School Of Mechanical & Manufacturing Engineering, NUST

Department of Mechanical Engineering

CS-114 - Fundamental of Programing

Lab Manual # 03

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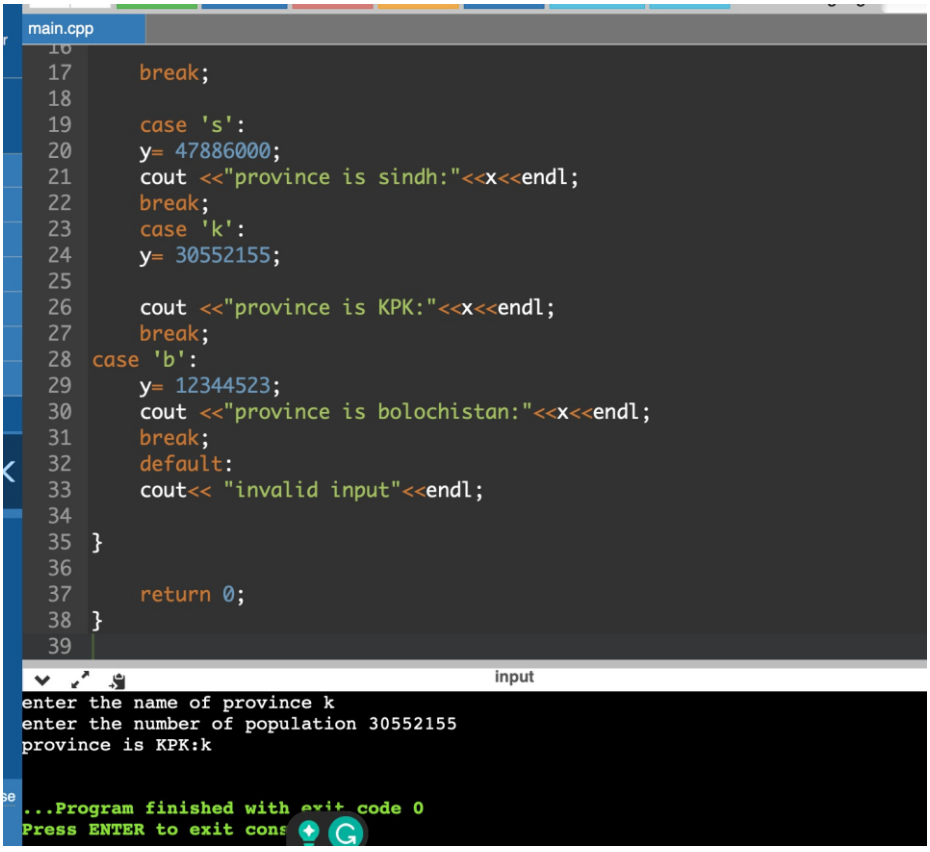
TASK 1:

Code:

```
#include <iostream>
using namespace std;

int main() {
char x;
int y;
cout<<"enter the name of province ";
cin>>x;
cout<<"enter the number of population ";
cin>>y;
switch(x){

   case 'p':
   y = 110012444;
   cout<<"province is punjab:"<<x<<endl;

   break;

   case 's':
   y= 47886000;
   cout <<"province is sindh:"<<x<<endl;
   break;
   case 'k':
   y= 30552155;

   cout <<"province is KPK:"<<x<<endl;
   break;
case 'b':
   y= 12344523;
   cout <<"province is bolochistan:"<<x<<endl;
   break;
   default:
   cout<< "invalid input"<<endl;
```

```
}

    return 0;
}
```

OUTPUT:



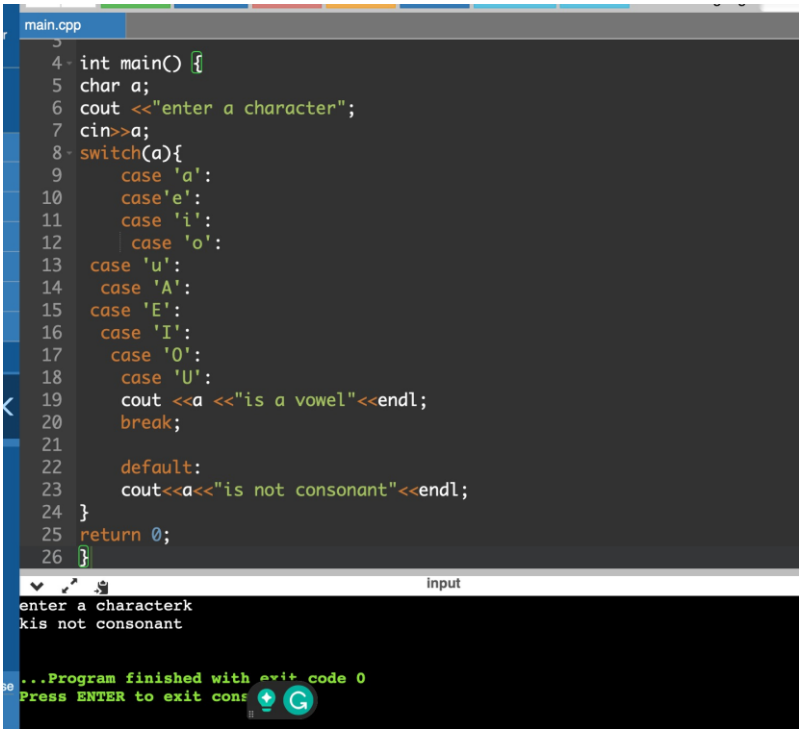
TASK 2:

Code:

```
#include <iostream>
using namespace std;

int main() {
char a;
cout <<"enter a character";
cin>>a;
```

```
switch(a){
    case 'a':
    case'e':
    case 'i':
     case 'o':
 case 'u':
  case 'A':
 case 'E':
  case 'I':
   case 'O':
    case 'U':
    cout <<a <<"is a vowel"<<endl;
    break;

    default:
    cout<<a<<"is not consonant"<<endl;
}
return 0;
}
```

OUTPUT:

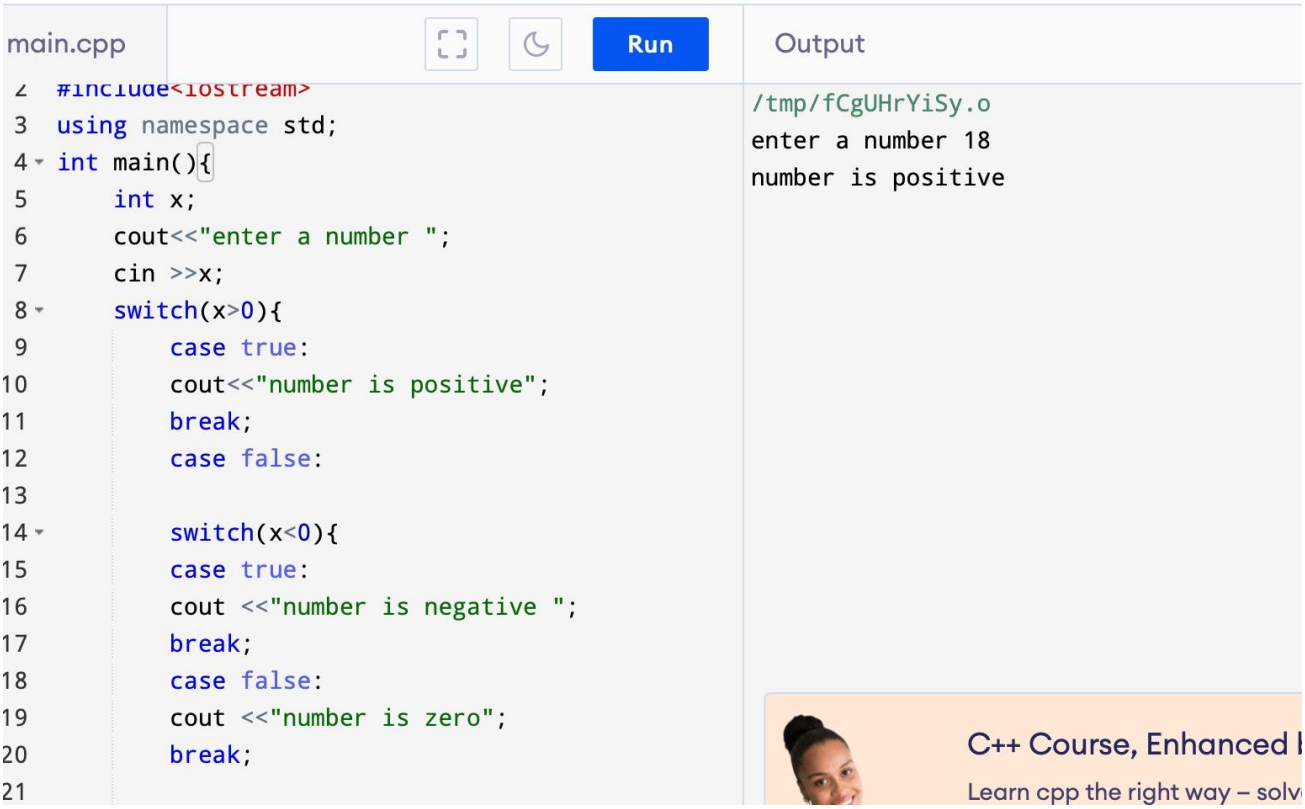


TASK 3:

Code:

```
#include<iostream>
using namespace std;
int main(){
    int x;
    cout<<"enter a number ";
    cin >>x;
    switch(x>0){
        case true:
        cout<<"number is positive";
        break;
        case false:

        switch(x<0){
        case true:
        cout <<"number is negative ";
        break;
        case false:
        cout <<"number is zero";
        break;


    }
    return 0;
}
```

OUTPUT:



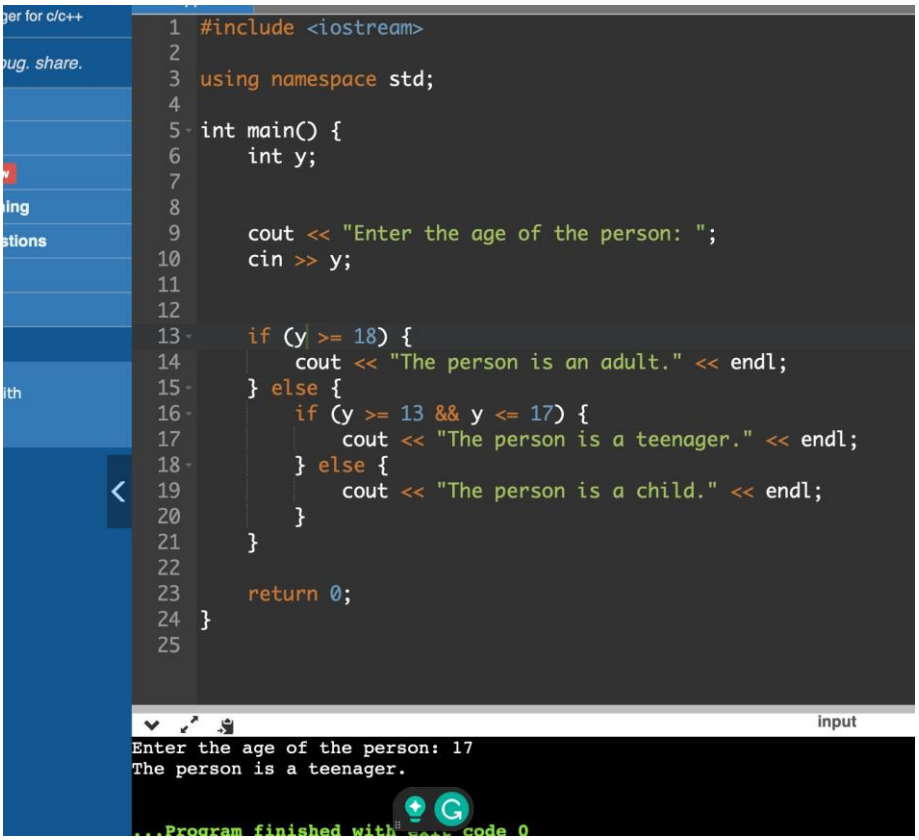
TASK 4:

Code:

```
#include <iostream>

using namespace std;

int main() {
   int y;



   cout << "Enter the age of the person: ";
   cin >> y;



   if (y >= 18) {
      cout << "The person is an adult." << endl;
   } else {
```

```
    if (y >= 13 && y <= 17) {
        cout << "The person is a teenager." << endl;
    } else {
        cout << "The person is a child." << endl;
    }
}

    return 0;
}
```

OUTPUT:



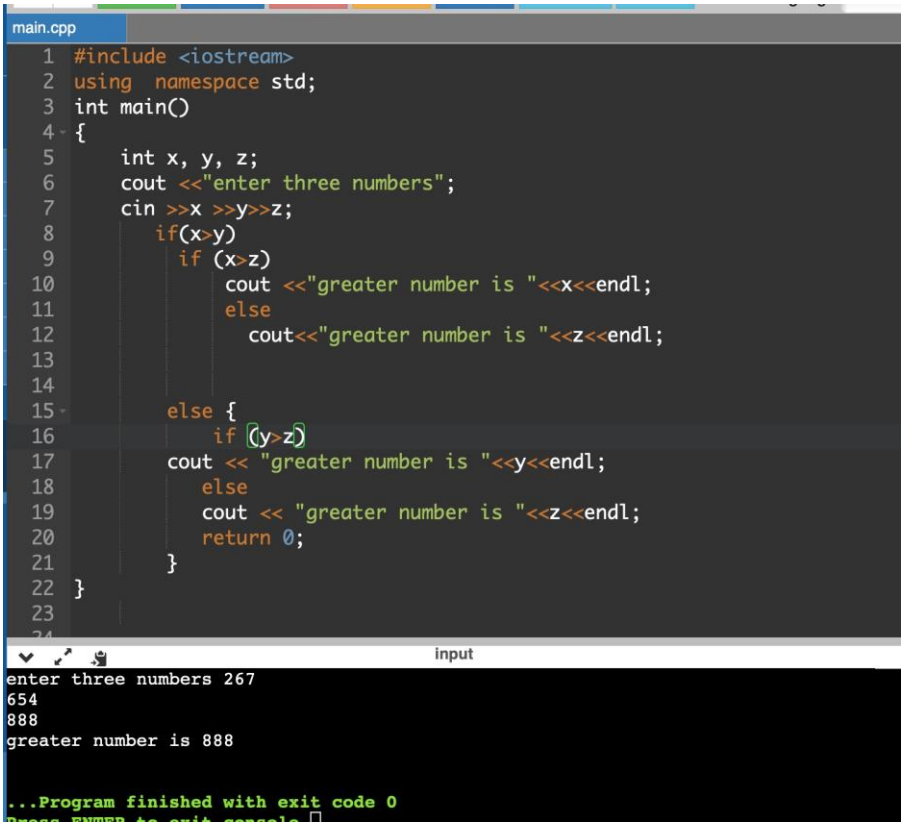
TASK 5:

Code:

```
#include <iostream>
using  namespace std;
int main()
{
   int x, y, z;
```

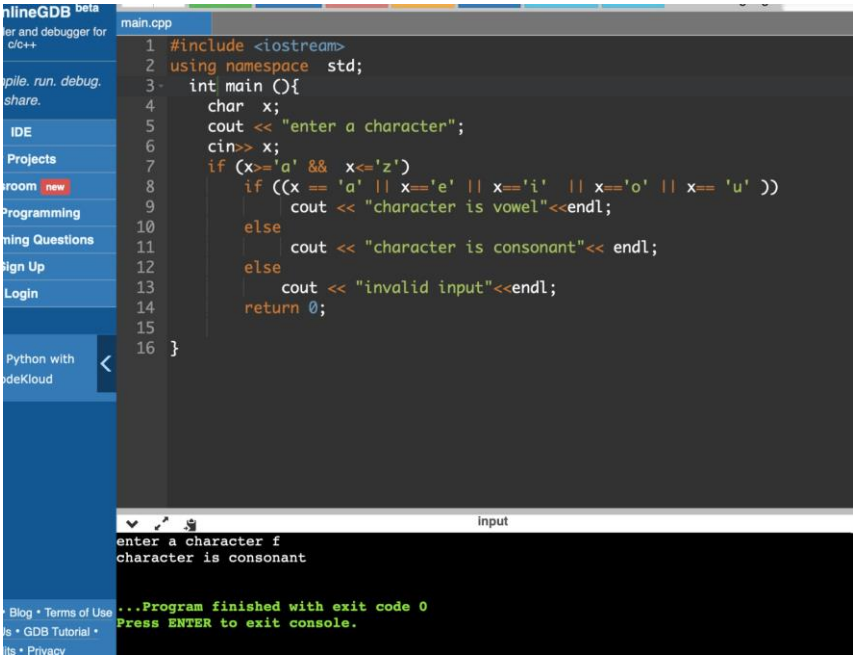
```
cout <<"enter three numbers";
cin >>x >>y>>z;
  if(x>y)
   if (x>z)
      cout <<"greater number is "<<x<<endl;
      else
        cout<<"greater number is "<<z<<endl;



   else {
     if (y>z)
   cout << "greater number is "<<y<<endl;
     else
     cout << "greater number is "<<z<<endl;
     return 0;
   }
}
```

OUTPUT:



TASK 6:

Code:

```
#include <iostream>
using namespace  std;
 int main (){
   char  x;
   cout << "enter a character";
   cin>> x;
   if (x>='a' &&  x<='z')
      if ((x == 'a' || x=='e' || x=='i'  || x=='o' || x== 'u' ))
          cout << "character is vowel"<<endl;
      else
          cout << "character is consonant"<< endl;
      else
         cout << "invalid input"<<endl;
      return 0;

}
```

OUTPUT: