Strings
LEVEL 1

1. Lokesh have

```c
#include <stdio.h>
#include<string.h>
#include<ctype.h>
int main()
{ char ch[100];
scanf("%s",ch);
for(int i=0;i<strlen(ch);i++)
{if(isupper(ch[i]))
ch[i]=tolower(ch[i]);
else
ch[i]=toupper(ch[i]);
} printf("%s",ch);      return 0;
}
```

2. Hassan is given

```c
#include <stdio.h>
#include <string.h>
int main()
{  int t;
scanf("%d",&t);
while(t--)
{
   char s[100001];
   scanf("%s",s);
   int i,c=0;
   for(i=0;i<strlen(s)-1;i++)
   {
     if(s[i]==s[i+1])
     c++;
   }printf("%d\n",c);
}
        return 0;
}
```

3. Fazil's faculty

```c
#include <stdio.h>
int main()
{
int t,n,i;
scanf("%d",&t);
while(t--)
```

```c
{
int c=0;
scanf("%d",&n);
for(i=0;i<=n;i++)
{
char string;
scanf("%c",&string);
if(string=='1')
c++;
}
printf("%d\n",((c+1)*c)/2);
}

return 0;
}
```

4. Nathan wants

```c
#include <stdio.h>
#include<string.h>
int main()
{ int t;
scanf("%d",&t);
while(t--)
{
   int i,c=0,MAX=255;
   char a[MAX],b[MAX];
   scanf("%s",a);
   scanf("%s",b);
   for(i=0;a[i];i++)
   {
      if((a[i]==b[i])||(a[i]=='?'||b[i]=='?'))
      c++;
   }
   if(c==strlen(a))
   printf("Yes\n");
   else
   printf("No\n");
}

        return 0;
}
```

5. Roopa has given

```c
#include <stdio.h>
#include <string.h>
int main()
{
   const char *a[]={"zero","one","two","three","four","five","six","seven","eight","nine"};
```

```c
    const char
*b[]={"ten","eleven","twelve","thrirteen","fourteen","fifteen","sixteen","seventeen","eighteen","nineteen"};
    const char *c[]={" "," ","twenty","thirty","forty","fifty","sixty","seventy","eighty","ninety"};
    char num[10];
    int l,n,n1;
    scanf("%s",num);
    l=strlen(num);
    if (l==4)
    {
       while(l--)
       {
        if(l==3 && num[0]!='0'){
           printf("%s thousand ",a[*num-'0']);
        }

    if(l==2 && num[1]!='0' && num[2]=='0' && num[3]=='0')
    {
       n=num[1]-48;
       printf("%s hundred",a[n]);
       break;
    }
    if(l==2 && num[1]!='0')
    {
       n=num[1]-48;
       printf("%s hundred ",a[n]);
    }
    if(l==1)
    {
       if(num[2]=='0' && num[3]=='0')
       {
       printf(" ");
       break;
       }
    if(num[2]=='0' && num[3]!='0')
    {
    n=num[3]-48;
    printf("%s",a[n]);
    break;
    }

    if(num[3]!='0' && num[2]!='1']&&num[2]!='0')
    {
       n=num[2]-48;
       n1=num[3]-48;
       printf("and %s %s",c[n],a[n1]);
       break;
    }
    if(num[3]=='0')
    {
       n=num[2]-48;
       printf("and %s",c[n]);
```

```c
        break;
    }
    if(num[2]=='1')
    {
        n=num[3]-48;
        printf("and %s",b[n]);
        break;
    }
}
}
}
        return 0;
}
```

6. Jeferson was given

```c
#include <stdio.h>
#include<string.h>
int main()
{ char arr[10];
int t,count=0,i;
scanf("%d",&t);
while(t!=0)
{
    scanf("%s",arr);
    for(i=0;i<strlen(arr);i++)
    {
    if(arr[i]!=arr[i+1])
    count++;
    }
count--;
if(count<=2)
printf("uniform\n");
else
printf("non-uniform\n");
t--;
count=0;
}
        return 0;
}
```

7. Arif likes to play

```c
#include <stdio.h>
#include<string.h>
#include<ctype.h>
int main()
{ char matchscenario[102];
int t,count=0;
scanf("%d",&t);
for(int i=0;i<t;i++)
```

```c
{ scanf("%s",matchscenario);
    for(int j=0;j<strlen(matchscenario);j++)
    {
    if(matchscenario[j]-'0'!=0)
    count++;
    }
    if(count<11)
    printf("LOSS\n");
    else
    printf("WIN\n");
    count=0;
}
        return 0;
}
```

8. Afghanistan

```c
#include <stdio.h>
int i,sol=1;
void prime(char str[9]){
    for(i=0;i<8;i++){
        if(str[2]=='B') goto print;
        int sum=0;
        sum=str[i]+str[i+1];
        if(sum%2!=0) sol=0;}
        print:
            if(sol==1) printf("Allowed"); else if(sol==0) printf("Arrest");}
int main(){
    char tag[9];
    scanf("%s",tag);
    if(tag[2]=='E') sol=0;
    if(sol==1) prime(tag); else printf("Arrest");
    return 0;}
```

9. Janu & Ram

```c
#include <stdio.h>
#include<string.h>
int main()
{
int t;
scanf("%d",&t);
while(t--)
{
    char string[100];
    char b[100];
    scanf("%s %s",string,b);
    char* p;
    p=strstr(string,b);
    if(p)
    printf("Exists\n");
```

```c
    else
    {
       int i,x=strlen(string);
       printf("Dosen't Exists\n");
       for(i=0;i<x;i++);
    }
}


        return 0;
}
```

10. Nathan won the man

```c
#include <stdio.h>
#include <string.h>
#include <ctype.h>
int main()
{ char s[100];
int t;
scanf("%d",&t);
while(t!=0)
{ scanf("%s",s);
   for(int i=0;s[i]!='\0';i++)
   { if(islower(s[0]))
   s[i]=tolower(s[i]);
   else if(isupper(s[0]))
   s[i]=toupper(s[i]);
   }
   printf("%s\n",s);
   t--;
}
              return 0;
}
```

LEVEL 2

1. Given 'n' words

```c
#include <stdio.h>
#include<string.h>
int main()
{
 int i,j,k,l,m,n,o,p,t,len[15],flag,s,z,key,min;
 char a[15][25],ans[25],aa[25];
 scanf("%d",&t);
 for(z=1;z<=t;z++)
 {
   flag=s=0;
   min=1000;
   for(i=0;i<=24;i++)
   {
     ans[i]='\0';
   }
   scanf("%d",&n);
   for(i=0;i<=n-1;i++)
   {
     scanf("%s",a[i]);
     m=strlen(a[i]);
     len[i]=m;
     if(m<min)
     {
       min=m;
       key=i;
     }
   }
   for(i=min;i>=1;i--)
   {
     for(j=0;j<=min-i;j++)
     {
       l=j;
       k=0;
       while(k<=i-1)
       {
         aa[k]=a[key][l];
         k++;
         l++;
       }
       aa[k]='\0';
       for(o=0;o<=n-1;o++)
       {
         flag=0;
         for(p=0;p<=len[o]-i;p++)
         {
           if(strcmp(&a[o][p],aa)==a[o][p+i])
```

```c
                {
                  flag=1;
                  break;
                }
              }
            if(flag==0)
              break;
          }
        if(flag==1)
        {
          s=1;
          if(strlen(ans)==0)
          {
            strcpy(ans,aa);
          }
          else
          {
            if(strcmp(ans,aa)>0)
              strcpy(ans,aa);
          }
        }
      }
    if(s==1)
      break;
  }
  printf("%s\n",ans);
 }
 return 0;
}
```

2. Yaswanth

```c
#include <stdio.h>
#include <string.h>
int main()
{
  char K[105];
  int n;
  scanf("%d",&n);
  while(n--)
  {
    int i,k;
    scanf("%d",&k);
    for(i=(97+k);i>=97;i--)
    {
      printf("%c",i);
      K[0]=i;
    }
    printf("\n");
  }
  strcat(K,"z");
```

```c
return 0;
}
```

3. Peter given two binary

```c
#include <stdio.h>
#include<string.h>
int indexfind(int n,int i,char A[],char B[])
{ while(i<n&&A[i]!=B[i])
   i+=2;
  return i;
}
int main()
{ int t,i;
  scanf("%d",&t);
  for(i=0;i<t;i++)
   { char A[100000];char B[100000];
    scanf("%s %s",A,B);
    int n=strlen(A);
    int opr=0,j;
    for(j=0;j<n;j+=2)
     { if(A[j]!=B[j])
       { j=indexfind(n,j,A,B);
         opr++;
       }
     }
    for(j=1;j<n;j+=2)
     { if(A[j]!=B[j])
       { j=indexfind(n,j,A,B);
         opr++;
       }
     }
    printf("%d\n",opr);
   }
        return 0;
}
```

4. According to Berlin

```c
#include <stdio.h>
#include <string.h>
int main()
{int n, i,c,j;
char s[50];
scanf("%d",&n);
char alchoholbrands[11][20]={"ABSINTH","BEER", "BRANDY","CHAMPAGNE", "GIN","RUM",
"SAKE","TEQUILA", "VODK", "WHISKEY", "WINE"};
char age [18][5]={"0","1","2","3","5","6","7","8","9","18","11","12","13","14","15","16","17"};
for(i=0;i<n;i++)
{scanf("%s",s);
for(j=0; j<18;j++)
```

```c
{
if(strcmp(s, age[j])==0)
c++;
else if(strcmp(s,alchoholbrands[j])==0)
c++;
}}
printf("%d", c);
return 0;
}
```

5. Cook Maria

```c
#include <stdio.h>
#include <string.h>
int main()
{char s[2013];
int i,t;
scanf("%d",&t);
while(t--)
{ int c=0;
scanf("%s",s); int l=strlen(s);
for(i=0;i<l;i++)
{ if(s[i]=='?')
{s[i] = 'A';
c++; }
else if(s[i]!='?'&&s[i]!='K')
c=0;
if(c>1)
if(c==4||s[i]=='K'||s[i-3]=='C')
{
s[i-3]='C';
s[i-1]=s[i-2]='O';
s[i]='K';
c=0; }}
for(i=0;i<l;i++)
printf("%c",s[i]); printf("\n");
}return 0; }
```

6. The alien festival

```c
#include <stdio.h>
#include <string.h>
int main()
{int t;
scanf("%d", &t);
while(t--){
    char report[501];
    int n,i,h = 0,t=0;
    scanf("%d",&n);
    scanf("%s",report);
    int len = strlen(report);
```

```
  for(i = 0; i < len; i++){
    if(report[i] == 'H'&&h==t){h++;}
    else if(report[i] == 'T'){t++;}
  }
  (h == t) ? puts("Valid") : puts("Invalid");



}


  return 0;
}
```

7. Nathan got

```
#include <stdio.h>
#include<string.h>
int main()
{
    int t;
    scanf("%d",&t);
    while(t--)
    {
        int k,x,i,b[123]={0},p,K=0;
        char S[10001];
        scanf("%s",S);
        scanf("%d %d",&k,&x);
        for(i=0;i<strlen(S);i++)
        {
            p=(int)S[i];
            b[p]++;
            if(b[p]>x)
            {
                if(k==0)
                {
                    break;
                }
                else
                {
                    K++;
                    k--;
                }
            }
        }
        printf("%d\n",i-K);
    }
return 0;
}
```

8. Johan were

```c
#include<stdio.h>
#include<string.h>
#define mod 1000000007
#define LL long long int
int main()
{
        int i;
        long long int ans=0,prefix=0,x;
        char s[100005];
        scanf("%s",s);
        ans+=(LL)('Z'-s[0]);
        prefix=(LL)('Z'-s[0]);
        for(i=1;i<strlen(s);++i)
        {
                x=(LL)('Z'-s[i]);
                ans=(ans+((prefix+1ll)*x))%mod;
                prefix=((1ll*26*prefix)+x)%mod;}
        printf("%lld\n",ans);
        return 0;
}
```

9. Harini is a

```c
#include <stdio.h>
#include<string.h>
int main()
{
int t;
scanf("%d",&t);
while(t--)
{
   int i,k,count=0;
   char j[1000]; char s[1000]; scanf("%s%s",j,s);
   for(i=0;i<strlen(j);i++)
   {
     for(k=0;k<strlen(s);k++)
     {
       if(s[i]==j[k])
       {
          count++;
          break;
       }
     }
   }
   printf("%d\n",count);
}
return 0;
}
```

10. Jahson is stuck

```c
#include<math.h>
#include<stdio.h>
#include<string.h>
int main()
{
    int t,i,j;
    scanf("%d",&t);
    while(t--)
    {
        int n,k=0;
        scanf("%d",&n);
        char c[n][n];
        int d[n][n],a[n][n],b[n][n];
        for(i=0;i<n;i++)
            scanf("%s",c[i]);
        for(i=0;i<n;i++)
            for(j=0;j<n;j++)
            {
                if(c[i][j]=='.')
                    d[i][j]=0;
                else
                    d[i][j]=1;
            }
        for(i=0;i<n;i++)
        {
            a[i][n-1]=d[i][n-1];
            for(j=n-2;j>=0;j--)
                a[i][j]=a[i][j+1]+d[i][j];
        }
        for(i=0;i<n;i++)
        {
            b[n-1][i]=d[n-1][i];
            for(j=n-2;j>=0;j--)
                b[j][i]=d[j][i]+b[j+1][i];
        }
        for(i=0;i<n;i++)
            for(j=0;j<n;j++)
                if((a[i][j]==0)&&(b[i][j]==0))
                    k++;
        printf("%d\n",k);
    }
    return 0;
}
```

LEVEL 3

1. Amira has a string

```c
#include <stdio.h>

int main()
{ int n,t,i,count=0;
  char s[100];
  scanf("%d",&t);
  while(t--)
   { scanf("%d",&n);
     scanf("%s",s);
     for(i=0;i<n;i++)
      { if(s[i]!='a'&&s[i]!='e'&&s[i]!='i'&&s[i]!='o'&&s[i]!='u')
         { if(s[i+1]=='a'||s[i+1]=='e'||s[i+1]=='i'||s[i+2]=='o'||s[i+1]=='u')
             count++;
         }
      }
     printf("%d\n",count);
     count=0;
   }
        return 0;
}
```

2. Steve is a software

```c
#include <stdio.h>
#include<string.h>
int main()
{ char s[100][100];
  int t,i,n;
  scanf("%d",&t);
  while(t--)
   { scanf("%d",&n);
     for(i=1;i<=n;i++)
       scanf("%s",s[i]);
    for(i=1;i<=n;i++)
    { if((strcmp(s[i],"stop")==0)&&(strcmp(s[i+1],"stop")==0))
       { printf("404\n");
         break;
       }
     else if(i==n)
       printf("200\n");
    }
   }
        return 0;
}
```

3. Today is Jack's

```c
#include <stdio.h>
int main()
{
    int t,n,i;
    scanf("%d",&t);
    while(t--)
    {
     scanf("%d",&n);
     char S[n];
     int x=0,y=0;
     scanf("%s",S);
     for(i=0;i<n;i++)
     {
        if(S[i]=='L'&&S[i-1]!='L'&&S[i-1]!='R')
        x=x-1;
        else if(S[i]=='R'&& S[i-1]!='R'&&S[i-1]!='L')
        x=x+1;
        else if(S[i]=='D'&& S[i-1]!='D'&&S[i-1]!='U')
        y=y-1;
        else if(S[i]=='U'&& S[i-1]!='U'&&S[i-1]!='D')
        y=y+1;
     }
     printf("%d %d\n",x,y);
    }

        return 0;
}
```

4. Surya is a really nice

```c
#include <stdio.h>
int main()
{
    int t;
    scanf("%d",&t);
    while(t--)
    {
       int n,k,i;
       scanf("%d %d",&n,&k);
       char brothers[n];
       scanf("%s",brothers);
       int u=0,l=0;
       for(i=0;i<n;i++)
       {
          if((int)brothers[i] >= 65 && (int)brothers[i]<=90)
             u++;
          else
             l++;
       }
```

```c
      if(l<=k && u>k)printf("Brother\n");
      else if(l>k && u<=k)
        printf("Surya\n");
      else if(l<=k && u<=k)
        printf("Both\n");
      else
        printf("None\n");
   }
   return 0;
}
```

5. Neo and Morpheus

```c
#include <stdio.h>
#include<string.h>
int main()
{ char direction[1000000];
  int x=0,y=0,i;
  scanf("%s",direction);
  for(i=0;i<strlen(direction);i++)
   { if(direction[i]=='L')
      x--;
    else if(direction[i]=='R')
     x++;
    else if(direction[i]=='U')
     y++;
    else if(direction[i]=='D')
     y--;
   }
  printf("%d %d",x,y);
        return 0;
}
```

6. Joki

```c
#include <stdio.h>
#include<string.h>
int main()
{ char game[100000];
  int i=0,a=0,b=0,c=0,ans=0;
  scanf("%s",game);
  int len=strlen(game);
  while(i<len)
   { if(game[i]=='J')
     a++;
    else if(game[i]=='O')
     { if(a>b)
       b++;
     }
    else if(game[i]=='K')
     { if(b>c)
```

```c
        c++;
      }
    else if(game[i]=='I')
     { if(c>ans)
       ans++;
     }
     i++;
  }
  printf("%d",ans);
        return 0;
}
```

7. Colonel Sanders

```c
#include <stdio.h>
#include<string.h>
int main()
{long long int t;
scanf("%lld",&t);
while(t--){
   long long int len,i;
   char N[100001];
   scanf("%s",N);
   len = strlen(N);
   int flag =1;
   for(i=0;i<len;i++){
      if(N[i]=='E' && N[i+1]=='C')
      flag=0;
      else if(N[i]=='S' && N[i+1]=='C')
      flag =0;
      else if(N[i]=='S' && N[i+1]=='E')
      flag =0;
   }
(flag==0)?printf("no\n"):printf("yes\n");
}

        return 0;
}
```

8. Sudheep has given

```c
#include<stdio.h>
int main()
{
        int n, i, s=0, count=0, max=0, x=0, y=0, flag=0;
        char a[1000003],b[1000003];

        scanf("%d",&n);
        scanf("%s %s",a,b);

        for(i=0;i<n;i++){
```

```c
       if(a[0]==b[i]){
          y++;
                       s=i;
              count++;
              i++;
    while(a[y]==b[i]){
         count++;
         y++;
         i++;
         if(i==n){
             flag=1;
           break;
         }
      }
    int k=0;
       if(flag){
           while(y<n&&a[y]==b[k]){
                   count++;
                   y++;
           k++;
         }
      }
    if(max==count&&s<x){
                   x=s;
           } else if(max<count){
         max=count;
          x=s;
      }
        y=0;
       count=0;i--;
       flag=0;
      }
}

        printf("%d",x);
 return 0;
}
```

9. Abi has

```c
#include <stdio.h>
#include<string.h>
#include<stdlib.h>
int main()
{ char s[100];
 int t,count=0,i;
 scanf("%d",&t);
 while(t--)
  { scanf("%s",s);
    for( i=0;i<strlen(s);i++)
     {  if(s[i]!=s[i+1])
```

```c
        count++;
      }
    count--;
    if(count<=2)
     printf("beautiful\n");
    else
     printf("ugly\n");
  count=0;
  }
      return 0;
}
```

10. Andy flower

```c
#include <stdio.h>
#include<string.h>
#include<stdlib.h>
int main()
{ char s[100];
 int t,count=0,i;
 scanf("%d",&t);
 while(t--)
  { scanf("%s",s);
    for( i=0;i<strlen(s);i++)
      {  if(s[i]!=s[i+1])
          count++;
      }
    count--;
    if(count<=2)
     printf("beautiful\n");
    else
     printf("ugly\n");
  count=0;
  }
      return 0;
}
```