

PSP LAB Assignment

Roll No.: -SGMC21107

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Q-1 Print a pyramid pattern of a value N. (using loops)

Ans :-

CODE

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

int main()
{
    int n;
    cout<<"Enter a Number :";
    cin>>n;
    for(int i=0;i<n;i++)
    {
        for(int j=0;j<=i;j++)
        {
            cout<<j+1<<" ";
        }
        cout<<endl;
    }
}
```

```

PS D:\VSS Codes\17-11> cd "d:\VSS Codes\17-11"
Enter a Number :5
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
PS D:\VSS Codes\17-11>

```

Q-2 Write a program for counting frequency of an integer in an array.

Ans :-

CODE

```

#include<iostream>
using namespace std;
int main()
{
    int n,f,count=0;
    cout<<"Enter Number of Elements in Array :";
    cin>>n;
    int ar[100];
    cout<<"Enter " <<n<<" elements seprated by space : ";
    for(int i=0;i<n;i++)
    {
        cin>>ar[i];
    }
    cout<<"Enter number you want to find Frequency of :";
    cin>>f;
    for(int i=0;i<n;i++)
    {
        if(f==ar[i])
        {
            count++;
        }
    }
}

```

```

    }
}
cout<<"Frequency of "<<f<<" is "<<count;
}

```

```

PS D:\VSS Codes\17-11> cd "d:\VSS Codes\17-11\" ; i
Enter Number of Elements in Array :6
Enter 6 elements separated by space : 1 3 5 3 5 4
Enter number you want to find Frequency of :3
Frequency of 3 is 2
PS D:\VSS Codes\17-11>

```

Q-3 Write a program to rotate array-elements to right by k th times

Ans :-

CODE

```

#include<iostream>
using namespace std;
int main()
{
    int n,k;
    cout<<"Enter Number of Elements in Array :";
    cin>>n;
    int ar[100],br[100];
    cout<<"Enter "<<n<<" elements separated by space : ";
    for(int i=0;i<n;i++)
    {
        cin>>ar[i];
    }
    cout<<"Enter how much time you want to move array by : ";
    cin>>k;
    for(int i=0;i<n-k;i++)
    {
        br[i+k] = ar[i];
    }
}

```

```

for(int i=0;i<k;i++)
{
    br[i]=ar[n-k+i];
}
for(int i=0;i<n;i++)
{
    cout<<br[i]<<" ";
}
}

```

```

PS D:\VSS Codes\17-11> cd "d:\VSS Codes\17-11\" ; if ($?) {
Enter Number of Elements in Array :6
Enter 6 elements separated by space : 1 2 3 4 5 6
Enter how much time you want to move array by : 4
3 4 5 6 1 2
PS D:\VSS Codes\17-11>

```

//Q4 Write a program to reverse the words in a given String

Ans:-

CODE

```

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

int main()
{
    string s,q="";
    cout<<"Enter a String :";
    getline(cin,s);
    for(int i=0;i<s.length();i++)
    {
        if(s[i]!=' ')
        {
            q=s[i]+q;
        }
        else

```

```
        {  
            cout<<q<<" ";  
            q="";  
        }  
    }  
    cout<<q;  
  
    return 0;  
}
```

```
PS D:\VSS Codes\17-11> cd "d:\VSS Codes\17-11"
Enter a String :Sagar Gupta is Awesome
ragaS atpuG si emosewA
PS D:\VSS Codes\17-11>
```