\*\*\*\*\*\*\*\*\*\*\*\*\* VOWEL \*\*\*\*\*\*\*\*\*\*

**SOLUTION:**

char alphabet ;

Console.Write("ENTER ANY ALPHABET: ");

alphabet = char.Parse(Console.ReadLine());

switch(alphabet)

{

case 'A':

case 'a':

case 'E':

case 'e':

case 'I':

case 'i':

case 'O':

case 'o':

case 'U':

case 'u':

Console.WriteLine(" THIS ALPHABET IS VOWEL");

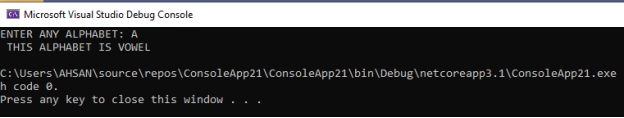
break;

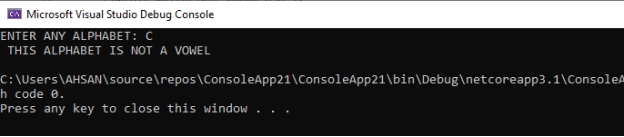
default:

Console.WriteLine(" THIS ALPHABET IS NOT A VOWEL");

break;

**OUTPUT:**





**EVEN / ODD**

**SOLUTION:**

int num;

Console.Write("enter any number: ");

num = int.Parse(Console.ReadLine());

if(num%2==0)

{

Console.WriteLine(" number is even ");

}

else

{

Console.WriteLine(" number is odd ");

}

**OUTPUT:**





\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* **weather outcast** \*\*\*\*\*\*\*\*\*

**SOLUTION:**

Console.WriteLine("--------sunny\n--------overcast\n--------rain");

for (int i = 0; i < 3; i++)

{

Console.WriteLine("enter any condition from above--");

Console.Write("enter weather outlook: ");

string outlook = Console.ReadLine();

switch (outlook)

{

case "sunny":

Console.WriteLine("please input high or normal to check weather condition");

Console.Write("enter humidity: ");

string humidity = Console.ReadLine();

if (humidity == "high")

{

Console.WriteLine("match not possible");

}

else if (humidity == "normal")

{

Console.WriteLine("match possible");

}

else

{

Console.WriteLine("invalid entery please select high or normal");

}

break;

case "overcast":

Console.WriteLine("match possile! ");

break;

case "rain":

Console.WriteLine("please input strong or weak to check wind condition");

Console.Write("enter wind condition: ");

string wind = Console.ReadLine();

if (wind == "strong")

{

Console.WriteLine("match not possible");

}

else if (wind == "weak")

{

Console.WriteLine("match possible");

}

else

{

Console.WriteLine("invalid entery please select strong or weak");

}

break;

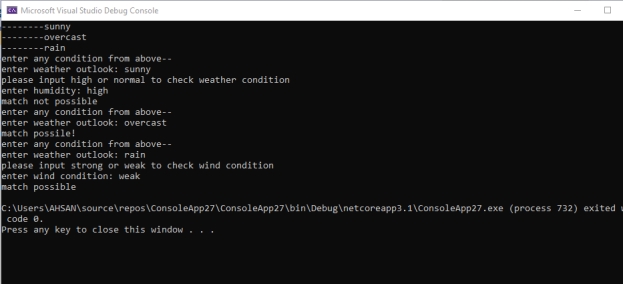
default:

Console.WriteLine("invalid input please select sunny,overcast or rain");

break;

}

}

**OUTPUT:**

**EXPENSE OF YEAR**

**SOLUTION:**

{

double exp, total\_exp=0;

for (int i = 1; i < 13; i++)

{

Console.Write("enter month {0} expense: ", i);

exp = double.Parse(Console.ReadLine());

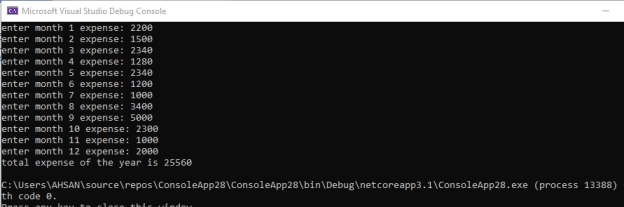
total\_exp = total\_exp + exp;

}

Console.WriteLine("total expense of the year is {0}",total\_exp);

}

**OUTPUT:**



**FIND HOW MANY EVEN OR ODD**

**SOLUTION:**

int even = 0, odd = 0;

for (int i = 1; i <= 5; i++)

{

Console.Write("enter num: ");

int num = int.Parse(Console.ReadLine());

if (num % 2 == 0)

{

even += 1;

}

else if (num % 2 != 0)

{

odd += 1;

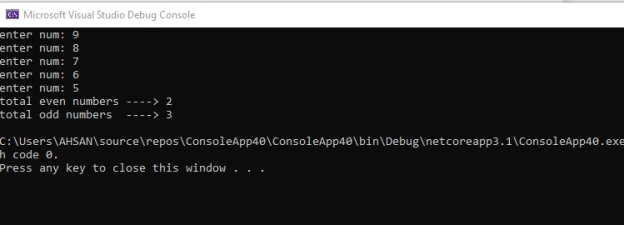
}

}

Console.WriteLine("total even numbers ----> " + even);

Console.WriteLine("total odd numbers ----> " + odd);

**OUTPUT:**



**SOLUTION:** int i = 0;

char res;

do

{

Console.Write("ENTER YOUR NAME: ");

String name = Console.ReadLine();

Console.Write("enter your age: ");

int age = int.Parse(Console.ReadLine());

if (age >= 50)

{

Console.Write("enter your contact no: ");

double contact = double.Parse(Console.ReadLine());

i++;

}

Console.Write("is he the last person (y/n): ");

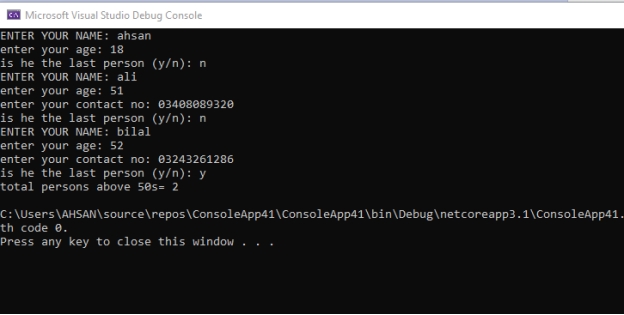
res = char.Parse(Console.ReadLine());

}

while (res == 'n');

Console.WriteLine("total persons above 50s= "+i);

**OUTPUT:**



**\*\*\*\*\*\*\*\*\*\*\* PROFILE \*\*\*\*\*\*\*\*\*\*\*\*\***

**SOLUTION:**

string name,fname;

int age;

double pno;

Console.Write("enter your name: ");

name = Console.ReadLine();

Console.Write("enter your name: ");

fname = Console.ReadLine();

Console.Write("enter your phone no: ");

pno = Convert.ToDouble(Console.ReadLine());

Console.Write("enter your age: ");

age =Convert.ToInt32 (Console.ReadLine());

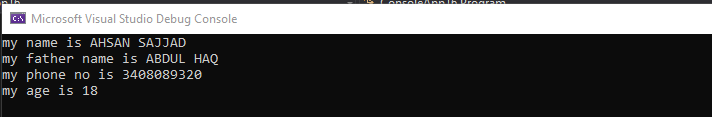
Console.Clear();

Console.WriteLine("my name is " + name);

Console.WriteLine("my father name is "+fname);

Console.WriteLine("my phone no is "+pno);

Console.WriteLine("my age is "+age);

**Output:** 

\*\*\*\*\*\* MY RESULT \*\*\*\*\*\*

**SOLUTION:**

{

int marks;

Console.WriteLine("\n\*\*\*\*\*\* MY RESULT \*\*\*\*\*\*\*\*\*\*");

Console.Write("enter your marks: ");

marks = int.Parse(Console.ReadLine());

Console.WriteLine("");

if (marks >= 80)

{

Console.WriteLine("MY GRADE IS \"A+\"");

}

else if (marks < 80 && marks >= 70)

{

Console.WriteLine("MY GRADE IS \"A\"");

}

else if (marks < 70 && marks >= 60)

{

Console.WriteLine("MY GRADE IS \"B\"");

}

else if (marks < 60 && marks >= 50)

{

Console.WriteLine("MY GRADE IS \"C\"");

}

else if (marks < 50 && marks >= 33)

{

Console.WriteLine("MY GRADE IS \"D\"");

}

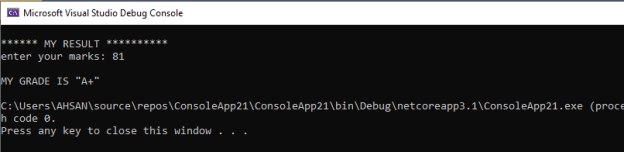
else if (marks < 33 && marks > 0)

{

Console.WriteLine("YOU ARE FAIL");

}

**OUTPUT:**



**ASSI # QUE**

1. Write a c# program to find that a person is allowed to sit in BSE-1. (Hint: He is allowed if he belongs to BUKC and he is the student of first semester and he is a student of software engineering).

**SOLUTION:**

string university, department, semester;

Console.WriteLine("\*\*\*\*\*\*\*\*\*\*\*\* checking system\*\*\*\*\*\*\*\*\*\*\*");

Console.WriteLine("\n1) bahrian");

Console.WriteLine("2) outsider");

Console.Write("\nenter your identity: ");

double input = double.Parse(Console.ReadLine());

if (input == 1)

{

Console.Write("enter your university name: ");

university = Console.ReadLine();

Console.Write("enter your semester: ");

semester = Console.ReadLine();

Console.Write("enter your department: ");

department = Console.ReadLine();

if (semester == "1B" || semester == "1b" && department == "bse" || department == "BSE" && university == "bukc" && university == "BUKC")

{

Console.WriteLine("YOU ARE ALLOWED TO ENTER ");

}

else

{

Console.WriteLine("");

}

}

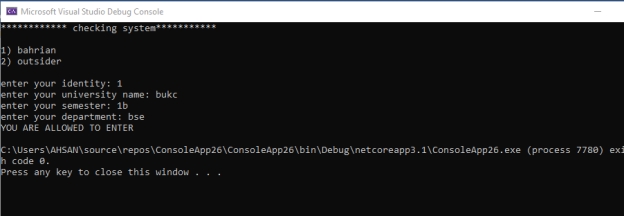
else

{

Console.WriteLine("you are outsider ");

}

**OUTPUT:**



2. Write a c# program to check if the given year is a leap year or not (A year may be a leap year if it is evenly divisible by 4. Years that are divisible by 100 (century years such as 1900 or 2000) cannot be leap years unless they are also divisible by 400)).

**SOLUTION:**

for (int i = 0; i < 2; i++)

{

double year;

Console.Write("ENTER ANY YEAR: ");

year = double.Parse(Console.ReadLine());

if (year % 4 == 0 && (year % 400 == 0 || year % 100 != 0))

{

Console.WriteLine(" This is leap year");

}

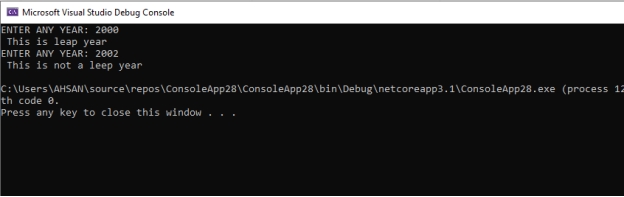
else

{

Console.WriteLine(" This is not a leep year");

}

}

**OUTPUT:** 

3. Write a C# program that takes integer between 1 and 7 from user and displays the name of the weekday using switch-case [day’s starts with Friday].

**SOLUTION:**

int number;

Console.Write("enter number (1--7) to check the name of weekday: ");

number = int.Parse(Console.ReadLine());

switch (number)

{

case 1:

Console.WriteLine("FRIDAY");

break;

case 2:

Console.WriteLine("SATURDAY");

break;

case 3:

Console.WriteLine("SUNDAY");

break;

case 4:

Console.WriteLine("MONDAY");

break;

case 5:

Console.WriteLine("TUESDAY");

break;

case 6:

Console.WriteLine("WEDNESDAY");

break;

case 7:

Console.WriteLine("THURSDAY");

break;

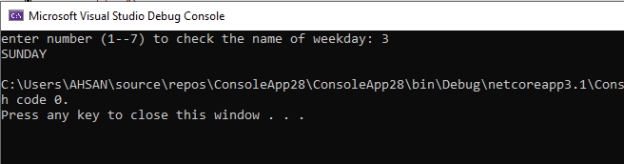
default:

Console.WriteLine("please select (1-7) number to check the name of weekday ");

break;

}

**OUTPUT:**



4. Write a c# program to print number of days in given month using switch-case.

**SOLUTION:**

Console.Write("enter your month name: ");

string month = (Console.ReadLine());

switch (month)

{

case "january":

case "march":

case "may":

case "july":

case "august":

case "october":

case "december":

Console.WriteLine("this month have 31 days");

break;

case "feburary":

Console.WriteLine("this month have 28 or 29 days");

break;

case "april":

case "june":

case "september":

case "november":

Console.WriteLine("this month have 30 days");

break;

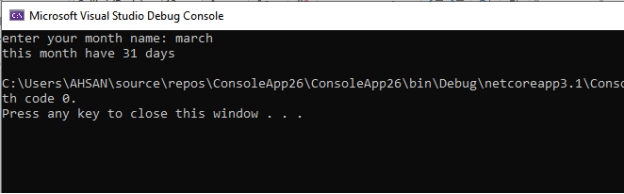
default:

Console.WriteLine("OFF CAPS LOCK or WRONG SPELLING OF MONTH NAME");

break;

}

**OUTPUT:**



5. Write a c# program to check if given triangle is equilateral, isosceles or scalene.

**SOLUTION:**

double side1, side2, side3;

Console.Write("enter first side: ");

side1 = double.Parse(Console.ReadLine());

Console.Write("enter second side: ");

side2 = double.Parse(Console.ReadLine());

Console.Write("enter third side: ");

side3 = double.Parse(Console.ReadLine());

if (side1 == side2 && side2 == side3 && side3 == side1)

{

Console.WriteLine("\*\*\*\*\*\*\*\*\*\*\*\*\*THIS IS EQUALITERAL TRIANGLE\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

}

else if (side1 == side2 || side2 == side3 || side3 == side1)

{

Console.WriteLine("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*THIS IS ISOSCELES TRIANGLE\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

}

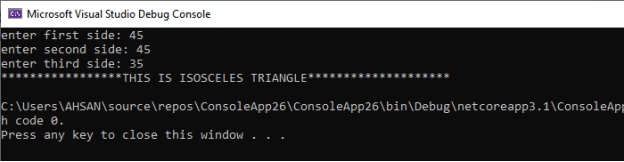
else if (side1 != side2 && side2 != side3 && side3 != side1)

{

Console.WriteLine("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*`THIS IS SCALENE TRIANGLE\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

}

**OUTPUT:**



6. Write a C# program for each condition given below:

a) x > y > z

b) x and y are both less than 0

c) neither x nor y is less than 0

d) x is equal to y but not equal to z.

**SOLUTION:**

int x, y, z;

Console.Write("enter value of x: ");

x = int.Parse(Console.ReadLine());

Console.Write("enter value of y: ");

y = int.Parse(Console.ReadLine());

Console.Write("enter value of z: ");

z = int.Parse(Console.ReadLine());

if (x > y && y > z)

{

Console.WriteLine("{0}>{1}>{2}", x, y, z);

}

else if (x < 0 && y < 0)

{

Console.WriteLine("x and y are both less than zero");

}

else if (x > 0 && y > 0)

{

Console.WriteLine("neither x nor y is less than zero");

}

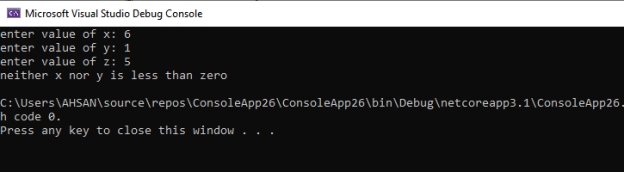
else if (x == y && x != z)

{

Console.WriteLine(" x is equal to y but not equal to z.");

}

**OUTPUT:**



7. Write a c# program to calculate discount for a departmental store. The departmental store has two types of customers: 1) Walk-in customers 2) Registered customers. For registered customers, they are offering 5% discount if their monthly transaction is more than Rs.100000 and 5.5% discount if their monthly transaction is more than Rs.200000, otherwise they will get a discount of 3.5%. For Walk-in customers a 2% discount is available if the transaction amount is more than 50,000.

**SOLUTION:**

Console.WriteLine("\*\*\*\*\*\*\*\*\*\*\*\* DISCOUNT\*\*\*\*\*\*\*\*\*\*\*\*\*");

Console.WriteLine("\n1) walk-in customer");

Console.WriteLine("2) registered customer");

Console.Write("\nenter your identity: ");

int identity = int.Parse(Console.ReadLine());

Console.Write("enter your transaction: ");

double transaction = double.Parse(Console.ReadLine());

if (identity == 1)

{

if (transaction >= 50000)

{

double bill = transaction \* 0.02;

double Tbill = transaction - bill;

Console.WriteLine("you get 2% discount-----");

Console.WriteLine("your discount payment is {0}", Tbill);

}

else

{

Console.WriteLine("no dicount because your transaction is less then our range");

}

}

else if (identity == 2)

{

if (transaction > 100000 && transaction<200000)

{

double bill = transaction \* 0.05;

double Tbill = transaction - bill;

Console.WriteLine("you get 5% discount-----");

Console.WriteLine("your discount payment is {0}", Tbill);

}

else if (transaction > 200000)

{

double bill = transaction \* 0.055;

double Tbill = transaction - bill;

Console.WriteLine("you get 5.5% discount-----");

Console.WriteLine("your discount payment is {0}", Tbill);

}

else if (transaction > 0&&transaction<100000)

{

double bill = transaction \* 0.035;

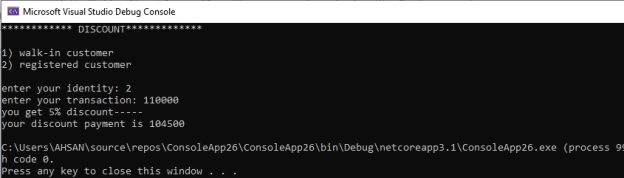
double Tbill = transaction - bill;

Console.WriteLine("you get 3.5% discount-----");

Console.WriteLine("your discount payment is {0}", Tbill);

}

}

**OUTPUT:** 

8. Write a c# program to calculate the total fee of a student of Bahria University (@ Rs.5000 per credit hour). There is a 50% discount for students from a naval background, a 20% discount for students with a sibling already studying in Bahria University and a 30% discount for Bahria University permanent employees.

**SOLUTION:**

double d\_fee, credithours = 15, fee;

fee = credithours \* 5000;

Console.WriteLine("1) naval background \"student\"");

Console.WriteLine("2) sibling already study \"student\"");

Console.WriteLine("3) permanent employees \"student\"");

Console.Write("\nshow your identity from above: ");

int identity = int.Parse(Console.ReadLine());

if (identity == 1)

{

double discount = fee \* 0.5;

d\_fee = fee - discount;

Console.WriteLine("your total fee without dicount is {0}",fee);

Console.WriteLine("your required fee to pay after discount is: {0}", d\_fee);

}

else if (identity == 2)

{

double discount = fee \* 0.2;

d\_fee = fee - discount;

Console.WriteLine("your total fee without dicount is {0}", fee);

Console.WriteLine("your required fee to pay after discount is: {0}", d\_fee);

}

else if (identity == 3)

{

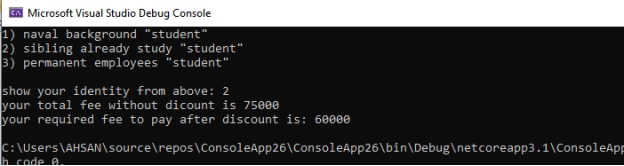
double discount = fee \* 0.3;

d\_fee = fee - discount;

Console.WriteLine("your total fee without dicount is {0}", fee);

Console.WriteLine("your required fee to pay after discount is: {0}", d\_fee);

}

**OUTPUT:** 

9. Write a c# program to calculate the total hospital bill for tests performed. When a discount of 50% is offered for community members, 30% for the needy and 20% for employees of the hospital.

**SOLUTION:**

int x;

double d\_total, discount;

Console.WriteLine("1) community member");

Console.WriteLine("2) needy");

Console.WriteLine("3) employee");

Console.Write("\nshow your identity from above: ");

x = int.Parse(Console.ReadLine());

Console.Write("Enter Your bill: ");

double total = double.Parse(Console.ReadLine());

if (x == 1)

{

discount = total \* 0.5;

d\_total = total - discount;

Console.WriteLine(" Bill Required to pay after discount = " + d\_total);

}

else if (x == 2)

{

discount = total \* 0.3;

d\_total = total - discount;

Console.WriteLine(" Bill Required to pay after discount = "+ d\_total);

}

else if (x == 3)

{

discount = total \* 0.2;

d\_total = total - discount;

Console.WriteLine(" Bill Required to pay after discount = " + d\_total);

}

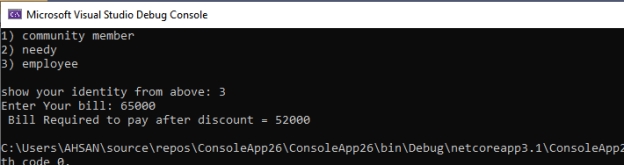
else

{

Console.WriteLine("wrong identity");

}

**OUTPUT:**



10. Suppose gpa is a variable containing the grade point average of a student. Suppose the goal of a program is to let a student know if he/she made the Dean's list (the gpa must be 3.5 or above). Write an if... else... statement that prints out the appropriate message (either "Congratulations—you made the Dean's List" or "Sorry you didn't make the Dean's List").

**SOLUTION:**

double gpa;

Console.Write("enter your GPA: ");

gpa = double.Parse(Console.ReadLine());

if (gpa >= 3.5)

{

Console.WriteLine("congratulation----you made the dean's list");

}

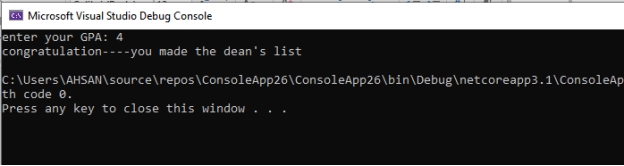
else

{

Console.WriteLine("sorry you didn't make the dean's list");

}

**OUTPUT:**



\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* **PRACTICE QUESTION**  \*\*\*\*\*\*\*\*\*\*\*\*\*

1.

Write a c# program to find the highest marks of three students.

**SOLUTION:** double a, b, c;

Console.Write(" enter marks of first student: ");

a = double.Parse(Console.ReadLine());

Console.Write(" enter marks of second student: ");

b = double.Parse(Console.ReadLine());

Console.Write(" enter marks of third student: ");

c = double.Parse(Console.ReadLine());

if (a>b&&a>c)

{

Console.WriteLine("student first got highest marks");

}

else if (b>a&&b>c)

{

Console.WriteLine("student second got highest marks");

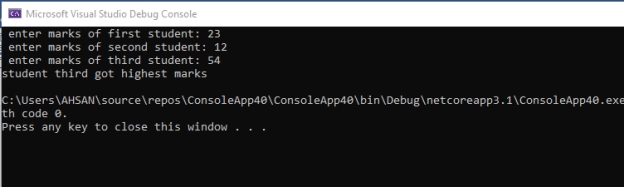
}

else

{

Console.WriteLine("student third got highest marks");

}

**OUTPUT:** 

2.

Write a c# program to calculate sum of weekly expenditure using for and while loop.

**SOLUTION:**

double exp, tot\_exp = 0;

for (int i = 1; i <= 7; i++)

{

Console.Write("enter expense of {0} day: ", i);

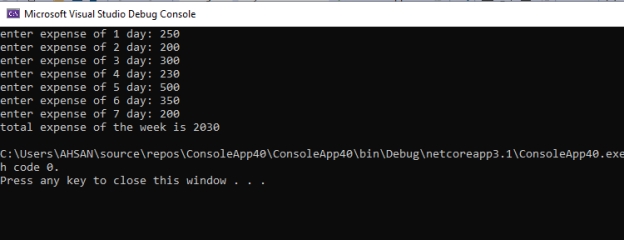
exp = double.Parse(Console.ReadLine());

tot\_exp += exp;

}

Console.WriteLine("total expense of the week is "+tot\_exp);

**OUTPUT:**



3.

Write a c# program to check whether a person can vote or not (is age more than or equal

to 18).

**SOLUTION:** Console.Write("ENTER YOUR AGE: ");

int age = int.Parse(Console.ReadLine());

if (age>=18)

{

Console.WriteLine("you can vote");

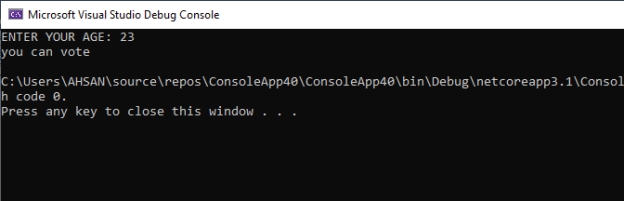
}

else

{

Console.WriteLine("you can't vote");

}

**OUTPUT:** 

4.

Write a c# program to solve quadratic equations (use if, else if and else).

Outputs:

“The roots are " + r1 + " and " + r2

OR

"The root is " + r1

OR

The equation has no real roots.

**SOLUTION:**

double a, b, c;

double qua\_eq,r1,r2;

Console.Write(" enter value of a: ");

a = double.Parse(Console.ReadLine());

Console.Write(" enter value of b: ");

b = double.Parse(Console.ReadLine());

Console.Write(" enter value of c: ");

c = double.Parse(Console.ReadLine());

double root\_ans = (b \* b) -( 4 \* a \* c) ;

double root = Math.Sqrt(root\_ans);

if (a!=0)

{

if (root\_ans<0 )

{

Console.WriteLine("root is not real");

}

else if (root\_ans==0)

{

qua\_eq = -b / (2 \* a);

Console.WriteLine("quadratic equation= "+qua\_eq);

}

else

{

r1=(-b+root)/(2\*a);

r2=(-b-root)/(2\*a);

Console.WriteLine("quadratic equation-----> r1 = {0} and r2 = {1}",r1,r2);

}

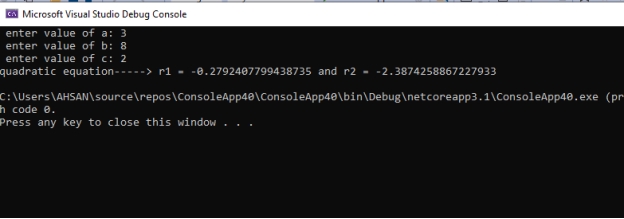
}

else

{

Console.WriteLine("root is infinity");

}

**OUTPUT:** 

5.

Write a c# program to check whether given number is divisible by 7 and 11.

**SOLUTION:** Console.Write("ENTER ANY NUMBER: ");

int num = int.Parse(Console.ReadLine());

if (num%7==0&&num%11==0)

{

Console.WriteLine("given number is divisible by 7 and 11. ");

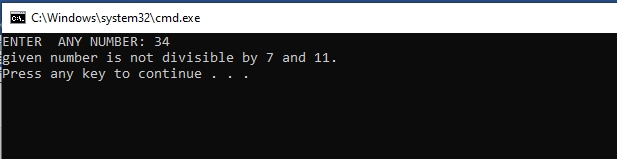
}

else

{

Console.WriteLine("given number is not divisible by 7 and 11. ");

}

**OUTPUT:** 

6.

Write a c# program to check if the given number is positive, negative or zero

**SOLUTION:** Console.Write("ENTER ANY NUMBER: ");

int num = int.Parse(Console.ReadLine());

if (num<0)

{

Console.WriteLine("number is negative");

}

else if (num==0)

{

Console.WriteLine("number is zero");

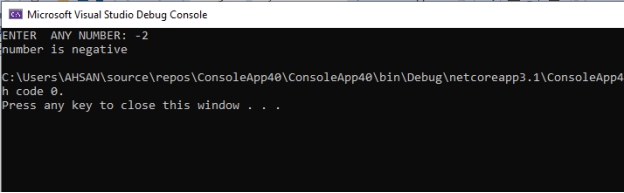
}

else

{

Console.WriteLine("number is positive");

}

**OUTPUT:** 

.7.

Write a c# program to check if given alphabet is a vowel or not.

**SOLUTION:** Console.Write("enter any alphabet: ");

char alphabet = char.Parse(Console.ReadLine());

if (alphabet=='a'|| alphabet == 'A' || alphabet == 'e' || alphabet == 'E' || alphabet == 'i' || alphabet == 'I' || alphabet == 'o' || alphabet == 'O' || alphabet == 'U' || alphabet == 'u')

{

Console.WriteLine("given alphabet is vowel");

}

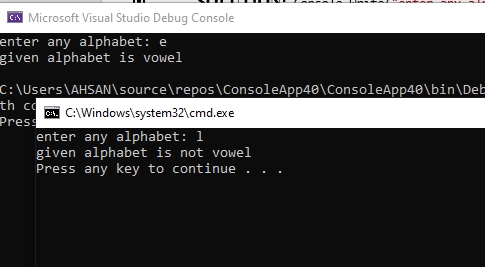
else

{

Console.WriteLine("given alphabet is not vowel");

}

**OUTPUT:**



8.

Write a c# program for user account login for userid = “admin” and password =

“123456” (check userid and password).

**SOLUTION:** const string userid = "admin";

const double password = 123456;

Console.Write("enter userid: ");

string user\_id = Console.ReadLine();

Console.Write("enter password: ");

double passkey = double.Parse(Console.ReadLine());

if (passkey ==password && userid==user\_id)

{

Console.WriteLine("ACCOUNT LOGIN");

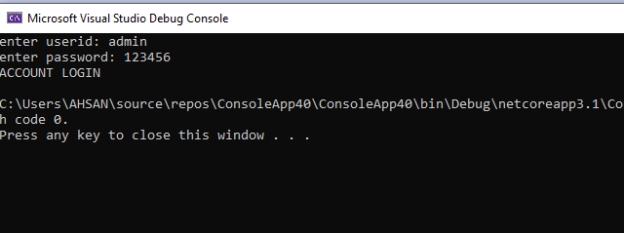
}

else

{

Console.WriteLine("invalid id or password");

}

**OUTPUT:** 

9.

Write a c# program to print number of days in given month using if-else

**SOLUTION:** Console.Write("enter any month number sequentially: ");

int month = int.Parse(Console.ReadLine());

if (month==1|| month == 3 || month == 5 || month == 7 || month == 8 || month == 10 || month == 12)

{

Console.WriteLine("given month have 31 days");

}

else if (month == 4|| month == 6 || month == 9 || month == 11)

{

Console.WriteLine("given month have 30 days");

}

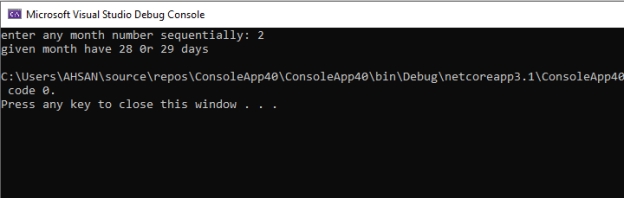
else

{

Console.WriteLine("given month have 28 0r 29 days");

}

**OUTPUT:**



11. Write a c# program to check if given triangle is a right angle, obtuse angle or acute angle

triangle

**SOLUTION:** Console.Write("enter angle to check triangle shape: ");

double angle = double.Parse(Console.ReadLine());

if (angle==90)

{

Console.WriteLine("right triangle");

}

else if (angle>90)

{

Console.WriteLine("obtuse triangle");

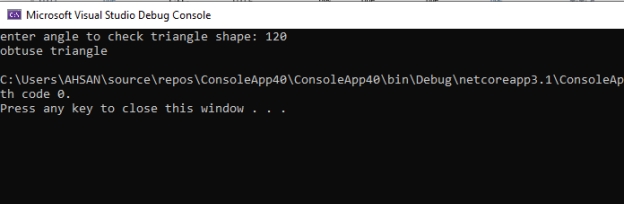
}

else

{

Console.WriteLine("acute triangle");

}

**OUTPUT:** 

12. Write a c# program to print an appropriate message for Go, Stop and Wait on the bases of

traffic lights by taking color of light as input.

**SOLUTION:**

Console.WriteLine("enter light colour \"red, yellow and green\"");

string colour = Console.ReadLine();

if (colour=="green")

{

Console.WriteLine("GO");

}

else if (colour=="red")

{

Console.WriteLine("STOP");

}

else

{

Console.WriteLine("WAIT");

}

**OUTPUT:** 