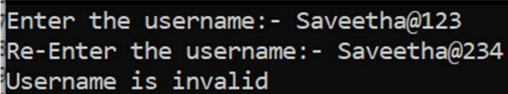


## DSA0126-OOPS FOR C++ PROGRAMMING

1. #include<iostream>

using namespace std;

```
int main(){
    string a,b;
    cout<<"Enter the username:- ";
    cin>>a;
    cout<<"Re-Enter the username:- ";
    cin>>b;
    if(a==b){
        cout<<"Username is valid";
    }
    else{
        cout<<"Username is invalid";
    }
}
```



Enter the username:- Saveetha@123  
Re-Enter the username:- Saveetha@234  
Username is invalid

3. #include<iostream>

using namespace std;

```
int main(){
    int n,rev=0,rem;
    cout<<"Enter the number= ";
    cin>>n;
    if(n>0){
        while(n!=0){
            rem=n%10;
            rev=rev*10+rem;
            n/=10;
        }
    }
}
```

```

    }

    cout<<"The reversed number= "<<rev<<endl;

    }

    else if(n<0){

        cout<<"Negative cant be reversed";

    }

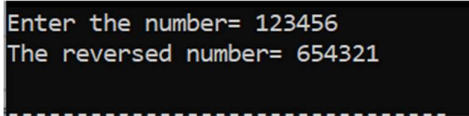
    else{

        cout<<"Invalid";

    }

}

```



```

Enter the number= 123456
The reversed number= 654321

```

4. #include<iostream>

using namespace std;

```

int main(){

    int age,vote;

    cout<<"Enter your age: ";

    cin>>age;

    if(age>0){

        if(age>=18){

            cout<<"You are eligible to vote";

        }

        else if(age<18){

            vote=18-age;

            cout<<"You are not eligible to vote after " <<vote<< " years";

        }

    }

}

else if(age<0){

    cout<<"Age can't be invalid";

```

```

    }
    else{
        cout<<"Invalid";
    }
    return 0;
}

```

```

Enter your age: 7
You are eligible to vote after 11 years

```

5. #include<iostream>

#include<string.h>

using namespace std;

int main(){

    char string1[20];

    int i,l;

    int flag=0;

    cout<<"Enter the string:- ";

    cin>>string1;

    l=strlen(string1);

    for(i=0;i<l;i++){

        if(string1[i]!=string1[l-i-1]){

            flag=1;

            break;

        }

    }

    if(flag){

        cout<<"Is not a palindrome"<<string1<<endl;

    }

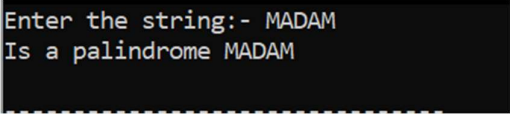
    else{

        cout<<"Is a palindrome "<<string1<<endl;

```

    }
}

```



```

Enter the string:- MADAM
Is a palindrome MADAM

```

```

6. #include<iostream>

using namespace std;

int main(){

    int rows,i,j;

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

    cin>>rows;

    for(int i=1;i<=rows;i++){

        for(int j=1;j<=i;j++){

            cout<<"*";

        }

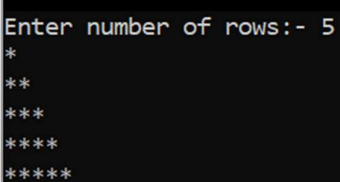
        cout<<"\n";

    }

    return 0;

}

```



```

Enter number of rows:- 5
*
**
***
****
*****

```

```

7. #include<iostream>

using namespace std;

int main(){

    int rows,a=1,i,j,number;

    cout<<"Enter number of rows= ";

    cin>>rows;

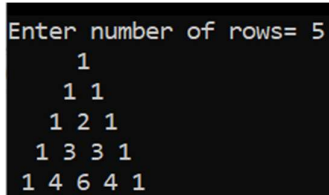
    for(int i=0;i<rows;i++){

```

```

        for(int space=1;space<=rows-i;space++)
        cout<<" ";
        for(int j=0;j<=i;j++){
            if(j==0 || i==0)
                a=1;
            else
                a=a*(i-j+1)/j;
            cout<<a<<" ";
            ++number;
        }
        cout<<endl;
    }
    return 0;
}

```



```

Enter number of rows= 5
    1
  1 1
 1 2 1
1 3 3 1
1 4 6 4 1

```

```

8. #include<iostream>
using namespace std;
int main(){
    float amt,yr,roi,si;
    string ch;
    cout<<"Enter the principal amount:- ";
    cin>>amt;
    cout<<"Enter the number of years:- ";
    cin>>yr;
    cout<<"Is customer senior citizen(y/n):- ";
    cin>>ch;

```

```

        if(ch=="y"){
            si=amt*yr*12/100;
            cout<<"Interest:- "<<si;
        }
        else if(ch=="n"){
            si=amt*yr*10/100;
            cout<<"Interest"<<si;
        }
        else{
            cout<<"INVALID INPUT";
        }
        return 0;
    }
}

```

```

Enter the principal amount:- 200000
Enter the number of years:- 3
Is customer senior citizen(y/n):- n
Interest:- 60000

```

16. #include<iostream>

using namespace std;

```

int main(){
    int inc,tax;
    cout<<"Enter the income:- ";
    cin>>inc;
    if(inc<=60000){
        tax=0;
        tax=inc-tax;
        cout<<"Income Tax= "<<tax;
    }
    else if(inc>60000<=150000){
        tax=inc*0.05;
        cout<<"Income Tax= "<<tax;
    }
}

```

```
}  
else if(inc>150000<=500000){  
    tax=inc*0.1;  
    cout<<"Income Tax= "<<tax;  
}  
else{  
    tax=inc*0.15;  
    cout<<"Income Tax= "<<tax;  
}  
return 0;  
}
```

```
Enter the income:- 125000  
Income Tax= 6250
```