**qwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmrtyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmrtyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmrtyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmrtyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmrtyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmrtyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmrtyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnmqwertyuiopasdfghjklzxcvbnm**

|  |
| --- |
| Programming Fundamentals  Assignment # 3  10/27/2019  Muhammad Abdullah  SE (A)  19F-0916 |

Question # 1:

Input 3 number and find the greatest number using switch.

PROGRAM:

#include <iostream>

using namespace std;

int main()

{

int a,b,c,n;

cout<<"Enter the 1st number : ";

cin>>a;

cout<<endl<<"Enter the 2nd number : ";

cin>>b;

cout<<endl<<"Enter the 3rd number : ";

cin>>c;

cout<<endl<<"Press 1 to start checking ";

cin>>n;

switch(n)

{

case 1:

if (a>b && a>c)

cout<<endl<<"1st number is greater "<<a;

case 2:

if (b>a && b>c)

cout<<endl<<"2nd number is greater "<<b;

case 3:

if (c>a && c>b)

cout<<endl<<"3rd number is greater "<<c;

break;

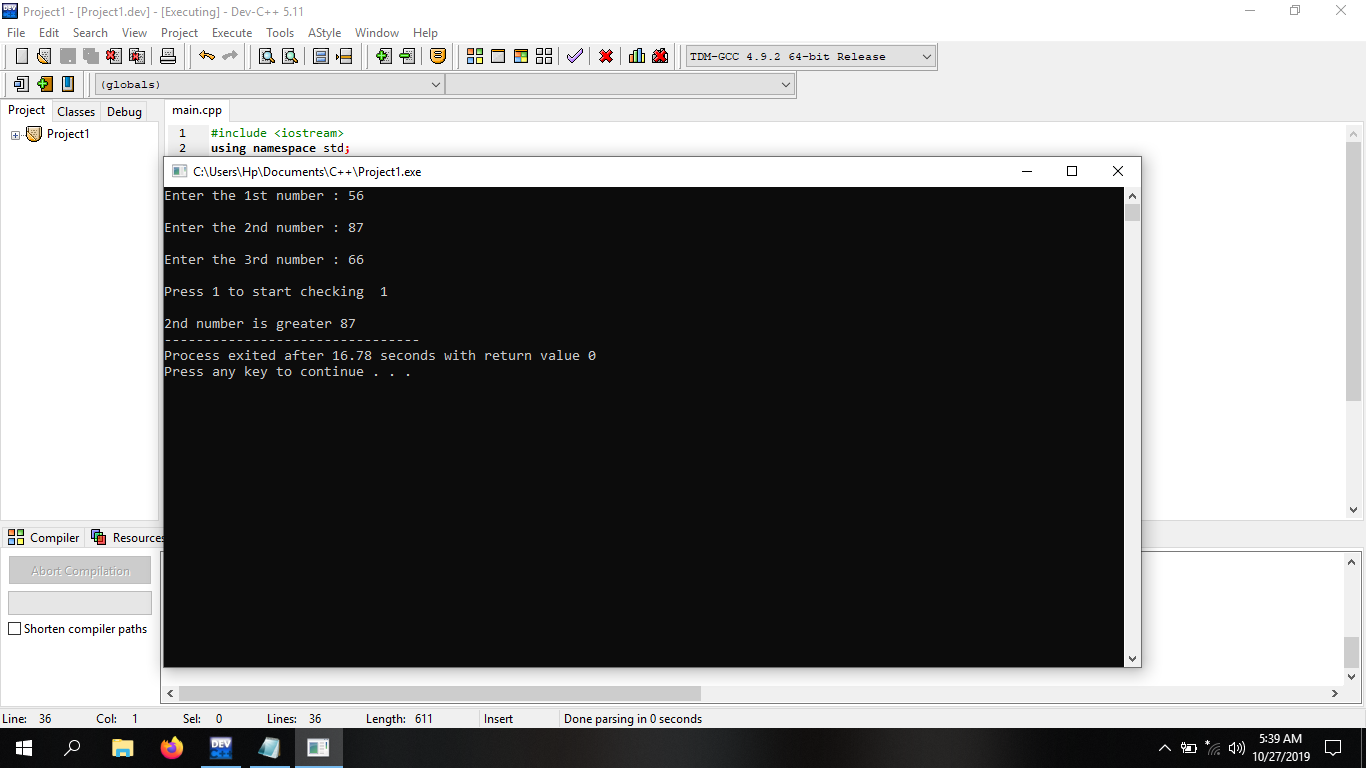
default:

cout<<"Have a nice day";

}

return 0;

}



Question # 2:

Take 3 digit number from user and check whether it is a Armstrong number or not.

PROGRAM:

#include <iostream>

using namespace std;

int main()

{

int a,b,c,n,i;

cout<<"Enter a 3-digit number : ";

cin>>n;

cout<<endl;

c=n%10;

i=n/10;

b=i%10;

i=i/10;

a=i%10;

if((a\*a\*a)+(b\*b\*b)+(c\*c\*c)==n)

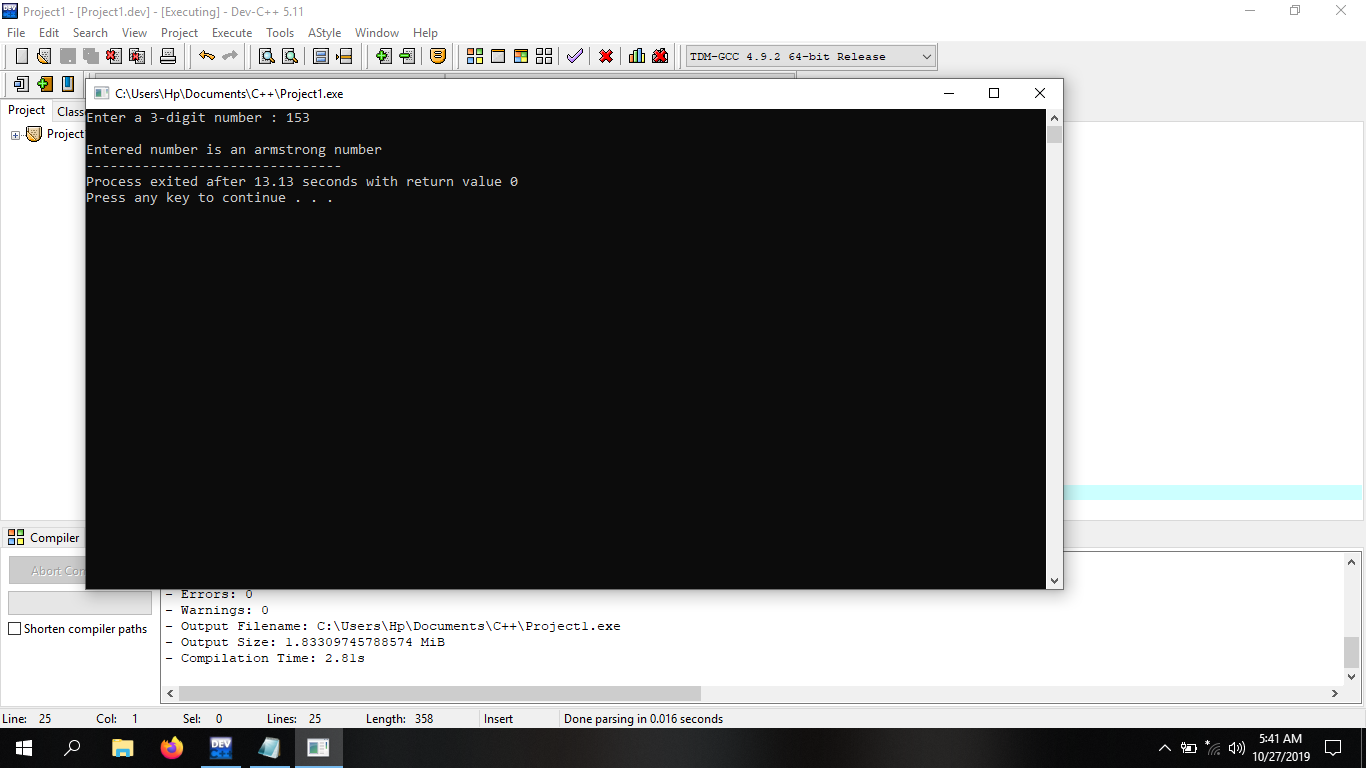
cout<<"Entered number is an armstrong number";

else

cout<<"Entered number is not an armstrong number";

return 0;

}



Question # 3:

Input day, month and year from user and right it in month day, year format.

PROGRAM BY USING ELSE IF:

#include <iostream>

using namespace std;

int main()

{

int month,day,year;

cout<<"Enter your birth month by pressing 1-12 : ";

cin>>month;

cout<<endl<<"Enter your birth date : ";

cin>>day;

cout<<endl<<"Enter your birth year : ";

cin>>year;

cout<<endl;

if(day>=1 && day<=31)

{

if(month==1)

cout<<"JAN "<<day<<" "<<year;

else if(month==2)

cout<<"FEB "<<day<<" "<<year;

else if(month==3)

cout<<"MAR "<<day<<" "<<year;

else if(month==4)

cout<<"APR "<<day<<" "<<year;

else if(month==5)

cout<<"MAY "<<day<<" "<<year;

else if(month==6)

cout<<"JUNE "<<day<<" "<<year;

else if(month==7)

cout<<"JULY "<<day<<" "<<year;

else if(month==8)

cout<<"AUG "<<day<<" "<<year;

else if(month==9)

cout<<"SEP "<<day<<" "<<year;

else if(month==10)

cout<<"OCT "<<day<<" "<<year;

else if(month==11)

cout<<"NOV "<<day<<" "<<year;

else if(month==12)

cout<<"DEC "<<day<<" "<<year;

else

cout<<"Invalid Entry in Month";

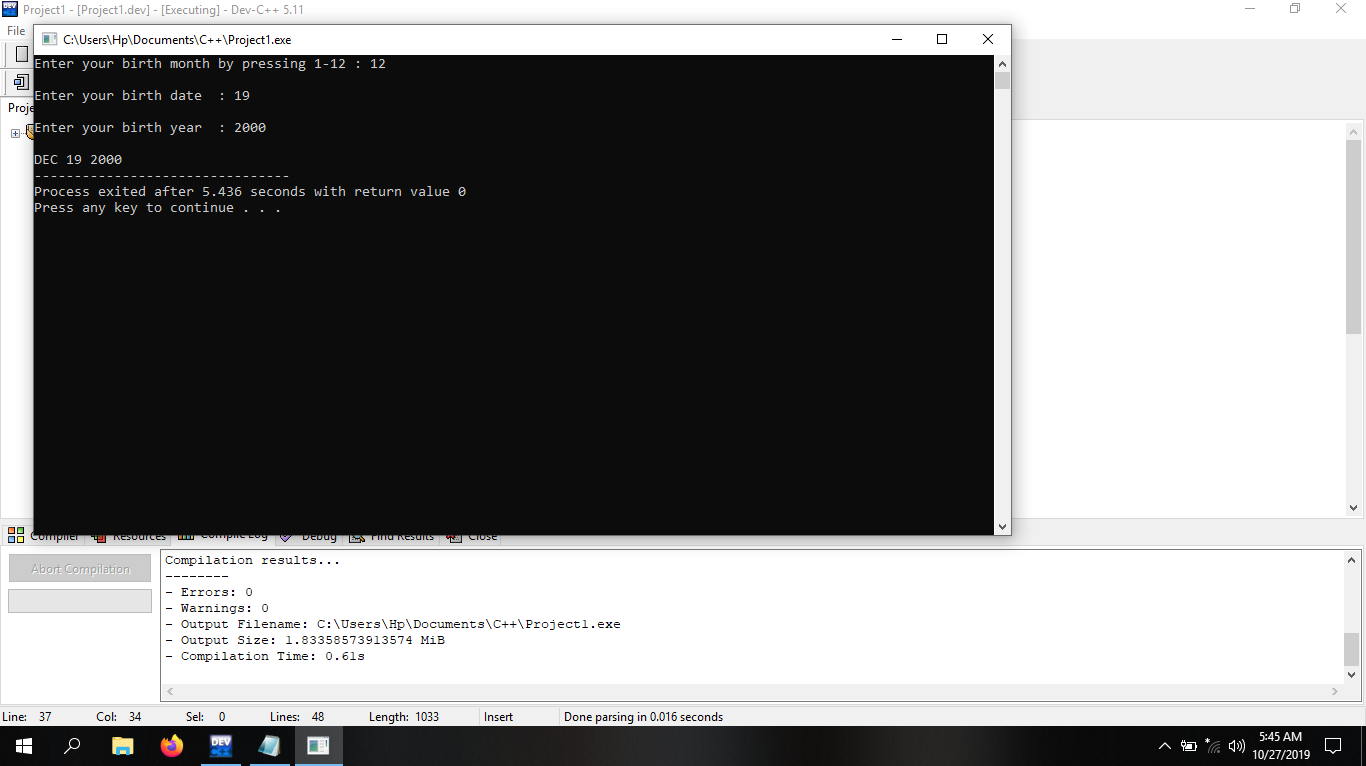
}

else

cout<<"Wrong Input in Date";

return 0;

}



PROGRAM BY USING SWITCH:

#include <iostream>

using namespace std;

int main()

{

int month,day,year;

cout<<"Enter your birth month by pressing 1-12 : ";

cin>>month;

cout<<endl<<"Enter your birth date : ";

cin>>day;

cout<<endl<<"Enter your birth year : ";

cin>>year;

cout<<endl;

if(day>=1 && day<=31)

{

switch(month)

{

case 1:

cout<<"JAN "<<day<<" "<<year;

break;

case 2:

cout<<"FEB "<<day<<" "<<year;

break;

case 3:

cout<<"MAR "<<day<<" "<<year;

break;

case 4:

cout<<"APR "<<day<<" "<<year;

break;

case 5:

cout<<"MAY "<<day<<" "<<year;

break;

case 6:

cout<<"JUNE "<<day<<" "<<year;

break;

case 7:

cout<<"JULY "<<day<<" "<<year;

break;

case 8:

cout<<"AUG "<<day<<" "<<year;

break;

case 9:

cout<<"SEP "<<day<<" "<<year;

break;

case 10:

cout<<"OCT "<<day<<" "<<year;

break;

case 11:

cout<<"NOV "<<day<<" "<<year;

break;

case 12:

cout<<"DEC "<<day<<" "<<year;

break;

default:

cout<<"Invalid Entry in Month";

}

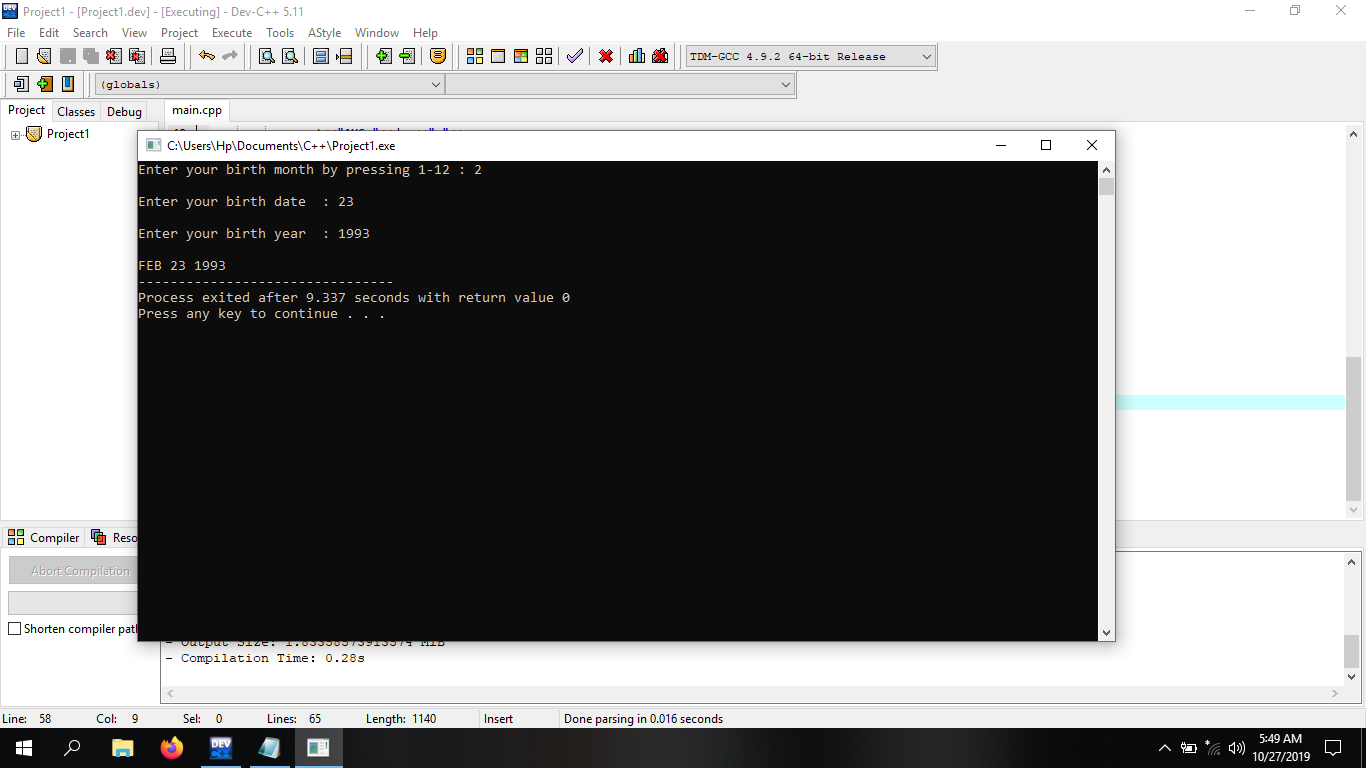
}

else

cout<<"Invalid Entry in Date";

return 0;

}



QUESTION # 4:  
Check whether the entered character is vowel or consonant:

PROGRAM BY ELSE IF:

#include <iostream>

using namespace std;

int main()

{

int a,e,i,o,u,A,E,I,O,U;

char x;

cout<<"Enter a single character : ";

cin>>x;

if(x=='a' || x=='A')

cout<<"Entered character is a vowel";

else if(x=='e' || x=='E')

cout<<"Entered character is a vowel";

else if(x=='i' || x=='I')

cout<<"Entered character is a vowel";

else if(x=='o' || x=='O')

cout<<"Entered character is a vowel";

else if(x=='u' || x=='U')

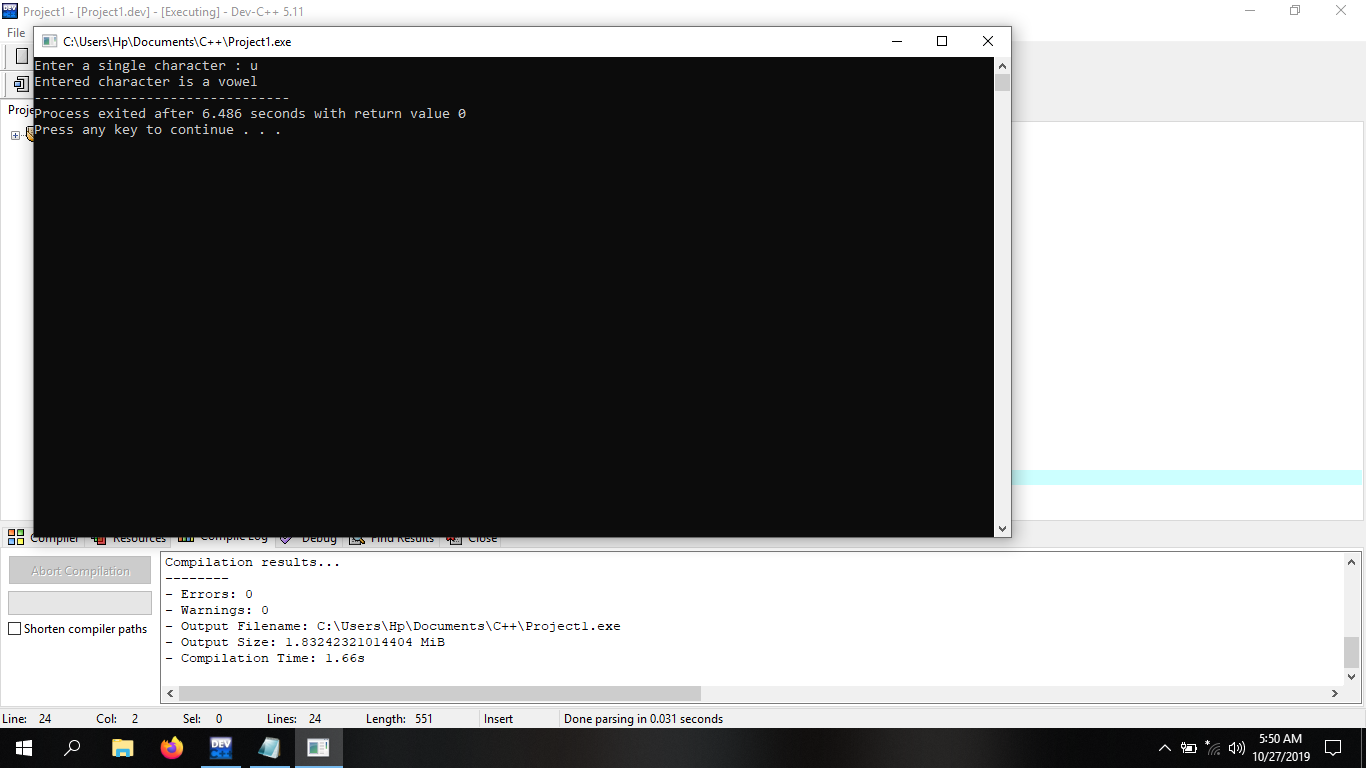
cout<<"Entered character is a vowel";

else

cout<<"Entered character is a consonent";

return 0;

}



PROGRAM BY USING SWITCH:

#include <iostream>

using namespace std;

int main()

{

int a,e,i,o,u,A,E,I,O,U;

char x;

cout<<"Enter a single character : ";

cin>>x;

switch(x)

{

case 'a':

cout<<"Entered character is a vowel";

break;

case 'b':

cout<<"Entered character is a vowel";

break;

case 'c':

cout<<"Entered character is a vowel";

break;

case 'd':

cout<<"Entered character is a vowel";

break;

case 'e':

cout<<"Entered character is a vowel";

break;

case 'A':

cout<<"Entered character is a vowel";

break;

case 'E':

cout<<"Entered character is a vowel";

break;

case 'I':

cout<<"Entered character is a vowel";

break;

case 'O':

cout<<"Entered character is a vowel";

break;

case 'U':

cout<<"Entered character is a vowel";

break;

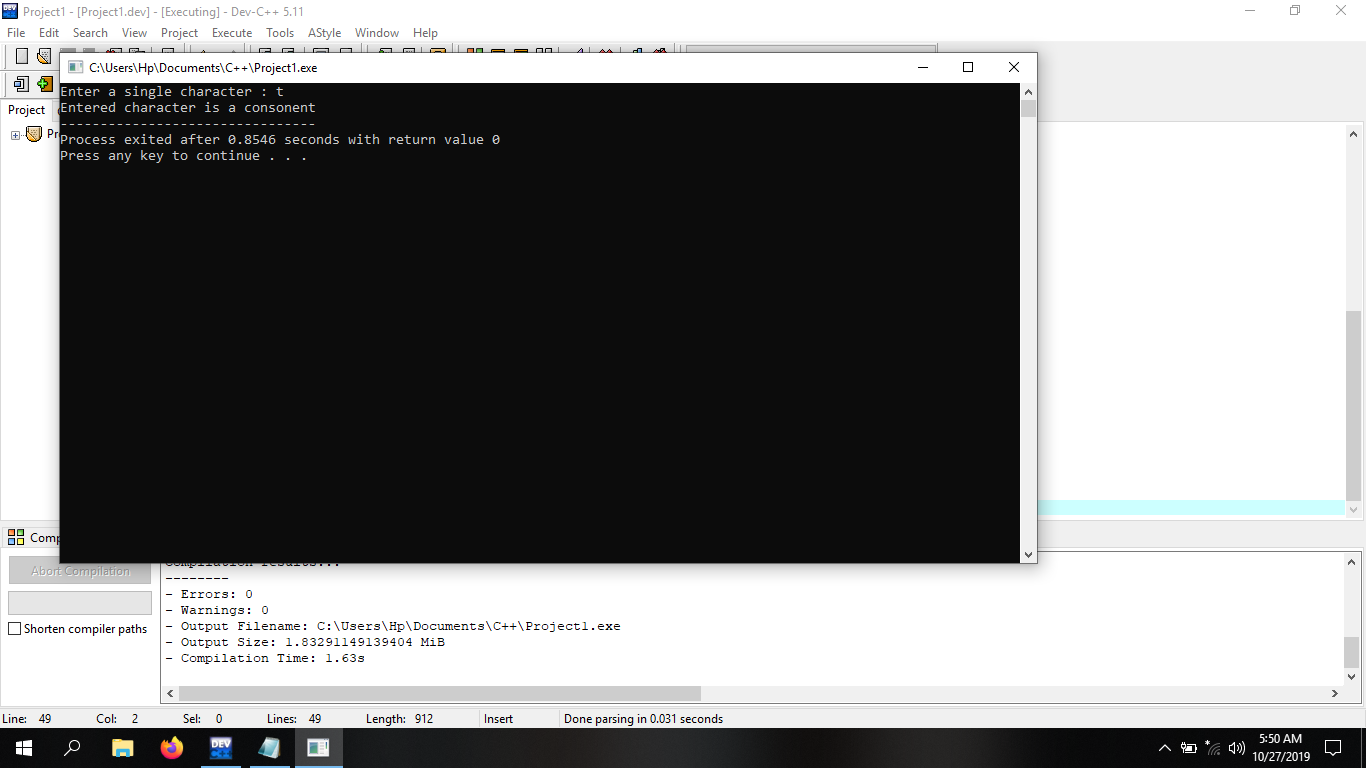
default:

cout<<"Entered character is a consonent";

}

return 0;

}



Question # 5:

Check whether the entered digit is even or odd:

PROGRAM BY USING TERNARY OPT:

#include <iostream>

using namespace std;

int main()

{

int a;

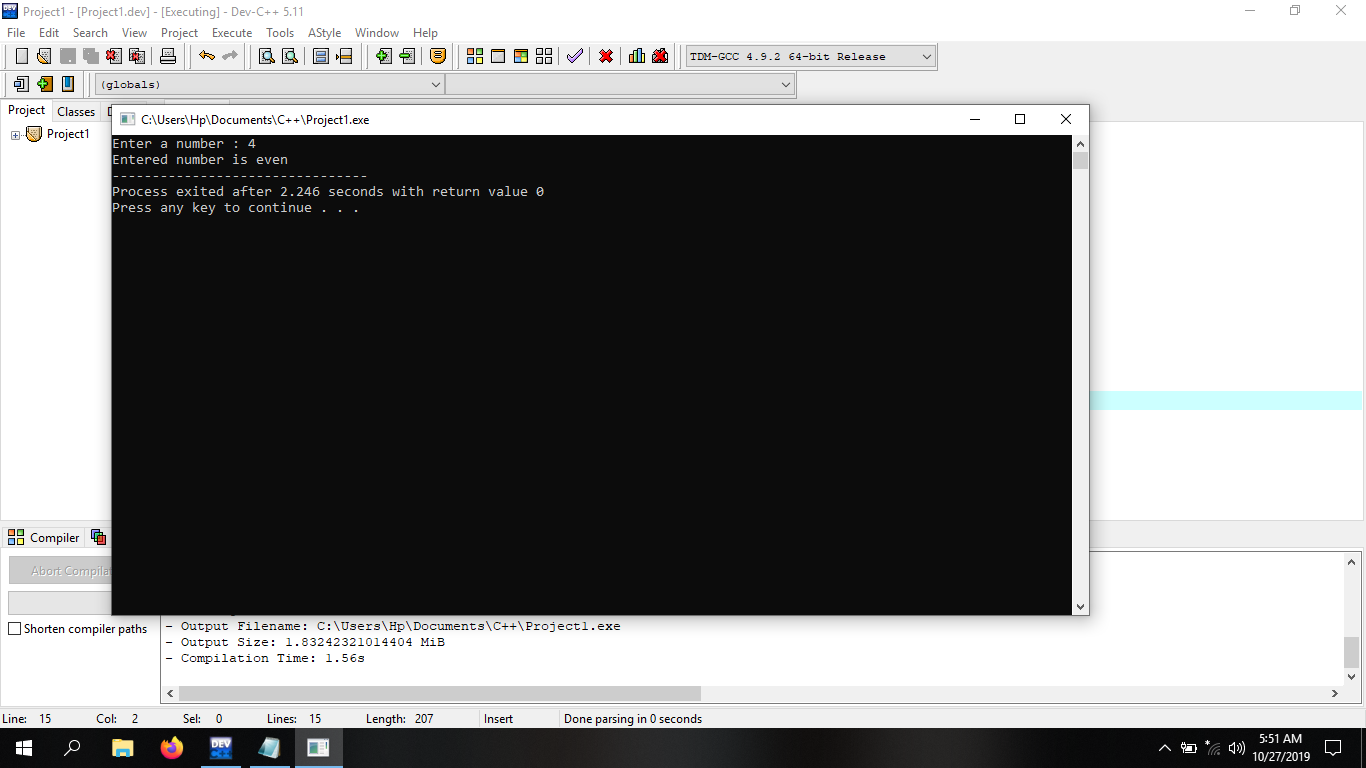
cout<<"Enter a number : ";

cin>>a;

(a%2==0?cout<<"Entered number is even":cout<<"Entered number is odd");

return 0;

}



PROGRAM BY USING SWITCH:

#include <iostream>

using namespace std;

int main()

{

int a,b,c;

cout<<"Enter a number : ";

cin>>a;

cout<<"Press 1 to start the checking ";

cin>>b;

switch(b)

{

case 1:

if(a%2==0)

{

cout<<endl<<"Entered number is even ";

}

else

cout<<endl<<"Entered number is odd";

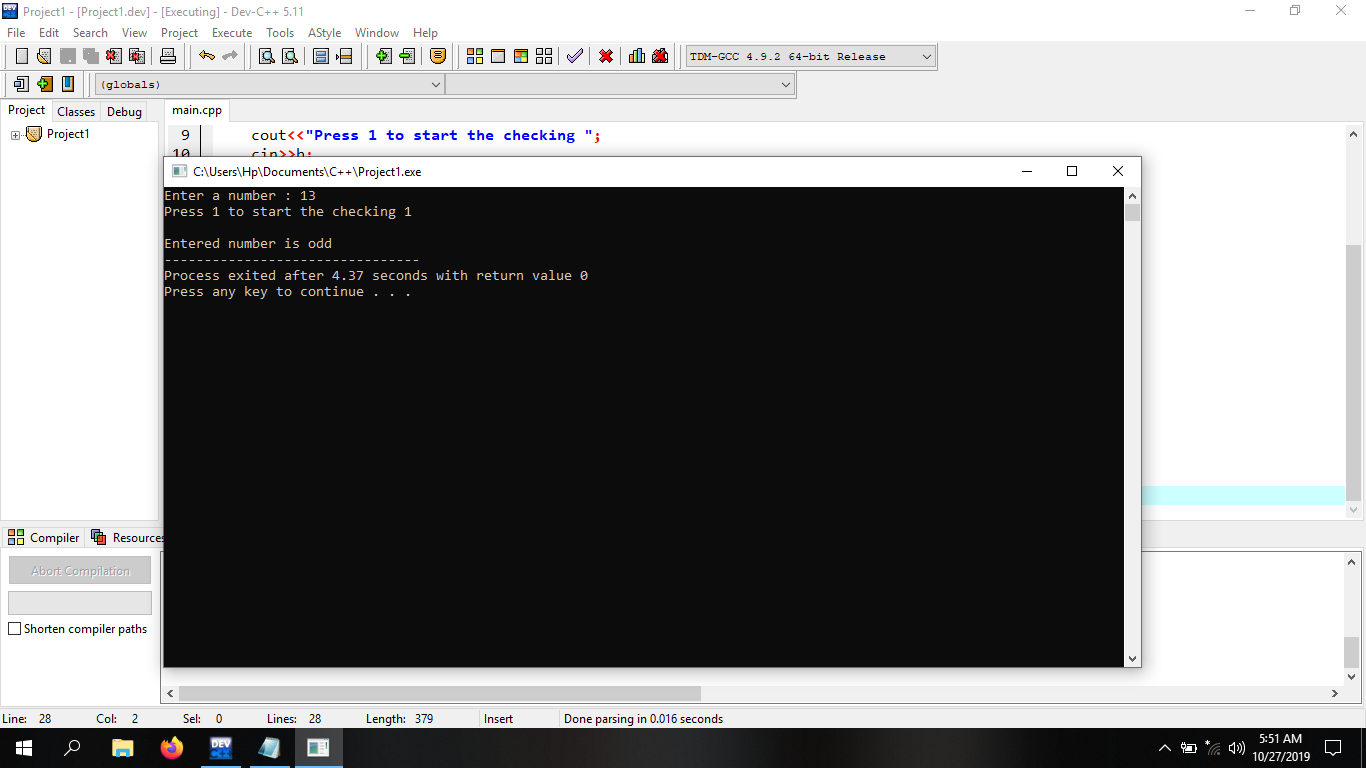
default:

cout<<" ";

}

return 0;

}



Question # 6:

Find greatest number using ternary opt:

PROGRAM:

#include <iostream>

using namespace std;

int main()

{

int a,b,c;

cout<<"Enter the 1st number : ";

cin>>a;

cout<<"Enter the 2nd number : ";

cin>>b;

cout<<"Enter the 3rd number : ";

cin>>c;

cout<<endl;

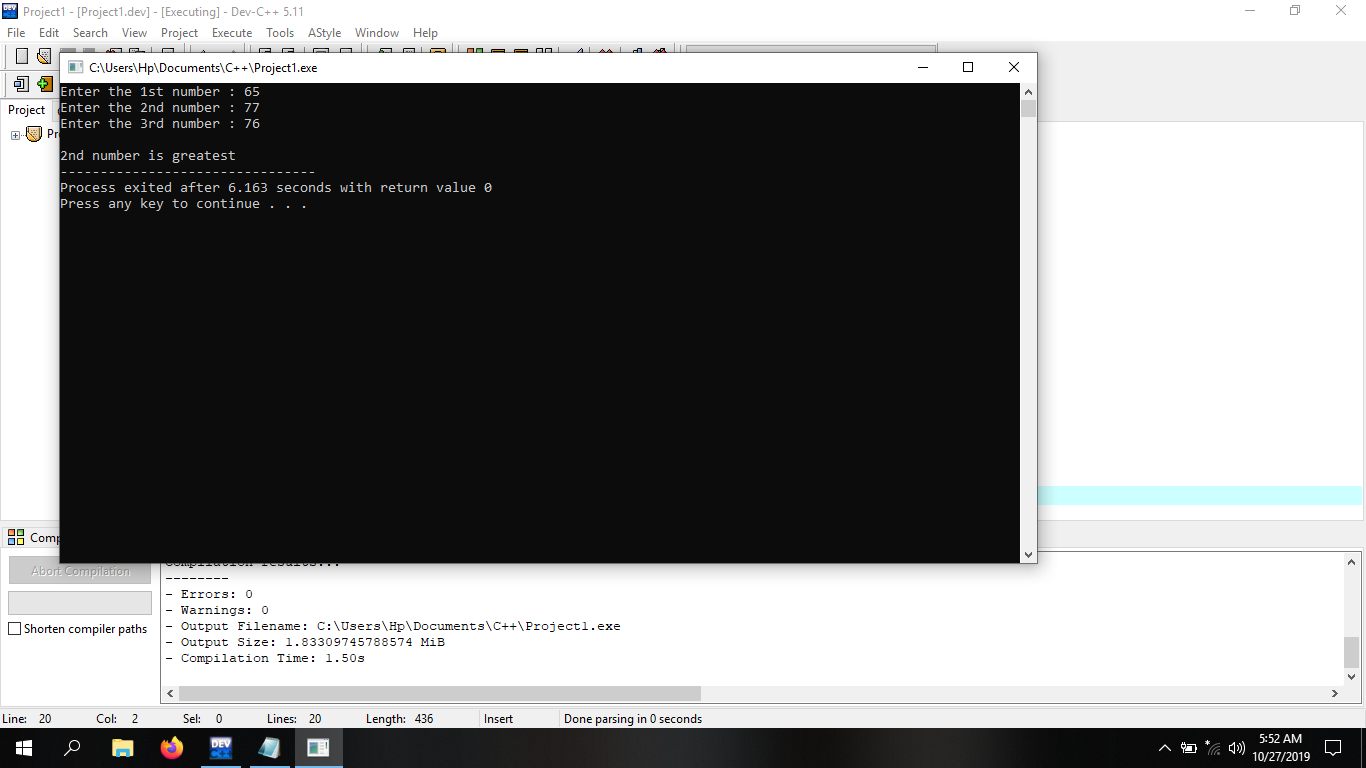
(a>b?(a>c?cout<<"1st number is greatest":cout<<""):cout<<"");

(b>a?(b>c?cout<<"2nd number is greatest":cout<<""):cout<<"");

(c>a?(c>b?cout<<"3rd number is greatest":cout<<""):cout<<"");

return 0;

}



QUESTION # 7:

Show courses and their fields:

PROGRAM:

#include <iostream>

#include <iomanip>

using namespace std;

int main()

{

int a,b,c;

cout<<"Available Degrees are : BS(CS),BS(SE),BS(EE),BBA "<<endl;

cout<<endl<<"Press 1 for Bachlors in Computer Sciences"<<endl;

cout<<"Press 2 for Bachlors in Software Engineering"<<endl;

cout<<"Press 3 for Bachlors in Electrical Engineering"<<endl;

cout<<"Press 4 for Bachlors in Business and Administration"<<endl;

cout<<endl<<"Option Chosen = ";

cin>>a;

cout<<endl<<setw(60)<<setfill('\*')<<" "<<endl;

switch(a)

{

case 1:

cout<<"Press 1 for Computer Sciences Courses"<<endl;

cout<<"Press 2 for Mathematical Courses"<<endl;

cout<<"Press 3 for Side cources(non-imp)"<<endl;

cout<<endl<<"Option Chosen = ";

cin>> b;

cout<<endl<<setw(60)<<setfill('\*')<<" "<<endl;

switch(b)

{

case 1:

cout<<"Programming Fundamentals"<<endl;

cout<<"Object Oriental Language"<<endl;

cout<<"Data Structure"<<endl;

cout<<"Arificial Intelligence"<<endl;

break;

case 2:

cout<<"Linear Algebra"<<endl;

cout<<"Calclus 1/2"<<endl;

cout<<"Analytical Geomatry"<<endl;

cout<<"Probability and Combinations"<<endl;

break;

case 3:

cout<<"Pakistan Studies"<<endl;

cout<<"Islamiyat / Ethics"<<endl;

cout<<"Applied Physics"<<endl;

cout<<"Information to Comm. Technologies"<<endl;

cout<<"English Grammer and Composition"<<endl;

break;

default:

cout<<"Invalid Entry"<<endl;

}

break;

case 2:

cout<<"Press 1 for Software Engineering Courses"<<endl;

cout<<"Press 2 for Mathematical Courses"<<endl;

cout<<"Press 3 for Side cources(non-imp)"<<endl;

cout<<endl<<"Option Chosen = ";

cin>>b;

cout<<endl<<setw(60)<<setfill('\*')<<" "<<endl;

switch(b)

{

case 1:

cout<<"Programming Fundamentals"<<endl;

cout<<"Object Oriental Language"<<endl;

cout<<"Data Base Managment System"<<endl;

cout<<"Object Oriented Analysis & Statistics"<<endl;

break;

case 2:

cout<<"Linear Algebra"<<endl;

cout<<"Calclus 1/2"<<endl;

cout<<"Analytical Geomatry"<<endl;

cout<<"Probability and Combinations"<<endl;

break;

case 3:

cout<<"Pakistan Studies"<<endl;

cout<<"Islamiyat / Ethics"<<endl;

cout<<"Applied Physics"<<endl;

cout<<"Information to Comm. Technologies"<<endl;

cout<<"English Grammer and Composition"<<endl;

break;

default:

cout<<"Invalid Entry"<<endl;

}

break;

case 3:

cout<<"Press 1 for Electrical Engineering Courses"<<endl;

cout<<"Press 2 for Mathematical Courses"<<endl;

cout<<"Press 3 for Side cources(non-imp)"<<endl;

cout<<endl<<"Option Chosen = ";

cin>> b;

cout<<endl<<setw(60)<<setfill('\*')<<" "<<endl;

switch(b)

{

case 1:

cout<<"Programming Fundamentals"<<endl;

cout<<"Engineering Drawing"<<endl;

cout<<"Electronic Devices and Circuits"<<endl;

cout<<"Signals and Systems"<<endl;

break;

case 2:

cout<<"Linear Algebra"<<endl;

cout<<"Applied Calculas"<<endl;

cout<<"Multi-Variable Calculas"<<endl;

cout<<"Complex Variables and Transforms"<<endl;

break;

case 3:

cout<<"Pakistan Studies"<<endl;

cout<<"Applied Physics"<<endl;

cout<<"Islamiyat / Ethics"<<endl;

cout<<"Physics for Engineers"<<endl;

cout<<"English Grammer and Composition"<<endl;

break;

default:

cout<<"Invalid Entry"<<endl;

}

break;

case 4:

cout<<"Press 1 for Computer Sciences Courses"<<endl;

cout<<"Press 2 for Mathematical Courses"<<endl;

cout<<"Press 3 for Side cources(non-imp)"<<endl;

cout<<endl<<"Option Chosen = ";

cin>> b;

cout<<endl<<setw(60)<<setfill('\*')<<" "<<endl;

switch(b)

{

case 1:

cout<<"IT in Business"<<endl;

cout<<"Financial Accounting"<<endl;

cout<<"Marketing Management"<<endl;

cout<<"Organiziational Behaviour"<<endl;

break;

case 2:

cout<<"Statistical Inference"<<endl;

cout<<"Business Finance"<<endl;

cout<<"Business Law"<<endl;

cout<<"Economy of Pakistan"<<endl;

break;

case 3:

cout<<"Pakistan Studies"<<endl;

cout<<"Islamiyat / Ethics"<<endl;

cout<<"Communication"<<endl;

cout<<"Business Elective"<<endl;

cout<<"English Grammer and Composition"<<endl;

break;

default:

cout<<"Invalid Entry,Try again"<<endl;

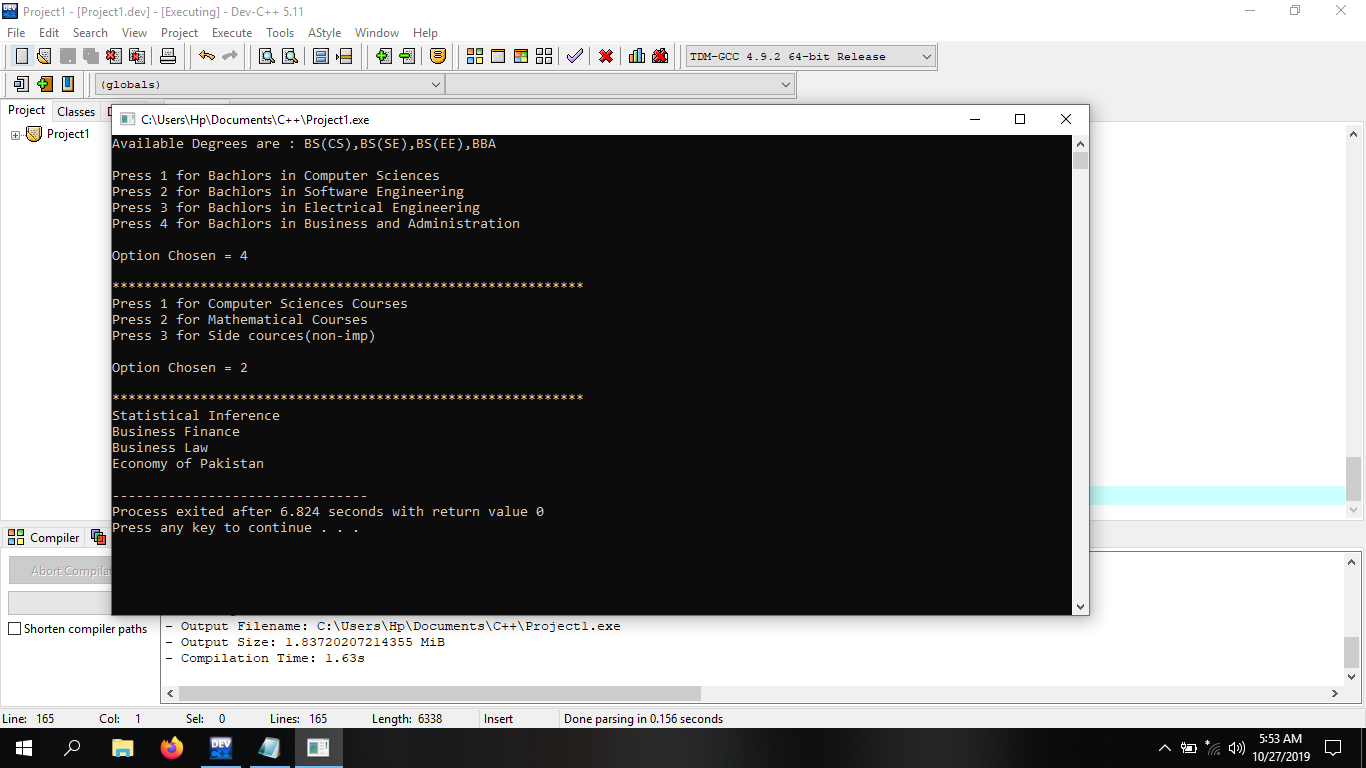
}

break;

}

return 0;

}



QUESTION # 8:

Check whether entered number is alphabet, number or special character:

PROGRAM:

#include <iostream>

using namespace std;

int main()

{

char a;

cout<<"Enter a letter : ";

cin>>a;

if(a>='a'&& a<='z' || a>='A'&&a<='Z')

{

while(1)

{

if(a>='a'&&a<='z')

{

cout<<"Entered Letter is a lower case alphabet : "<<a<<endl;

break;

}

if(a>='A'&&a<='Z')

{

cout<<"Entered Letter is a uper case alphabet : "<<a<<endl;

break;

}

}

}

else if(a>='0'&&a<='9')

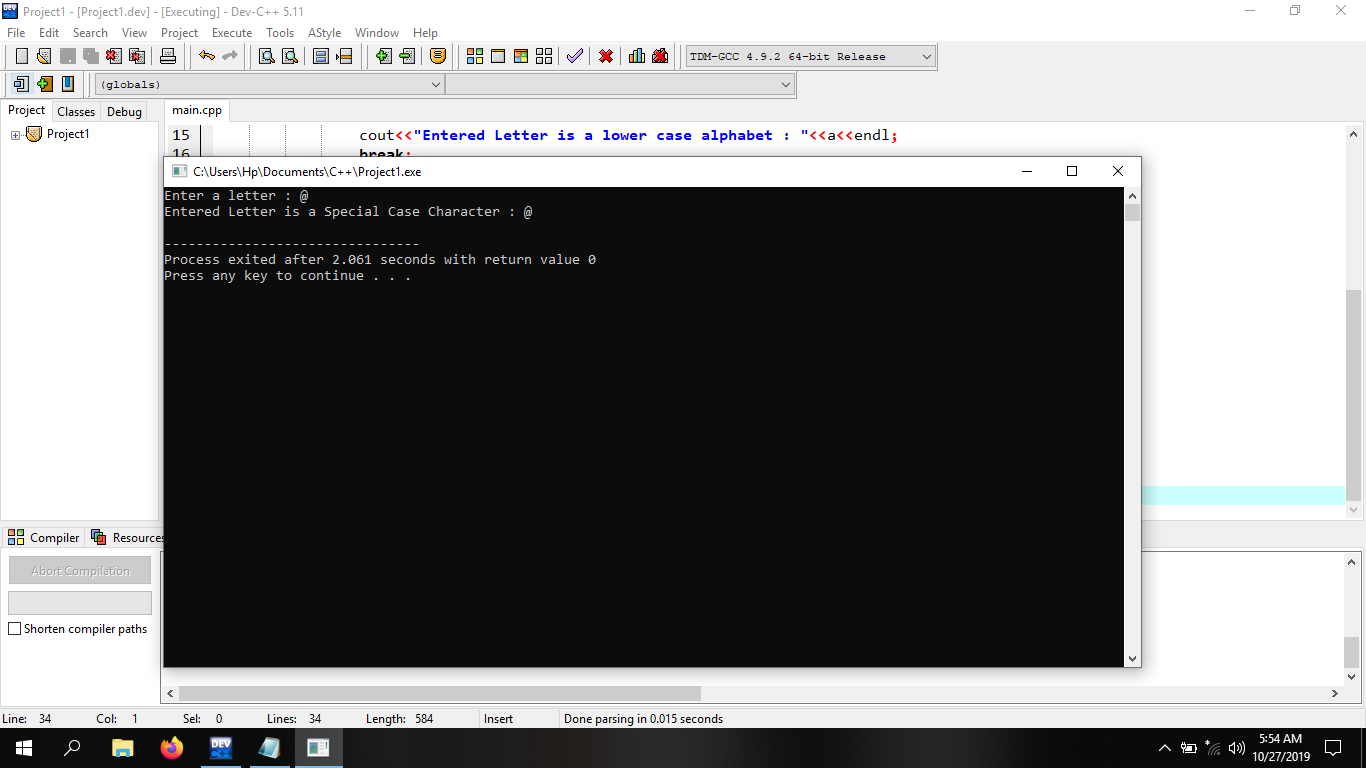
cout<<"Entered Letter is a digit : "<<a<<endl;

else

cout<<"Entered Letter is a Special Case Character : "<<a<<endl;

return 0;

}



QUESTION # 9:

Show grades and percentage obtained by student:

PROGRAM:

#include <iostream>

using namespace std;

int main()

{

float m,tm,pa;

cout<<"Enter the obtained marks of the student : ";

cin>>m;

cout<<endl<<"Enter the total marks of the cource : ";

cin>>tm;

pa=m/tm\*100;

if(pa>=90 && pa<=100)

cout<<endl<<"A grade is alloted to the student "<<endl<<"Achieved Percentage = "<<pa<<endl<<"Achieved GPA = 4.0";

else if(pa>=80 && pa<90)

cout<<endl<<"B grade is alloted to the student "<<endl<<"Achieved Percentage = "<<pa<<endl<<"Achieved GPA = 3.0";

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

cout<<endl<<"C grade is alloted to the student "<<endl<<"Achieved Percentage = "<<pa<<endl<<"Achieved GPA = 2.0";

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

cout<<endl<<"D grade is alloted to the student "<<endl<<"Achieved Percentage = "<<pa<<endl<<"Achieved GPA = 1.0";

else if(pa<60)

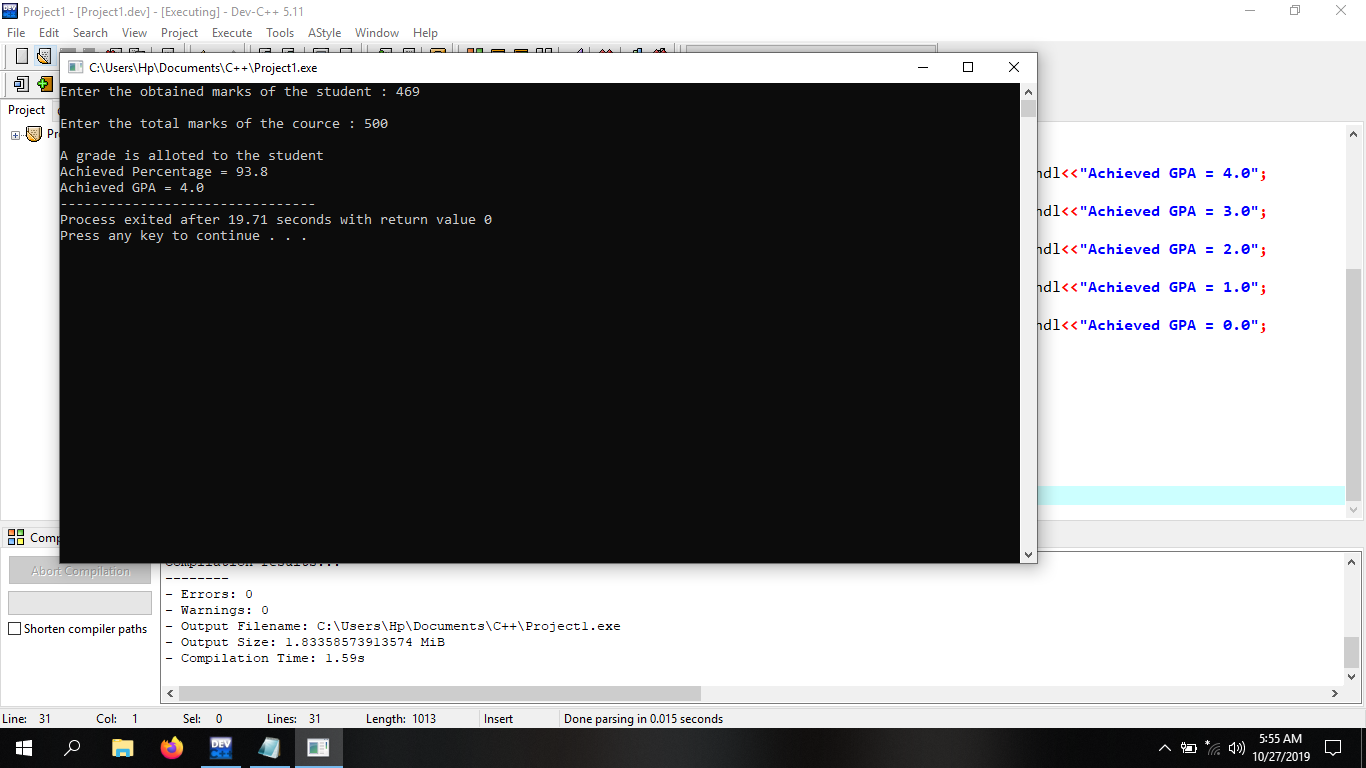
cout<<endl<<"F grade is alloted to the student "<<endl<<"Achieved Percentage = "<<pa<<endl<<"Achieved GPA = 0.0";

else

cout<<endl<<"Invalid Entries, please try again";

return 0;

}



Question # 10

Hollow right angle triangle:

PROGRAM:

#include <iostream>

using namespace std;

int main()

{

int a=1,b=1,c=1,i=1;

cout<<"Enter the number of rows : ";

cin>>a;

for(i=1;i<=a;i++)

{

for(b=1;b<=i;b++)

{

if(i!=a)

{

if(b==1 || b==i)

cout<<""<<'@'<<" ";

else

cout<<" ";

}

if(i==a)

cout<<'@'<<" ";

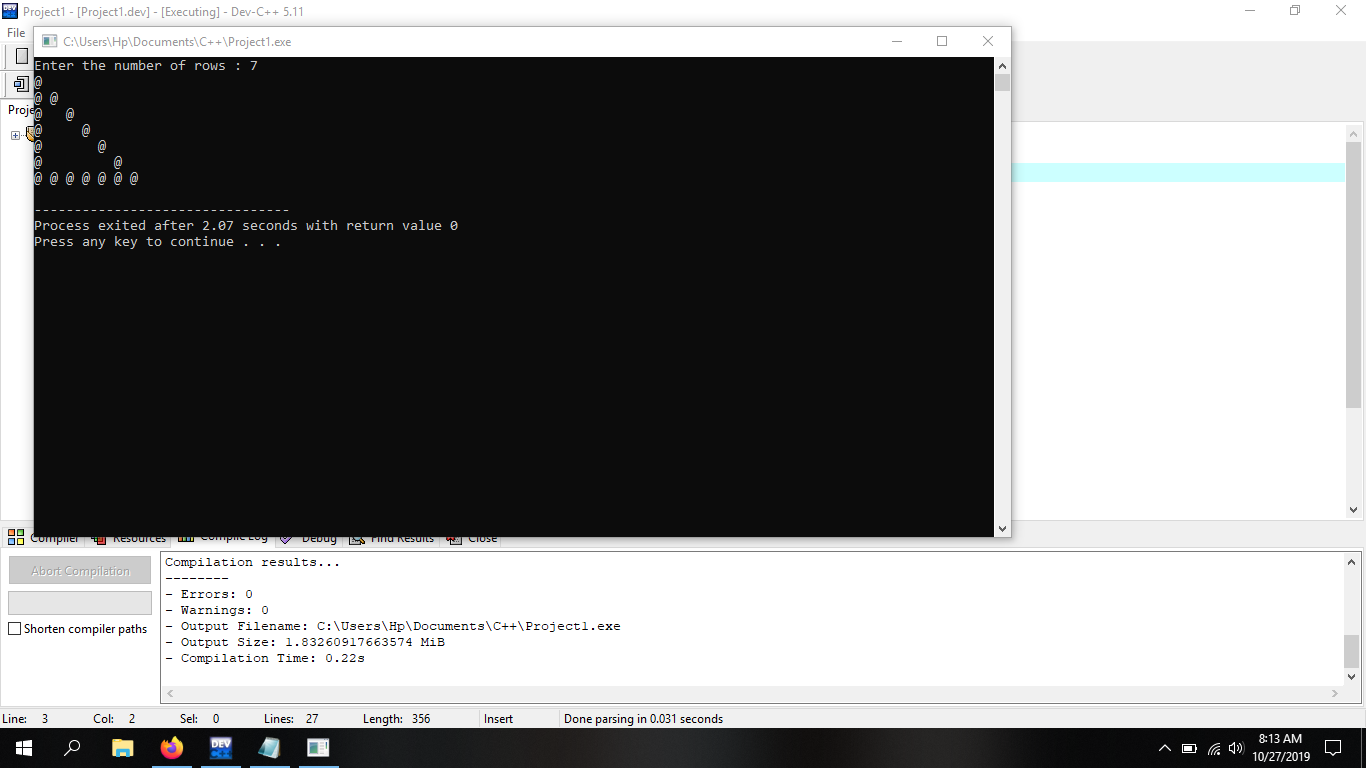
}

cout<<endl;

}

return 0;

}



Question # 11

Right angle triangle from right side:

PROGRAM:

#include <iostream>

using namespace std;

int main()

{

int a,b,c,i;

cout<<"Enter the number of rows : ";

cin>>a;

for(i=1;i<=a;i++)

{

for(b=1;b<=a-i;b++)

cout<<" ";

for(c=i;c>=1;c--)

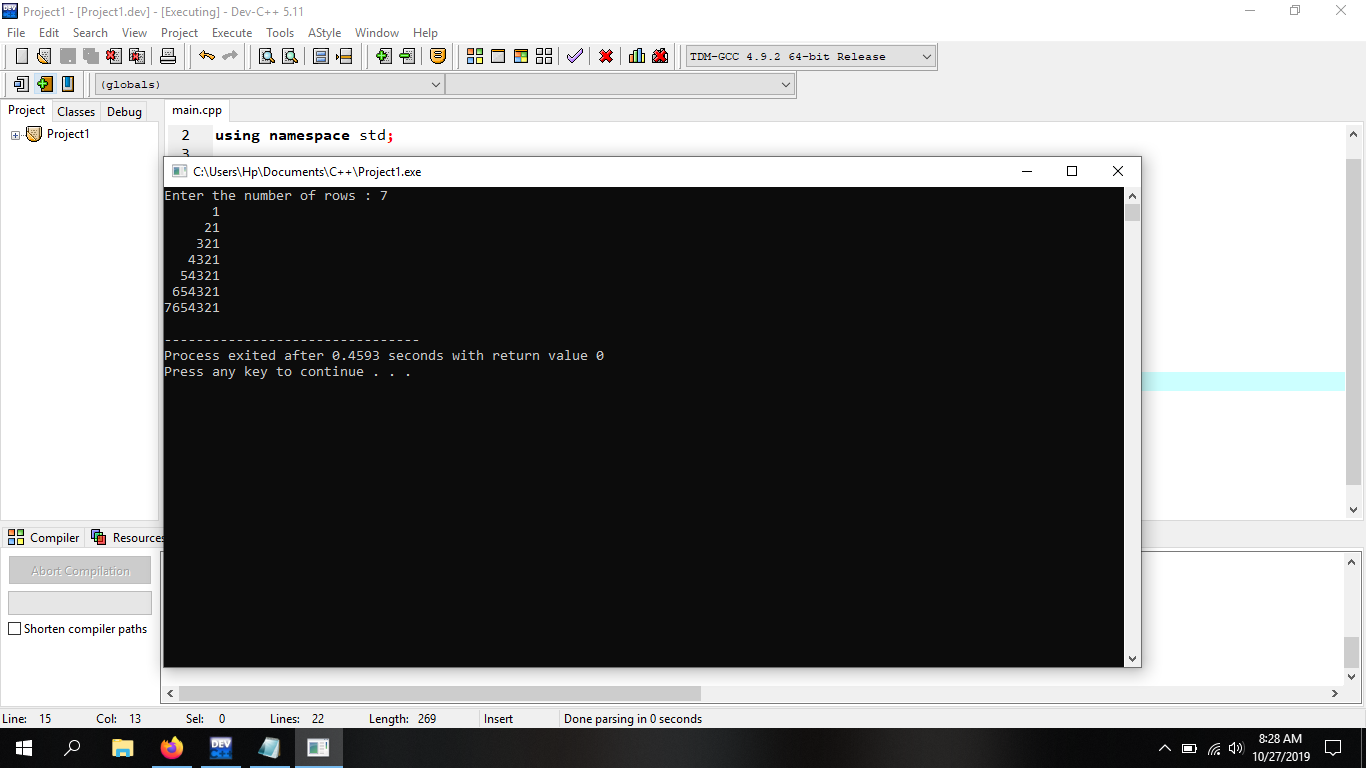
cout<<c;

cout<<endl;

}

return 0;

}



Question # 12:  
Hollow upside down right angle triangle:

PROGRAM:

#include <iostream>

using namespace std;

int main()

{

int a,b,i;

cout<<"Enter the number of rows : ";

cin>>a;

for(i=a;i<=a && i>=1;i--)

{

for(b=a;b<=a && b>=1;b--)

{

if(b==1 || b==i || i==a)

cout<<b<<" ";

else

cout<<" ";

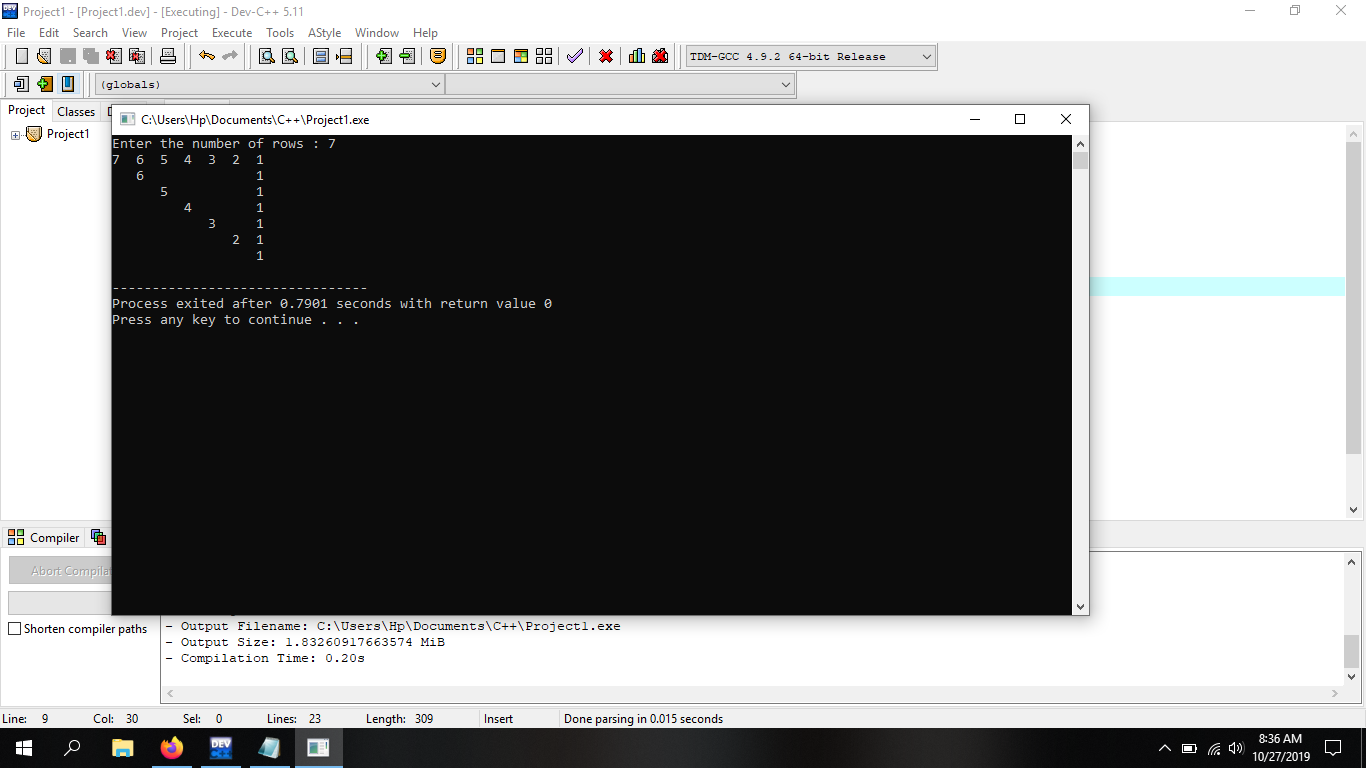
}

cout<<endl;

}

return 0;

}



Question # 13:

Hollow square:

PROGRAM:

#include <iostream>

using namespace std;

int main()

{

int a,b,i;

cout<<"Enter the number of rows : ";

cin>>a;

for(i=1;i<=a;i++)

{

for(b=1;b<=a;b++)

{

if(i==1 || i==a)

cout<<" "<<'@';

else if(b==1 || b==a)

cout<<" "<<'@';

else

cout<<" ";

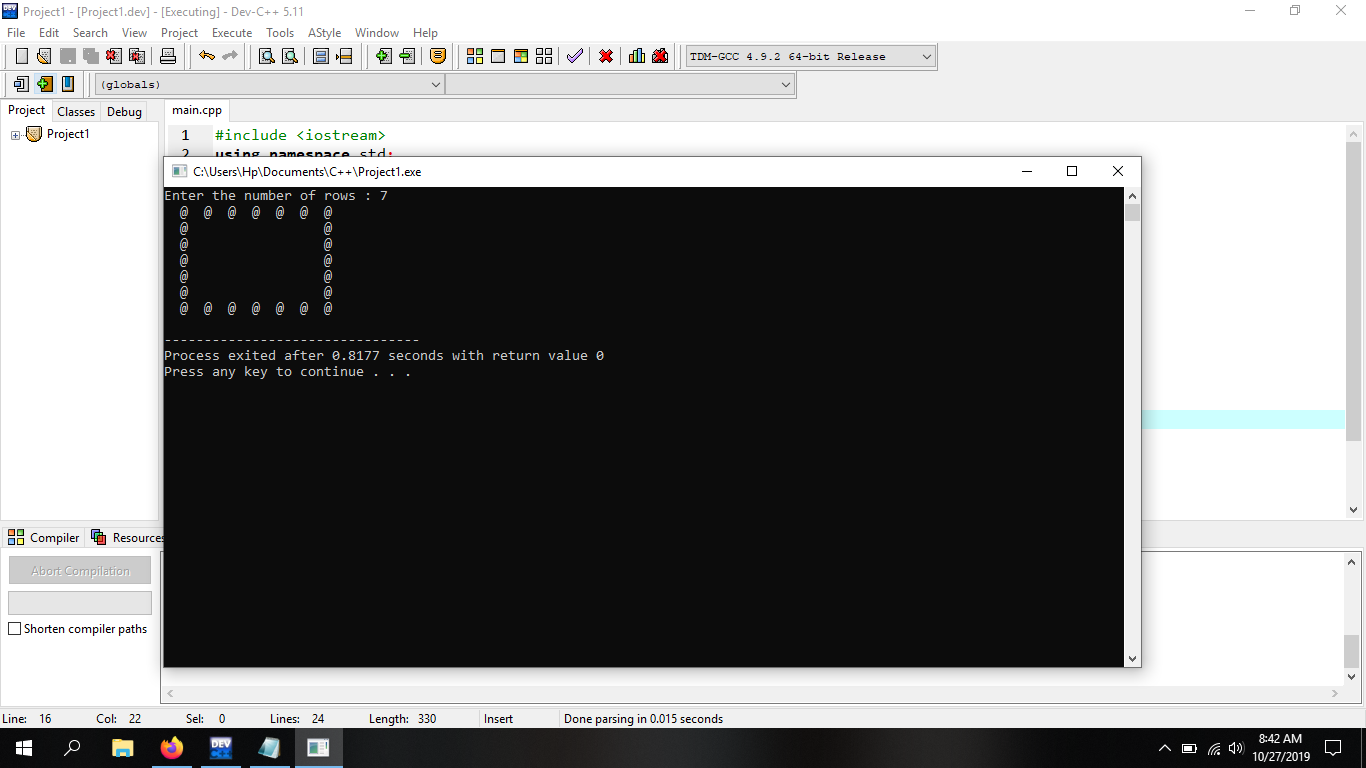
}

cout<<endl;

}

return 0;

}



Question # 15

Numerical Pyramid:

PROGRAM:

#include <iostream>

using namespace std;

int main()

{

int a,b,c,d,i;

cout<<"Enter the number of rows : ";

cin>>a;

for(i=1;i<=a;i++)

{

for(b=i;b<=a;b++)

cout<<" ";

for(c=i;c>0 && c<=a;c--)

cout<<c<<" ";

for(d=2;d<=i;d++)

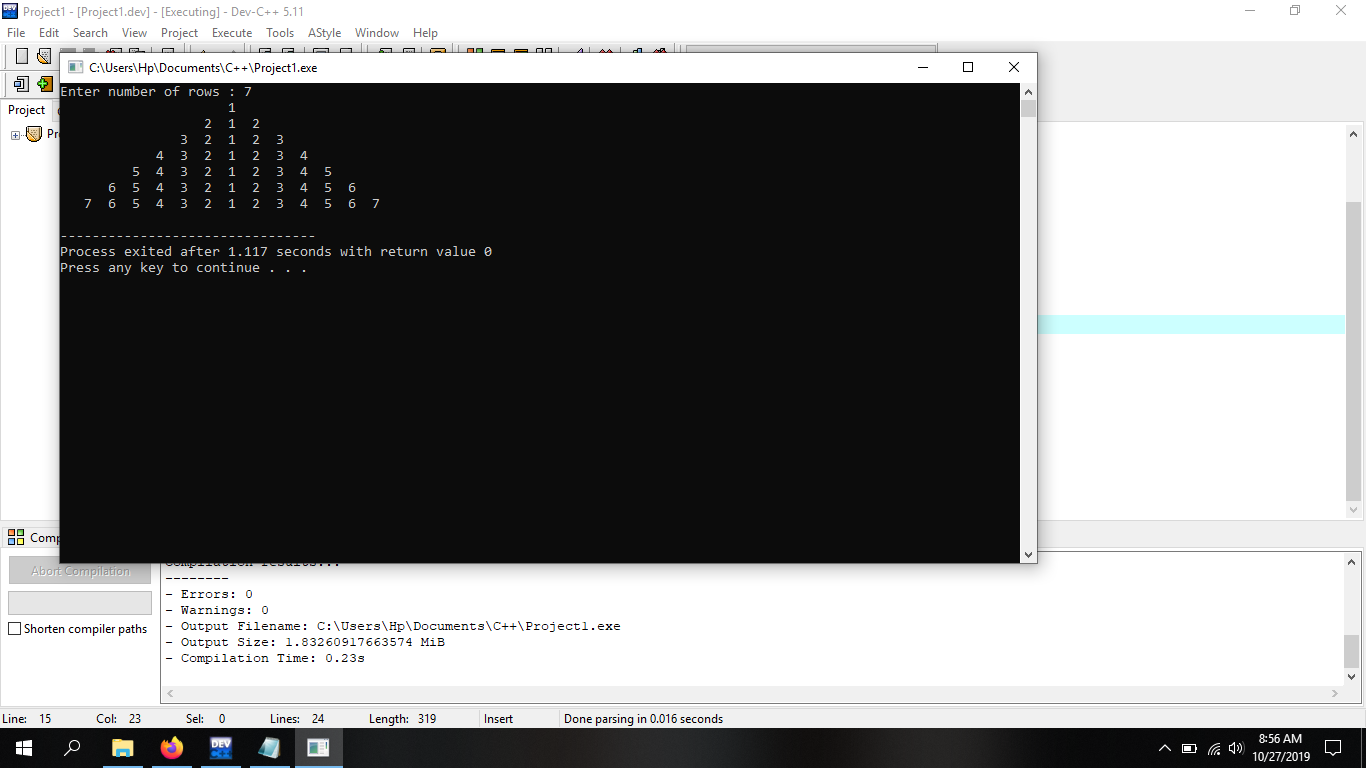
cout<<d<<" ";

cout<<endl;

}

return 0;

}



Question # 16

Hollow diamond

PROGRAM:

#include <iostream>

using namespace std;

int main()

{

int a,b,i;

cout<<"Enter the number of rows : ";

cin>>a;

for(i=1;i<=a;i++)

{

for(b=i;b<=a;b++)

cout<<"\*";

for(b=1;b<=(2\*i)-2;b++)

cout<<" ";

for(b=i;b<=a;b++)

cout<<'\*';

cout<<endl;

}

for(i=2;i<=a;i++)

{

for(b=1;b<=i;b++)

cout<<"\*";

for(b=(2\*i)-2;b<(2\*a)-2;b++)

cout<<" ";

for(b=1;b<=i;b++)

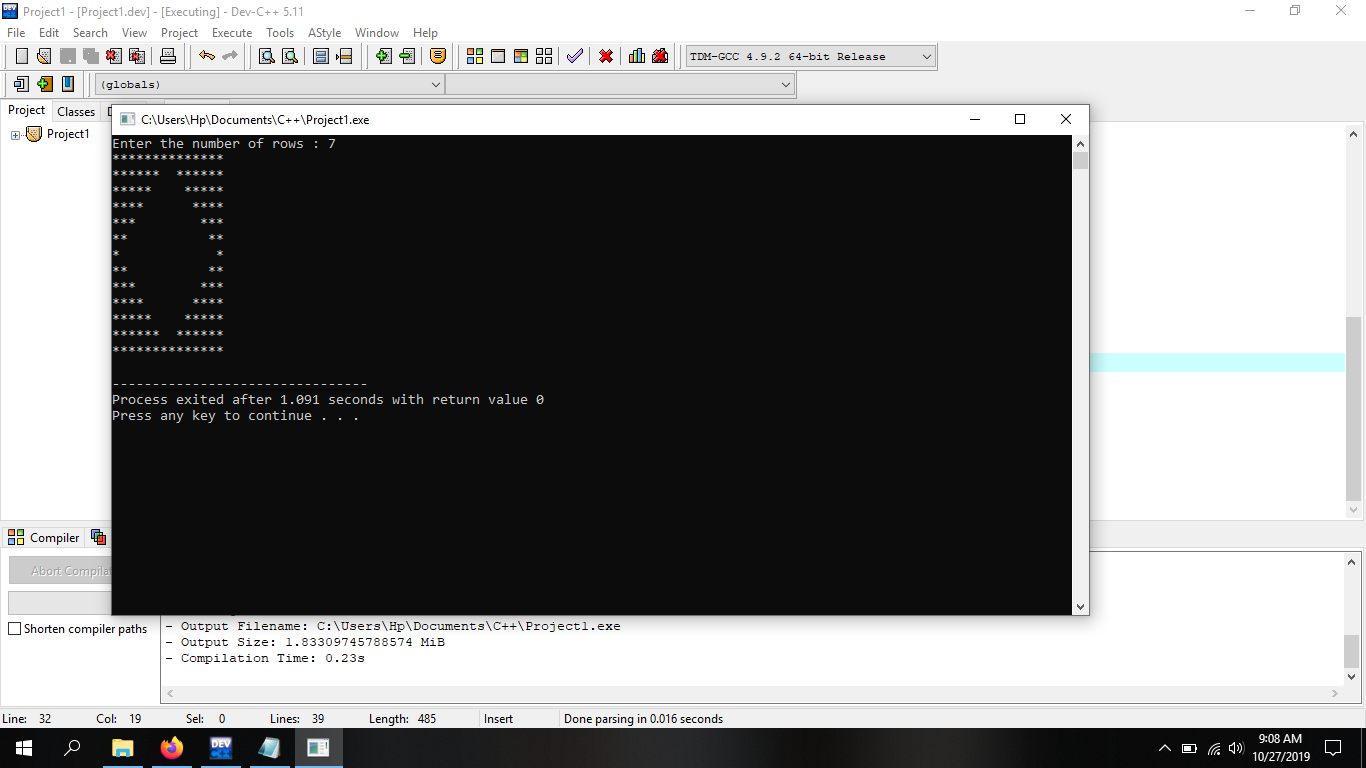
cout<<'\*';

cout<<endl;

}

return 0;

}



Question # 17

Pascal triangle

PROGRAM:

#include <iostream>

using namespace std;

int main()

{

int a,b,c,d=1,i;

cout<<"Enter the number of rows : ";

cin>>a;

for(i=0;i<a;i++)

{

for(c=1;c<=a-i;c++)

cout<<" ";

for(b=0;b<=i;b++)

{

if(b==0 || i==0)

d=1;

else

d=d\*(i-b+1)/b;

cout<<d<<" ";

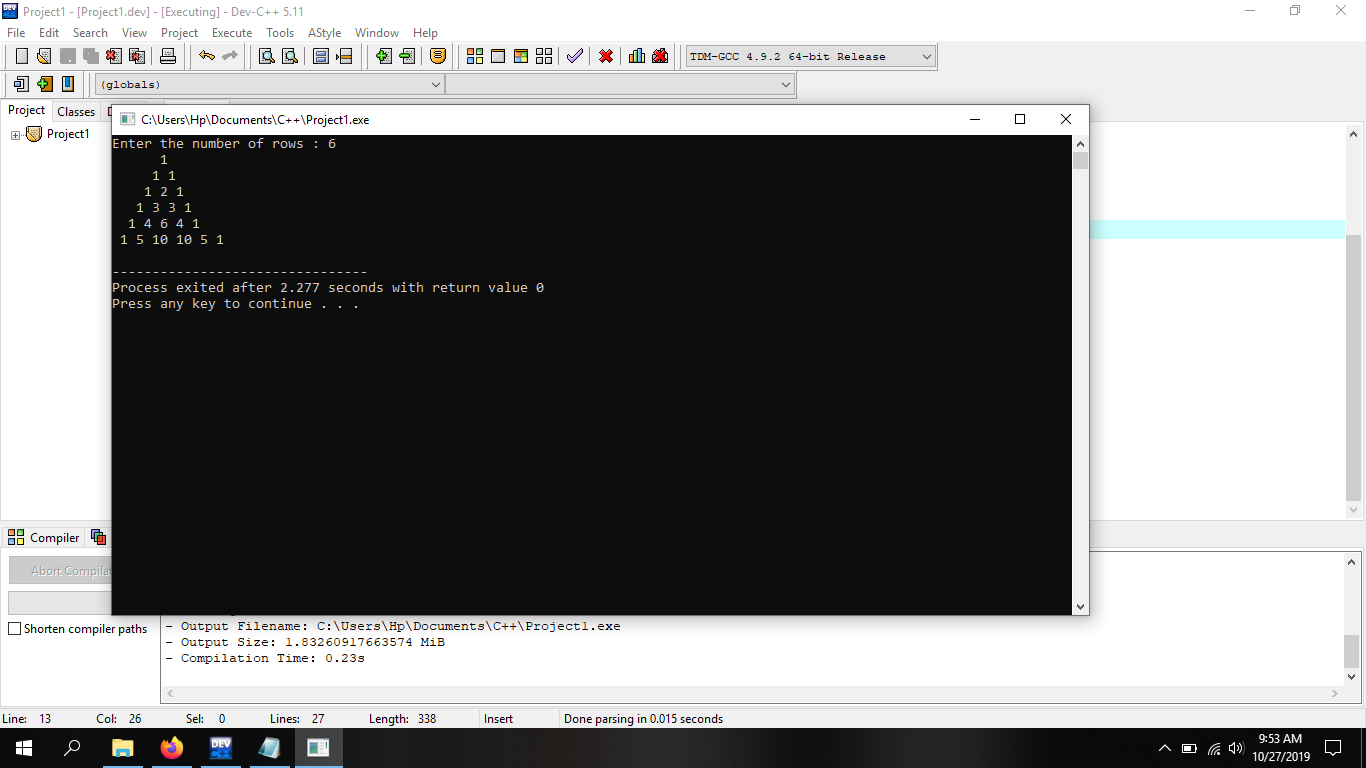
}

cout<<endl;

}

return 0;

}



Question # 18

Diamond within a boundary:

PROGRAM:

#include <iostream>

using namespace std;

int main()

{

int a,b,c,d=1,i;

cout<<"Enter the number of rows : ";

cin>>a;

for(i=1;i<=a;i++)

{

for(b=1;b<=a-i;b++)

cout<<" ";

cout<<'\*';

if(i>0)

{

for(c=3;c<=d;c++)

cout<<" ";

d=d+2;

if(c>3)

cout<<'\*';

}

cout<<endl;

}

d=d-4;

for(i=2;i<=a;i++)

{

for(b=1;b<=i-1;b++)

cout<<" ";

cout<<'\*';

for(c=2;c<=d-1;c++)

cout<<" ";

d=d-2;

if(i!=a)

cout<<'\*';

cout<<endl;

}

return 0;

}

