

1) Given a String S, Find the total number of palindromes in it.
 "abc" -> 3
 "aaaa" -> 10
 "aba" -> 4

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int countPalindromes(String S) {
int ans=S.length(); int i=0;int j=0;int k=0;
int n=s.length();
int **ptr=new int *[(n-1)];
for(int i=0;i<(n-1);i++)
{   ptr[i]=new int [n-1];
    }
for(k=1;k<n;k++)
{
    for(i=0;s[i]!='\0'i++,)
        {
            j=i+k;
            if(k==1||k==2)
                {
                    if(s[i]==s[j])
                        {
                            ptr[i][j]=1;
                            ans++;
                        }
                    else
                        ptr[i][j]=0;
                }
            else
                {
                    if(ptr[i+1][j-1]==1 && s[i]==s[j])
                        {
                            ptr[i][j]=1;
                            ans++;
                        }
                    else
                        ptr[i][j]=0;
                }
        }
    }
}
return ans
}
```