FUNDAMENTAL OF PROGRAMMING

LAB REPORT 2

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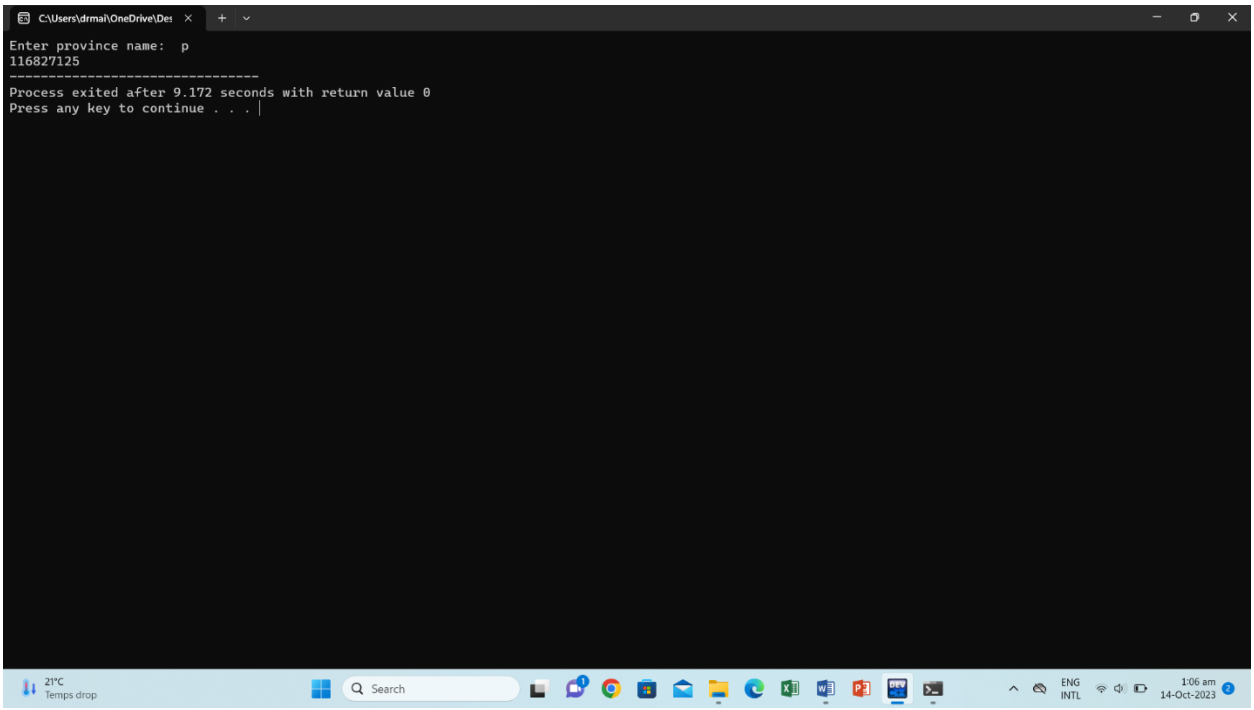
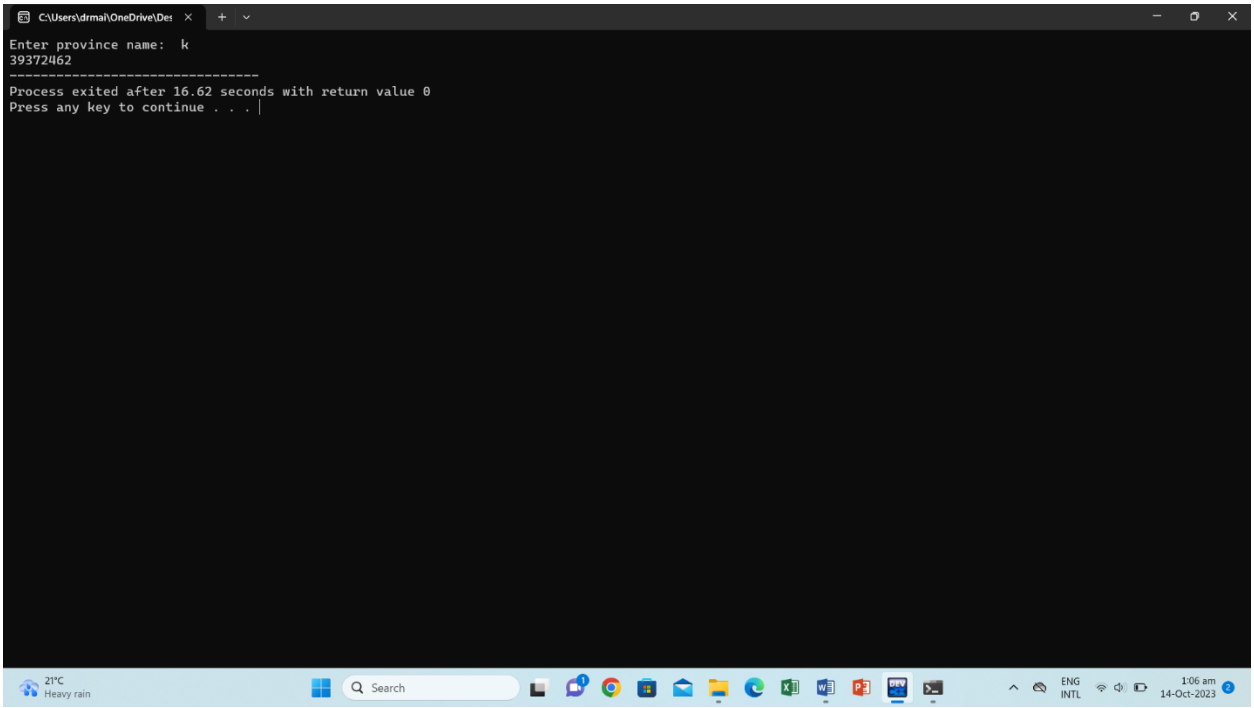
Write a C++ program to print the total number of populations in Punjab, Sindh, KPK, and Balochistan using a switch case.

INPUT:

```
#include<iostream>
using namespace std;
int main(){
int pun,sin,kpk,bal;
pun=116827125;
sin=54858515;
kpk=39372462;
bal=20094659;
char x;
cout<<"Enter province name:  ";
cin>>x;  //input first alphabet of any one province
switch(x){  //shows the population of the input province
        case 'p':   cout<<pun;
        break;
        case 's':   cout<<sin;
        break;
        case 'k':    cout<<kpk;
        break;
        case 'b':      cout<<bal;
        break;}
```

OUTPUT:


C:\Users\drmai\OneDrive\Des
Enter province name: p
116827125
Process exited after 9.172 seconds with return value 0
Press any key to continue . . .
21°C
Temps drop
Search
ENG
INTL
1:06 am
14-Oct-2023

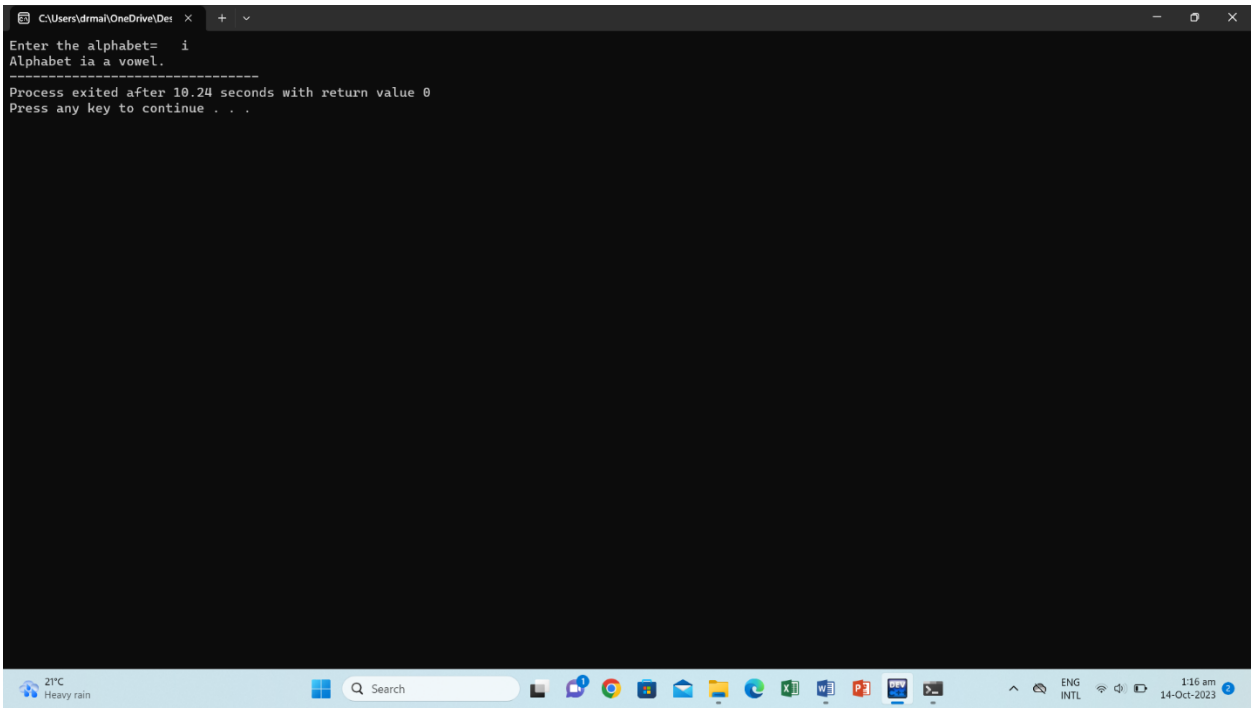

C:\Users\drmai\OneDrive\Des
Enter province name: k
39372462
Process exited after 16.62 seconds with return value 0
Press any key to continue . . .
21°C
Heavy rain
Search
ENG
INTL
1:06 am
14-Oct-2023

Write a C++ program to check whether an alphabet is a vowel or consonant using a switch case.

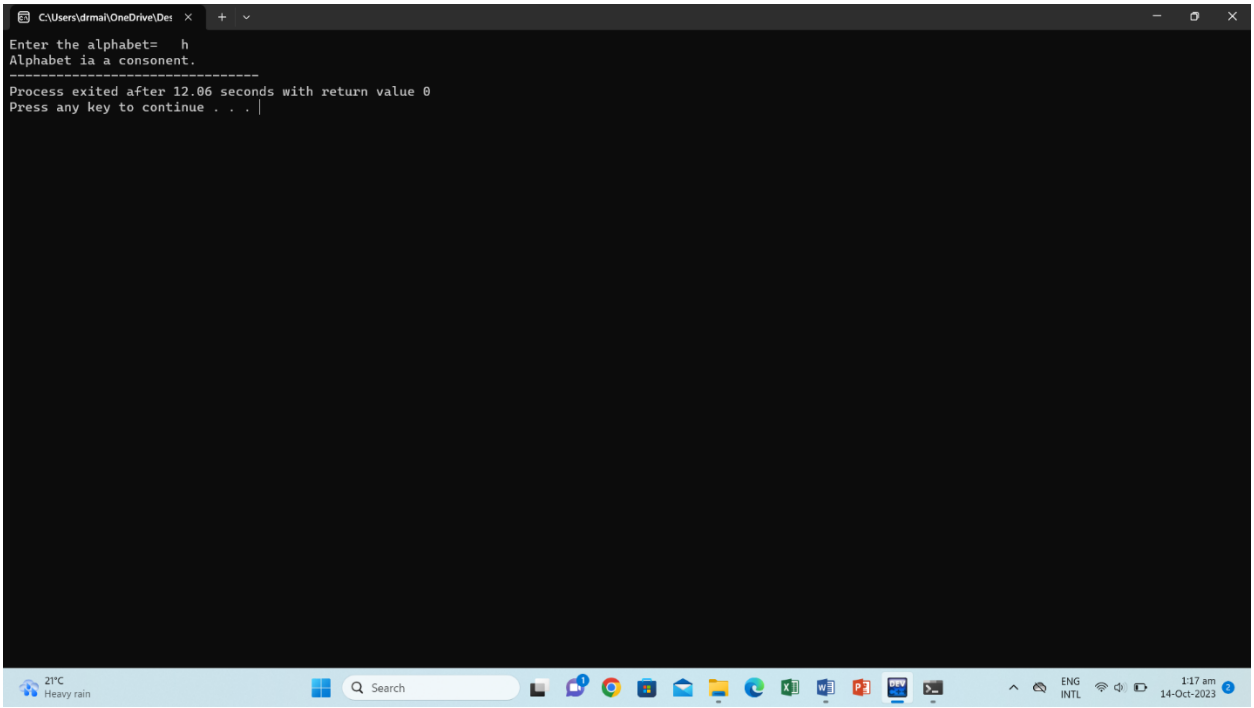
INPUT:

```
#include<iostream>
using namespace std;
int main(){
        char X;
        //input a single alphabet
        cout<<"Enter the alphabet=   ";
        cin>>X;
        //check if entered alphabet is a vowel or consonent
        switch(X){
                case 'a':   cout<<"Alphabet ia a vowel.";
                break;
                case 'e':   cout<<"Alphabet ia a vowel.";
                break;
                case 'i':   cout<<"Alphabet ia a vowel.";
                break;
                case 'o':   cout<<"Alphabet ia a vowel.";
                break;
                case 'u':   cout<<"Alphabet ia a vowel.";
                break;
                default:   cout<<"Alphabet ia a consonent.";
                break;}   }
```

OUTPUT:


C:\Users\drmai\OneDrive\Des
Enter the alphabet= i
Alphabet ia a vowel.

Process exited after 10.24 seconds with return value 0
Press any key to continue . . .
21°C
Heavy rain
Search
ENG
INTL
1:16 am
14-Oct-2023


C:\Users\drmai\OneDrive\Des
Enter the alphabet= h
Alphabet ia a consonent.

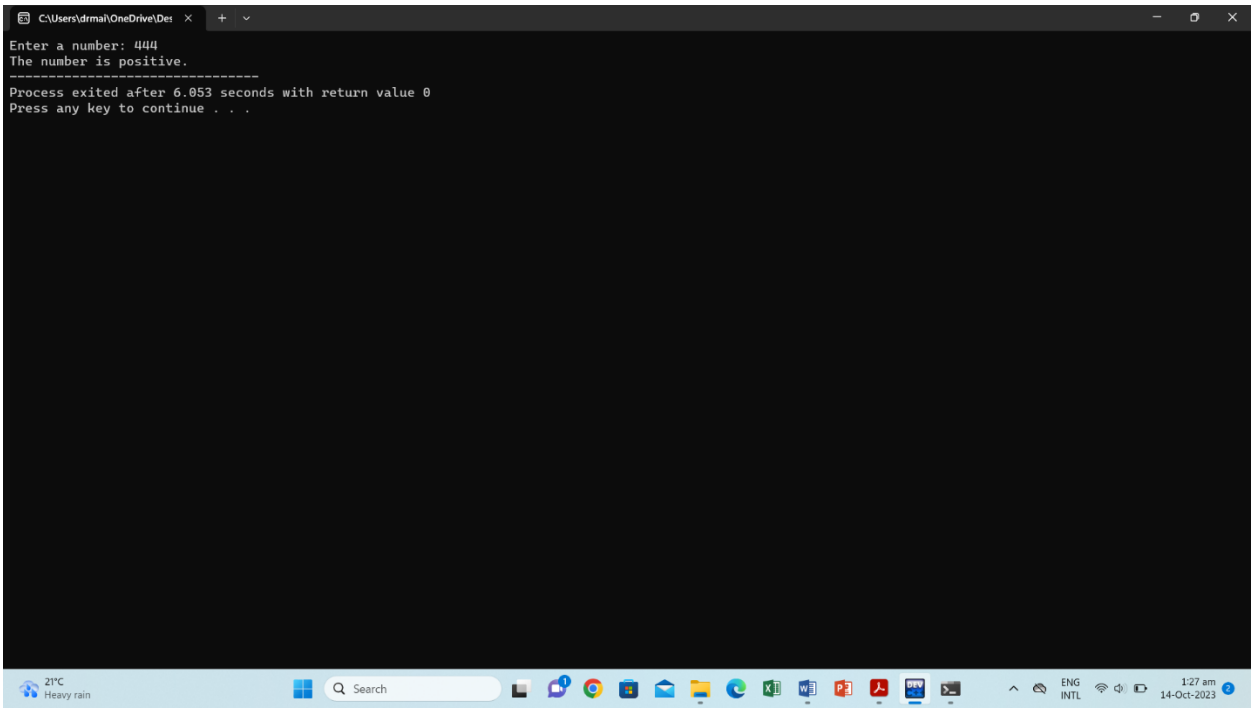
Process exited after 12.06 seconds with return value 0
Press any key to continue . . .
21°C
Heavy rain
Search
ENG
INTL
1:17 am
14-Oct-2023

Write a C++ program to check whether a number is positive, negative, or zero using a switch case.

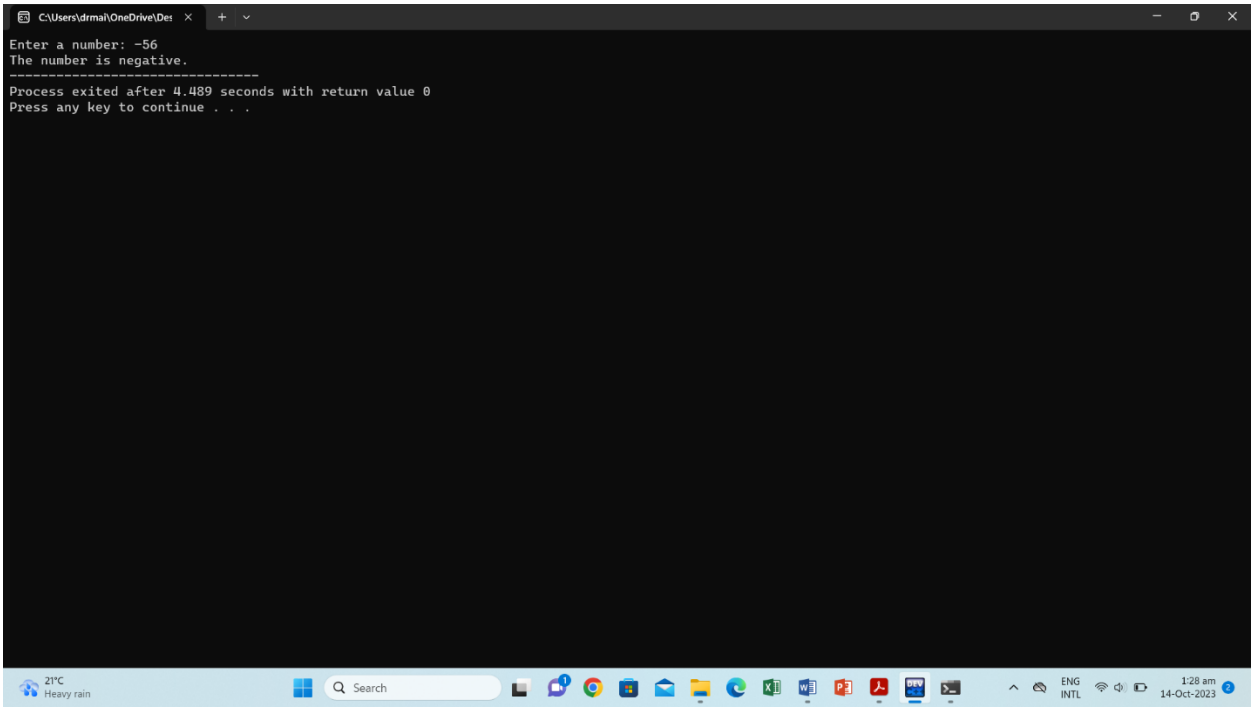
INPUT:

```
 #include <iostream>
using namespace std;
int main() {
   double number;
   // Input
   cout << "Enter a number: ";
   cin >> number;
   // Check whether the number is positive, negative, or zero
   switch (number>0) {
   case true:   cout << "The number is positive.";
   break;
   case false:
   switch (number<0) {
   case true:   cout << "The number is negative.";
   break;
   case false:cout << "The number is zero.";
   break;
   }
         break;
   }
   return 0;}
```

OUTPUT:


C:\Users\drmai\OneDrive\Des
Enter a number: 444
The number is positive.

Process exited after 6.053 seconds with return value 0
Press any key to continue . . .
21°C
Heavy rain
Search
ENG
INTL
1:27 am
14-Oct-2023


C:\Users\drmai\OneDrive\Des
Enter a number: -56
The number is negative.

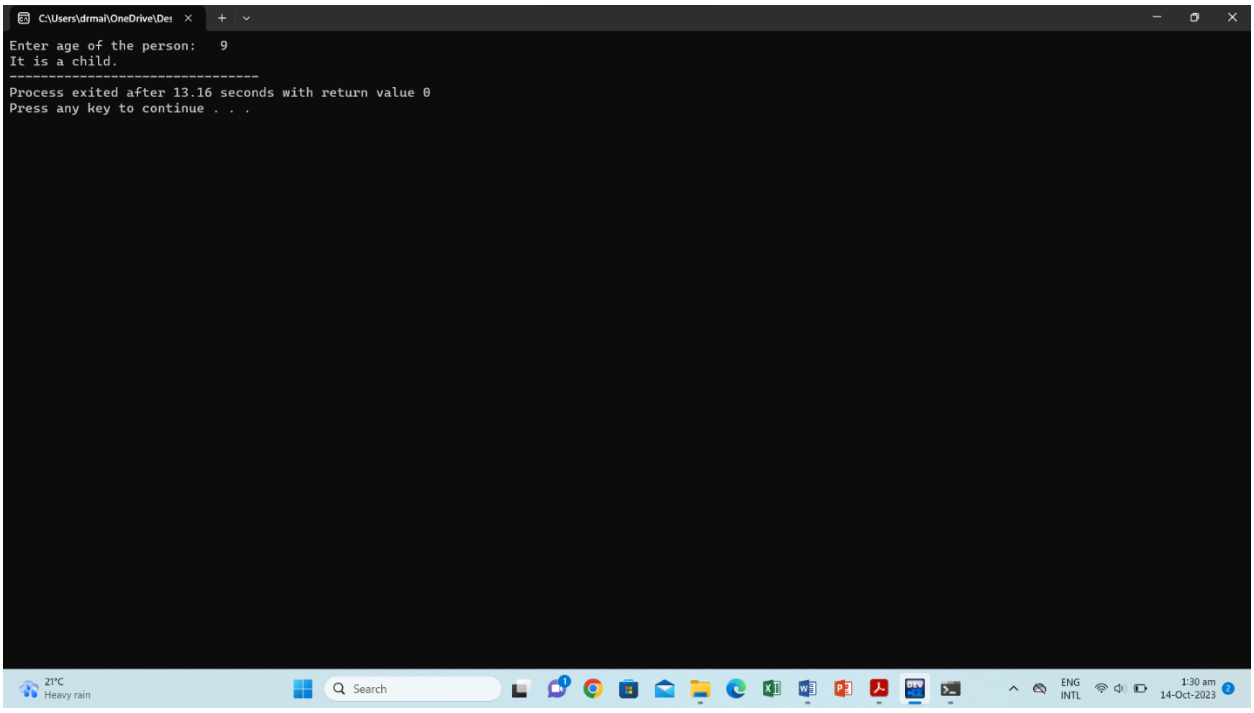
Process exited after 4.489 seconds with return value 0
Press any key to continue . . .
21°C
Heavy rain
Search
ENG
INTL
1:28 am
14-Oct-2023

Write a C++ to find out whether a person is an adult, teenager, or child using nested if-else.

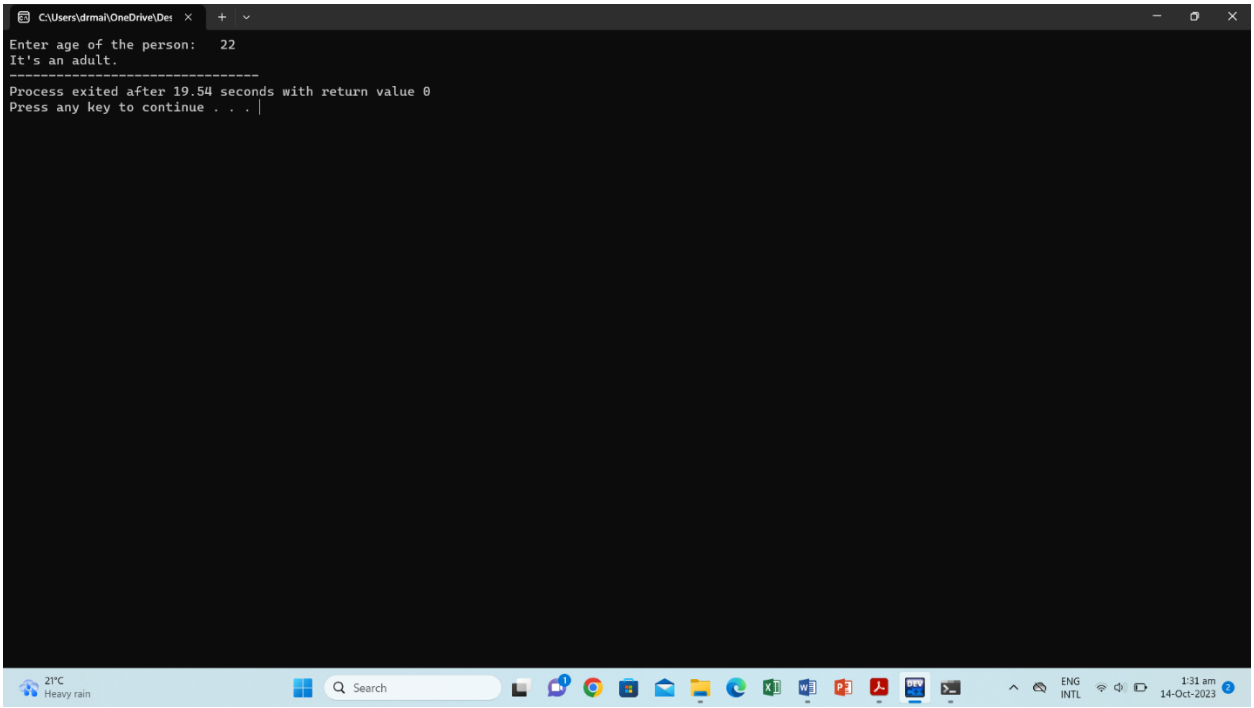
INPUT:

```
#include<iostream>
using namespace std;
int main(){
	int age;
	cout<<"Enter age of the person:   ";
	//enter age of a person
	cin>>age;
	//to check if entered age of a person is child,teenager or adult
	if(age<18){
		if(age<=12){
			cout<<"It is a child.";
		}
		else{
			cout<<"It is a teenager.";
		}
	}
	else{
		cout<<"It's an adult.";
	}
}
```

OUTPUT:


C:\Users\drmai\OneDrive\Des
Enter age of the person: 9
It is a child.

Process exited after 13.16 seconds with return value 0
Press any key to continue . . .
21°C
Heavy rain
Search
ENG
INTL
1:30 am
14-Oct-2023


C:\Users\drmai\OneDrive\Des
Enter age of the person: 22
It's an adult.

Process exited after 19.54 seconds with return value 0
Press any key to continue . . .
21°C
Heavy rain
Search
ENG
INTL
1:31 am
14-Oct-2023

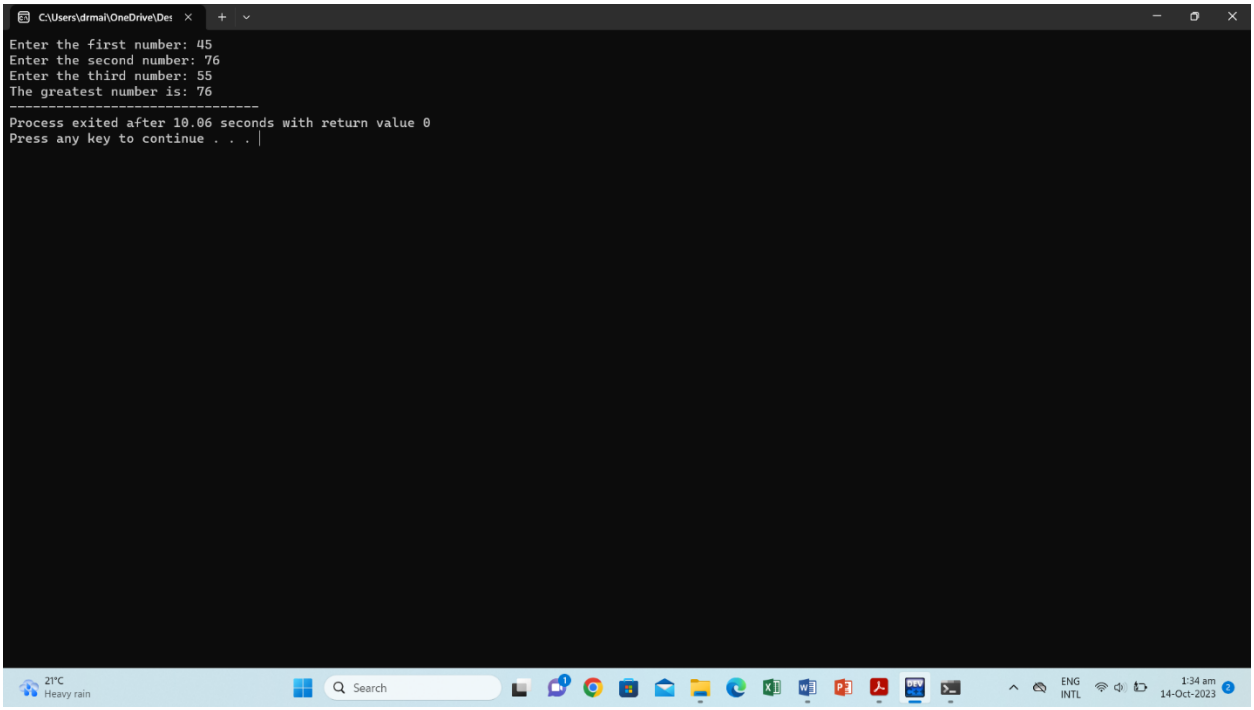
Write a C++ program that takes three number from the user and find the greatest number out of the three numbers using nested if-else statements.

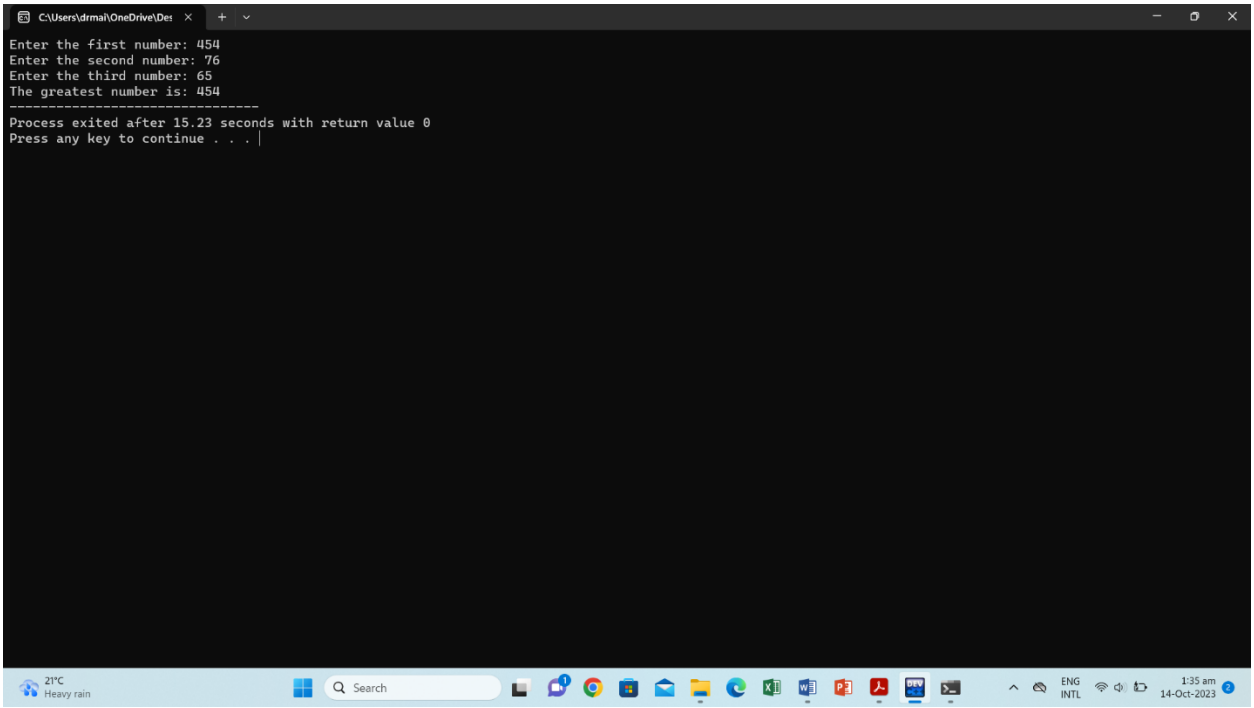
INPUT:

```
#include <iostream>
using namespace std;
int main() {
   double num1, num2, num3;
   // Input three numbers
   cout<<"Enter the first number: ";
   cin>>num1;
   cout<<"Enter the second number: ";
   cin>>num2;
   cout<<"Enter the third number: ";
   cin>>num3;
   // Compare the numbers to find the greatest
   if(num1>=num2){
      if(num1>=num3){
      cout<<"The greatest number is: "<<num1;
      }else{
         cout<<"The greatest number is: "<<num3; }
   } else{
  if(num2>=num3){
         cout<<"The greatest number is: "<<num2;
```

```
    } else{
        cout<<"The greatest number is: "<<num3; }
}return 0;}
```

OUTPUT:



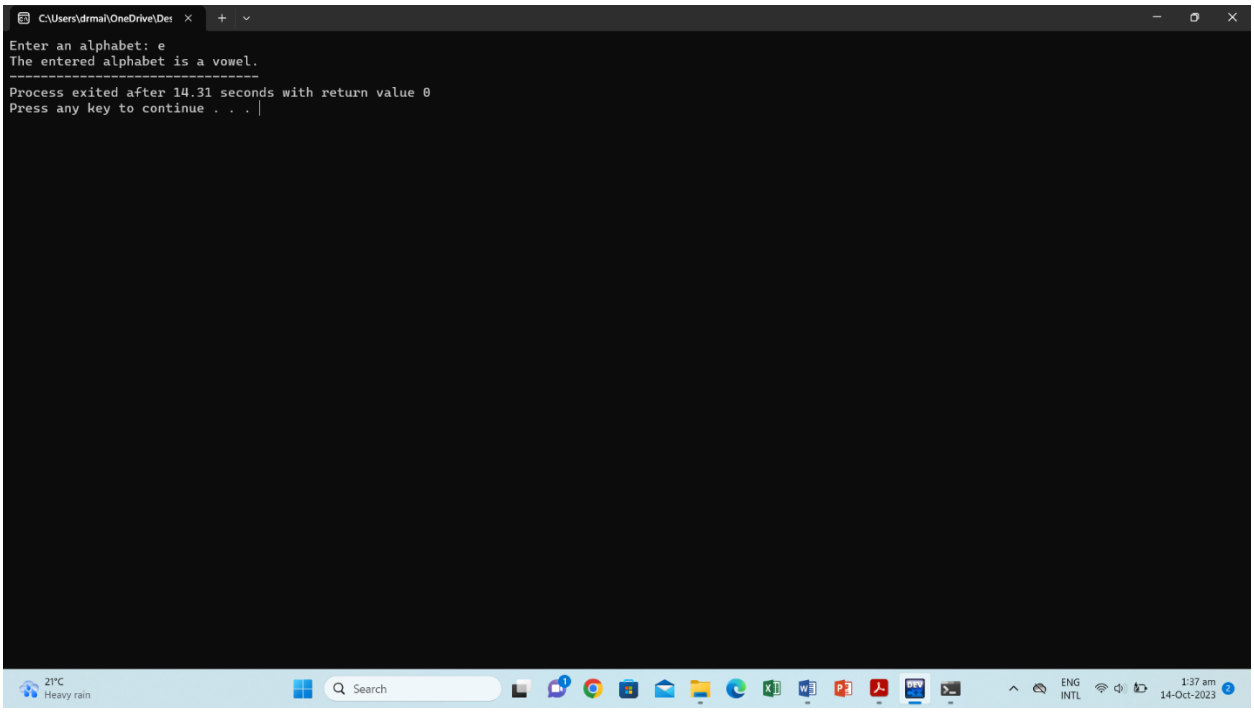


Write a C++ program to check whether the alphabet entered by the user is Vowel or Consonant using nested if-else.

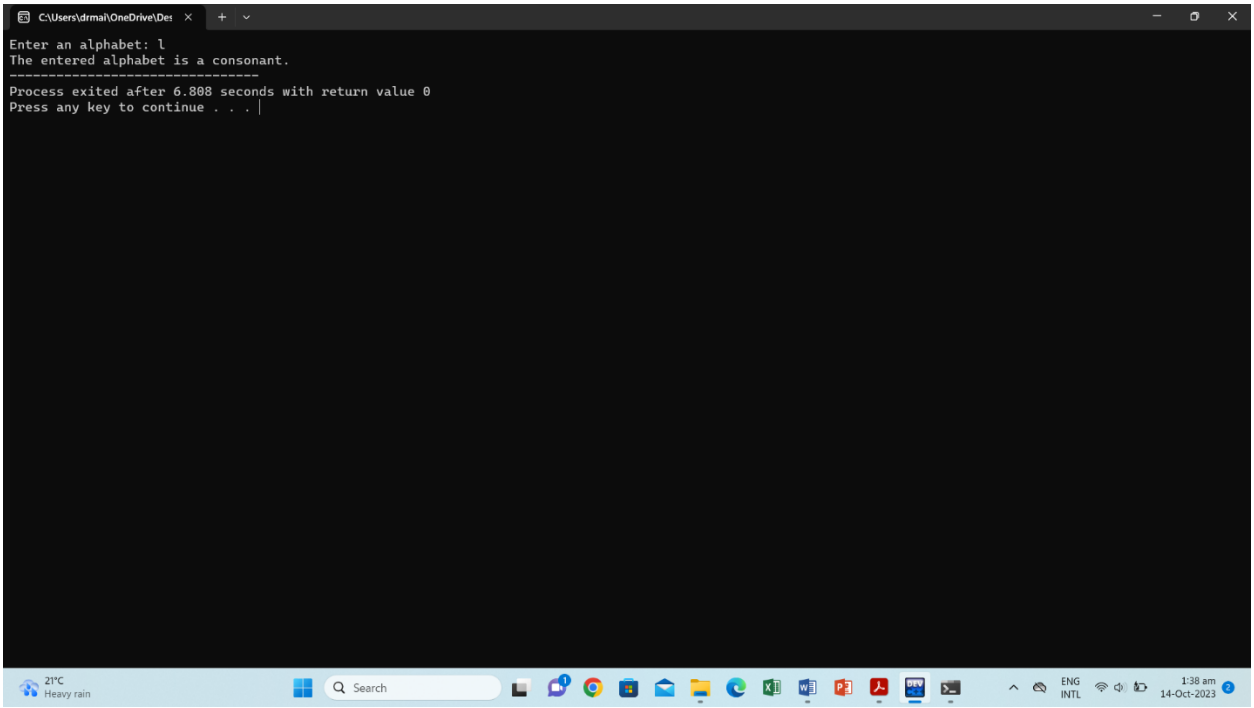
INPUT:

```
#include <iostream>
using namespace std;
int main() {
   char X;
   // Input a single alphabet
   cout<<"Enter an alphabet: ";
   cin >>X;
   // Check whether the input is a vowel or a consonant
   if (X>='a'&&X<='z'){
      if(X=='a'||X=='e'||X=='i'||X=='o'||X=='u'){
         cout<<"The entered alphabet is a vowel.";
      } else{
         cout<<"The entered alphabet is a consonant.";
      }
   } else{
      cout<<"Invalid input. Please enter a valid alphabet.";
   }
   return 0;
}
```

OUTPUT:


C:\Users\drmai\OneDrive\Des
Enter an alphabet: e
The entered alphabet is a vowel.

Process exited after 14.31 seconds with return value 0
Press any key to continue . . .
21°C
Heavy rain
Search
ENG
INTL
1:37 am
14-Oct-2023


C:\Users\drmai\OneDrive\Des
Enter an alphabet: l
The entered alphabet is a consonant.

Process exited after 6.808 seconds with return value 0
Press any key to continue . . .
21°C
Heavy rain
Search
ENG
INTL
1:38 am
14-Oct-2023