



**NUST**  
NATIONAL UNIVERSITY  
OF SCIENCES & TECHNOLOGY

**DEPARTMENT OF MECHANICAL ENGINEERING**

**Subject: Fundamentals of Programming**

**Assignment No. 3**

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## **FIRST PROGRAM**

```
#include<iostream>
using namespace std;
int main(){
    char province;
    float p, k, s, b;
    cout<<"write p to check the population of punjab"<<endl;
    cout<<"write s to check the population of sindh"<<endl;
    cout<<"write k to check the population of kpk"<<endl;
    cout<<"write b to check the population of balochistan"<<endl;
    cin>>province;
    switch(province){
        case 'p':
            cout<<"the population of punjab is 127,474,000";
            break;
        case 'k':
            cout<<"the population of kpk is 40.8 million";
            break;
        case 'b':
            cout<<"the population of balochistan is 21.7 million";
            break;
        case 's':
            cout<<"the population of sindh is 54,858,515 ";
            break;
    }
    return 0;
```

}

### OUTPUT

```
write p to check the population of punjab
write s to check the population of sindh
write k to check the population of kpk
write b to check the population of balochistan
p
the population of punjab is 127,474,000
-----
Process exited after 2.76 seconds with return value 0
Press any key to continue . . .
```

### SECOND PROGRAM

```
#include<iostream>
using namespace std;
int main(){
char letter;
cout<<"Enter any letter"<<endl;
cin>>letter;
switch(letter){
    case 'a':
    case 'e':
    case 'i':
    case 'o':
    case 'u':
        cout<<"It is vowel";
        break;
    default:
        cout<<"It is consonant";
```

```
        break;
    }

    return 0;
}
```

### OUTPUT

```
Enter any letter
u
It is vowel
-----
Process exited after 1.841 seconds with return value 0
Press any key to continue . . .
```

```
Enter any letter
c
It is consonant
-----
Process exited after 3.851 seconds with return value 0
Press any key to continue . . .
```

### THIRD PROGRAM

```
#include<iostream>

using namespace std;

int main(){
    int n;
    cout<<"Enter number :"<<endl;
    cin>>n;
    switch (n>0){
    case 1:
        cout<<"The number is positive"<<endl;
        break;
```

```
case 0:
switch(n<0){
case 1:
cout<<"The number is negative"<<endl;
break;
case 0:
cout<<"The number is 0"<<endl;
break;
}
break;
}
return 0;

}
```

### OUTPUT

```
Enter number :
2
The number is positive
-----
Process exited after 1.008 seconds with return value 0
Press any key to continue . . .
```

```
Enter number :
-8
The number is negative
-----
Process exited after 4.021 seconds with return value 0
Press any key to continue . . .
```

```
Enter number :  
0  
The number is 0  
  
-----  
Process exited after 3.026 seconds with return value 0  
Press any key to continue . . .
```

#### **FOURTH PROGRAM**

```
#include<iostream>  
using namespace std;  
int main(){  
    int age;  
    cout<<"Enter your age"<<endl;  
    cin>>age;  
    if(age>=20){  
        cout<<"You are adult";  
    } else {  
        if (age <=19 && age >=13){  
            cout<<"You are teenager";  
        } else {  
            cout<<"You are child";  
        }  
    }  
    return 0;  
}
```

#### **OUTPUT**

```
Enter your age
20
You are adult
-----
Process exited after 5.824 seconds with return value 0
Press any key to continue . . .
```

```
Enter your age
18
You are teenager
-----
Process exited after 4.556 seconds with return value 0
Press any key to continue . . .
```

```
Enter your age
23
You are adult
-----
Process exited after 3.219 seconds with return value 0
Press any key to continue . . .
```

### FIFTH PROGRAM

```
#include<iostream>
using namespace std;
int main(){
int m,n,b,greatest;
cout<<"ENTER FIRST NUMBER"<<endl;
cin>>m;
cout<<"ENTER THE SECOND NUMBER"<<endl;
cin>>n;
cout<<"ENTER THE THIRD NUMBER"<<endl;
cin>>b;
if (m > n) {
```

```

greatest = m;
} else {
if (n > b) {
greatest = n;
} else {
greatest = b;
}
}
cout << "The greatest number is: " << greatest << endl;
return 0;
}

```

### OUTPUT

```

ENTER FIRST NUMBER
5
ENTER THE SECOND NUMBER
7
ENTER THE THIRD NUMBER
9
The greatest number is: 9

-----
Process exited after 7.658 seconds with return value 0
Press any key to continue . . .

```

### SIXTH PROGRAM

```

#include<iostream>
using namespace std;
int main(){
char a;
cout<<"Enter any letter"<<endl;

```



```
cin>>a;
if(a == 'a' || a == 'e' || a == 'i' || a == 'o' |a ==
'u'){
cout<<"IT IS VOWEL";
} else {
cout<<"IT IS CONSONANT";
}
return 0;
}
```

### OUTPUT

```
Enter any letter
N
IT IS CONSONANT
-----
Process exited after 2.83 seconds with return value 0
Press any key to continue . . .
```

```
Enter any letter
e
IT IS VOWEL
-----
Process exited after 3.208 seconds with return value 0
Press any key to continue . . .
```