc);
tot=tel+eng+hin+mat+sci+soc;
avg=tot/6.0;
printf("Id=%d, name=%s, Tot=%d, Avg=%.2f and Grade ",id,name,tot,avg);
if(tel>=35&&eng>=35&&hin>=35&&mat>=35&&sci>=35&&soc>=35)
{
if(avg>=75) puts("Distinction");
else if(avg>=60)puts("First Class");
else if(avg>=50)puts("Second Class");
else puts("Third Class");
}
else puts("Failed");
getch();
}
F1-Help F5-Zoom F6-Switch F7-Trace F8-Step F9-Make F10-Menu NUM
Enter stu id 1
Enter stu name kumari
Enter 6 sub marks 65 54 45 34 44 35
Id=1, name=kumari, Tot=277, Avg=46.17 and Grade Failed
10:17 AM
11-Nov-24
```

```
TC
Enter stu id 2
Enter stu name kumar
Enter 6 sub marks 45 50 45 43 36 40
Id=2, name=kumar, Tot=259, Avg=43.17 and Grade Third Class
```

```
TC
Enter stu id 3
Enter stu name Kishore Naidu
Enter 6 sub marks 88 78 90 98 89 90
Id=3, name=Kishore Naidu, Tot=533, Avg=88.83 and Grade Distinction
```

```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 1 Col 10 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h> #include<conio.h>
void main()
{
int id,tel,eng,hin, mat, sci, soc, tot; char name[30]; float avg; clrscr();
printf("Enter stu id "); scanf("%d",&id);flushall();
printf("Enter stu name "); gets(name);
printf("Enter 6 sub marks ");
scanf("%d%d%d%d%d%d",&tel,&eng,&hin,&mat,&sci,&soc);
tot=tel+eng+hin+mat+sci+soc;
avg=tot/6.0;
puts("Id\tName\tTotal\tAvg\tGrade");
puts("-----");
printf("%d\t%s\t%d\t%.2f\t",id,name,tot,avg);
if(tel>=35&&eng>=35&&hin>=35&&mat>=35&&sci>=35&&soc>=35)
{
if(avg>=75) puts("Distinction");
else if(avg>=60)puts("First Class");
else if(avg>=50)puts("Second Class");
else puts("Third Class");
}
else puts("Failed");
getch(); }
F1-Help F5-Zoom F6-Switch F7-Trace F8-Step F9-Make F10-Menu NUM
```

Enter stu id 9
Enter stu name Gopi Krishna
Enter 6 sub marks 65 78 76 69 80 68
Id Name Total Avg Grade

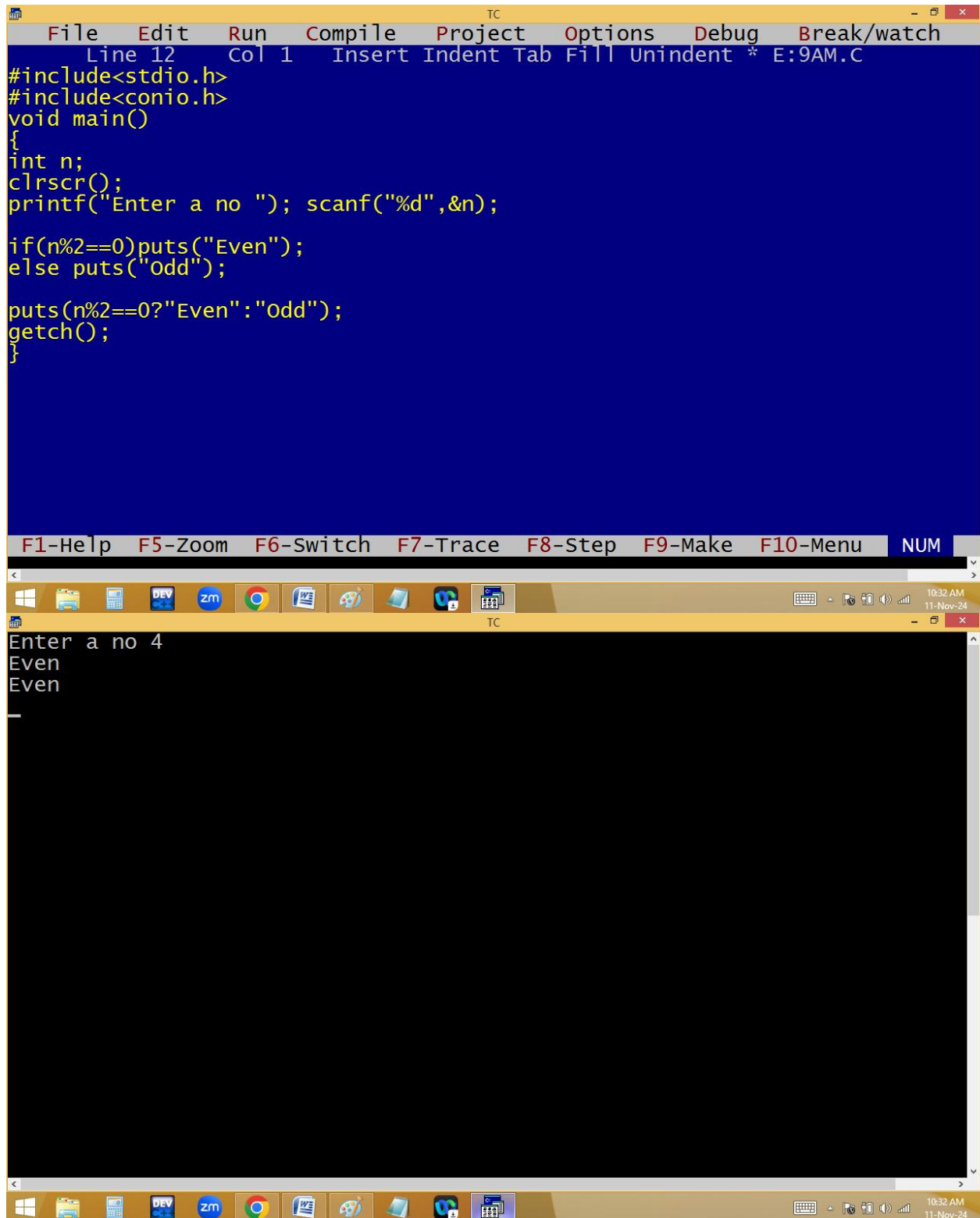
9 Gopi Krishna 436 72.67 First Class

```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 13 Col 13 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h> #include<conio.h>
void main()
{
int id,tel,eng,hin, mat, sci, soc, tot; char name[30]; float avg; clrscr();
printf("Enter stu id "); scanf("%d",&id);flushall();
printf("Enter stu name "); gets(name);
printf("Enter 6 sub marks ");
scanf("%d%d%d%d%d%d",&tel,&eng,&hin,&mat,&sci,&soc);
tot=tel+eng+hin+mat+sci+soc;
avg=tot/6.0;
printf("%-4s %-20s%6s%10s\tGrade\n", "Id", "Name", "Total", "Avg");
puts("-----");
printf("%-4d %-20s%6d\t%10.2f\t", id, name, tot, avg);
if(tel>=35&&eng>=35&&hin>=35&&mat>=35&&sci>=35&&soc>=35)
{
if(avg>=75) puts("Distinction");
else if(avg>=60)puts("First Class");
else if(avg>=50)puts("Second Class");
else puts("Third Class");
}
else puts("Failed");
getch(); }
F1-Help F5-Zoom F6-Switch F7-Trace F8-Step F9-Make F10-Menu NUM
```

Enter stu id 1
Enter stu name Krishna rao
Enter 6 sub marks 77 66 88 67 67 76

Id	Name	Total	Avg	Grade
1	Krishna rao	441	73.50	First Class

Finding even/odd using ternary operator?



The screenshot displays the Turbo C++ (TC) IDE. The top window shows the source code for a program that checks if a number is even or odd using the ternary operator. The code is as follows:

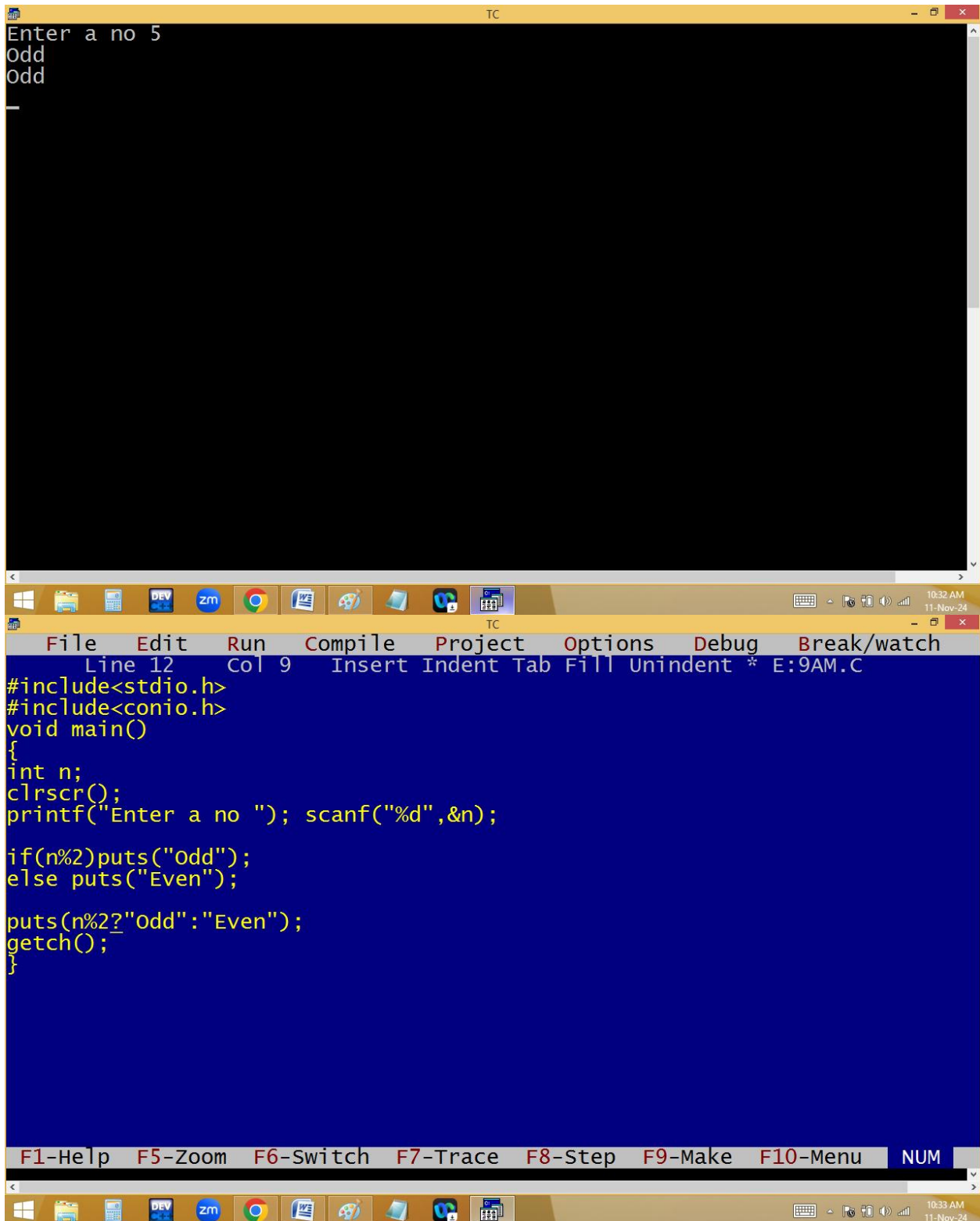
```
File Edit Run Compile Project Options Debug Break/watch
Line 12 Col 1 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int n;
clrscr();
printf("Enter a no "); scanf("%d",&n);

if(n%2==0)puts("Even");
else puts("Odd");

puts(n%2==0?"Even":"Odd");
getch();
}
```

The bottom window shows the program's execution. It prompts the user to "Enter a no" and shows the input "4". The output of the program is "Even", which is displayed twice on separate lines.

```
TC
Enter a no 4
Even
Even
```



The image shows a screenshot of the Turbo C++ (TC) IDE. The top window displays the output of a program, and the bottom window displays the source code.

Top Window Output:

```
Enter a no 5
Odd
Odd
```

Bottom Window Source Code (E:9AM.C):

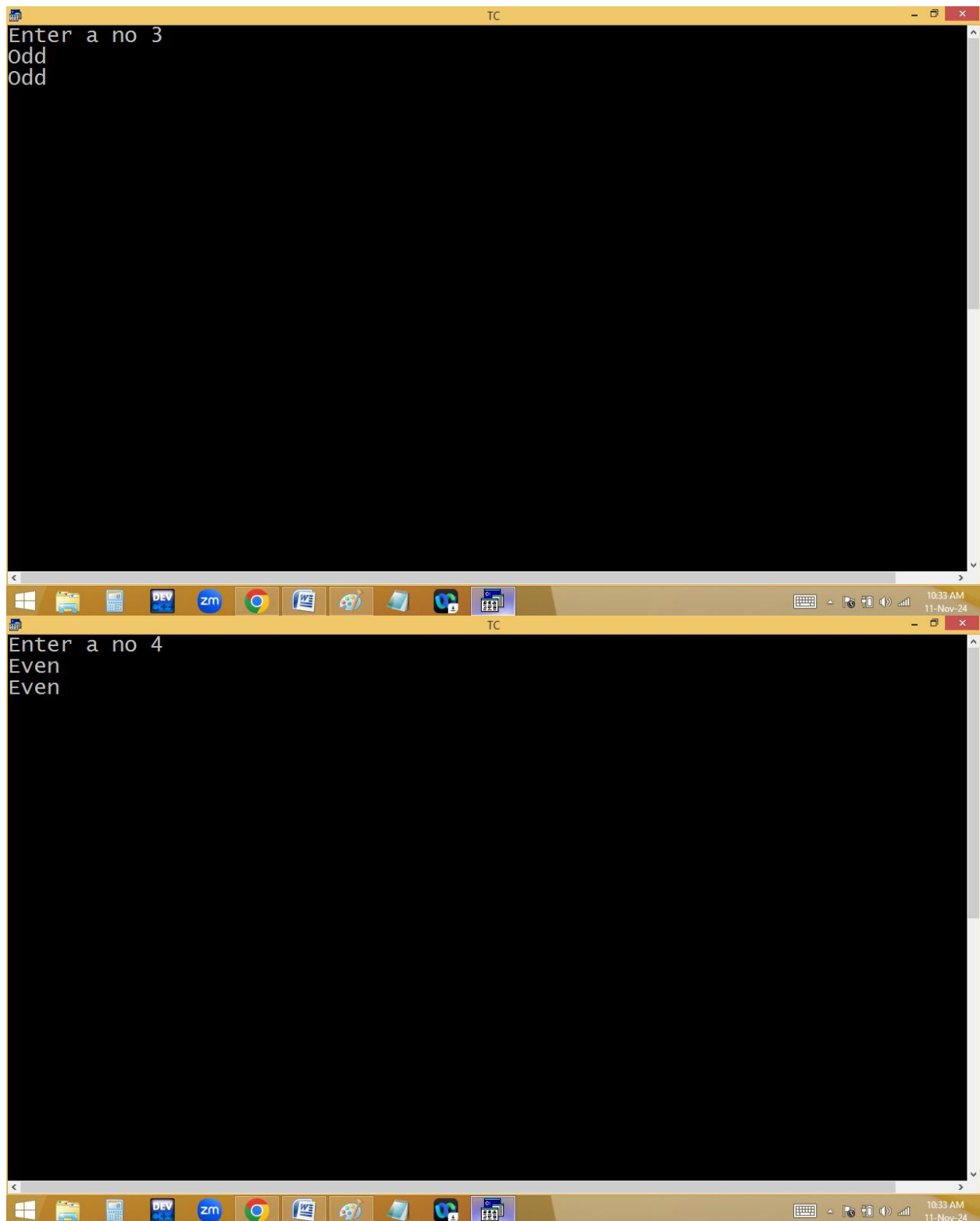
```
Line 12 Col 9 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int n;
clrscr();
printf("Enter a no "); scanf("%d",&n);

if(n%2)puts("Odd");
else puts("Even");

puts(n%2?"Odd":"Even");
getch();
}
```

Bottom Window Menu Bar: File Edit Run Compile Project Options Debug Break/watch

Bottom Window Footer: F1-Help F5-Zoom F6-Switch F7-Trace F8-Step F9-Make F10-Menu NUM



Ternary / Conditional operator(? :)

It is similar to if else / ladder if in working style.

It allows to complete if else / ladder if in a single statement.

When we are working with if else/ladder if it is going to take more than one line of statements. Ternary operator is going to finish the same task in a single statement.

But the difference between if ...else and ternary operator is ternary operator supports only one statement at a time and if supports any number of statements.

It is having 3 expressions. Hence it is called ternary operator.

It is starting with a condition. Hence it is called conditional operator.

Syntax:

condition ? true statement : false statement ;

↑ ↑ ↑

exp1/op1 exp2/op2 exp3/op3

If condition true, statement after ? executed.

If condition false, statement after : is executed.

When compared with if else, conditional operator **performance is high**.

Finding max in 2 no's using single statement/ternary op:

The image shows a screenshot of the Turbo C++ (TC) IDE. The top window displays the source code for a C program named E:9AM.C. The code includes headers for stdio.h and conio.h, and implements a main function that prompts the user for two integers, a and b. It then compares them using if-else logic and prints the result. The bottom window shows the program's execution output for the input values 3 and 3, demonstrating that both numbers are equal.

```
File Edit Run Compile Project Options Debug Break/watch
Line 10 Col 55 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a,b;
clrscr();
printf("Enter a, b values "); scanf("%d %d",&a,&b);
if(a>b)puts("a is big"); else puts("b is big");
puts(a>b?"a is big":"b is big");
if(a>b)puts("a is big");else if (b>a)puts("b is big");
else puts("Both are equal");
puts(a>b?"a is big":b>a?"b is big":"Both are equal");
getch();
}
```

F1-Help F5-Zoom F6-Switch F7-Trace F8-Step F9-Make F10-Menu NUM

Enter a, b values 3 3
b is big
b is big
Both are equal
Both are equal

```
TC
Enter a, b values 4 5
b is big
b is big
b is big
b is big
```

```
TC
Enter a, b values 6 2
a is big
a is big
a is big
a is big
```

```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 8 Col 24 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
printf("%d\n",1?2?0:3:4);
printf("%d\n",1?0?2:3:4);
printf("%d",0?1?2:3:4);_
getch();
}
```

0
3
4_

con ? t : f
 1 ? 2 ? 0 : 3 : 4
 con ? true : false

```

if( 1 )
{
  if( 2 ) p( 0 );
  else p( 3 );
}
else p( 4 );
  
```

con ? t : f
 1 ? 0 ? 2 : 3 : 4
 con ? true : false

```

if( 1 )
{
  if( 0 ) p( 2 );
  else p( 3 );
}
else p( 4 );
  
```

con ? t : f
 0 ? 1 ? 2 : 3 : 4
 con ? true : false

```

if( 0 )
{
  if( 1 ) p( 2 );
  else p( 3 );
}
else p( 4 );
  
```

