Date:05:05:2021

Pointers

1)reverse the string and remove the vowels

(i/p:summer o/p1:remmus o/p2:rmms

```
#include <stdio.h>


int main() {
   char a[50],b[50],c[50];
   printf("Enter the string : ");
   scanf("%s",&a);
   for(int i = 0;i<strlen(a);i++){
      b[i]=a[strlen(a)-i-1];
   }
   printf("\nThe reversed string is :%s",b);
   int x=0;
   for(int i=0;i<strlen(a);i++){
      if(a[i]=='a' || a[i]=='e' || a[i]=='i' || a[i]=='o' || a[i]=='u'){
         continue;
      }
      else{
         c[x] = a[i];
         x++;
      }
   }
   printf("\nThe string without vowels is : %s",c);
   return 0;
}
```

2)find the character which occurs maximum no of times in a string(i/p:summer o/p:m)

```
#include <stdio.h>
#include<string.h>

int main() {
   char a[100],b[50],m[50];
   int c[50];
   int n=0;
   printf("Enter the string : ");
   scanf("%s",a);
   for(int i=0;i<strlen(a);i++){
      int x=0;
      for(int j=0;j<strlen(b);j++){
         if(b[j] == a[i]){
            x++;
         }
      }
      if(x==0)
      {
         b[n]=a[i];
         n++;
      }
   }
   int max=0,mc=0;
   char ma;
   for(int i=0;i<strlen(b);i++){
      int count=0;
      for(int j=0;j<strlen(a);j++){
         if(b[i]==a[j]){
            count++;
         }
```

```
        }
        if(max<count){
            max=count;
            ma=b[i];
        }
        if(count == 1){
            m[mc]=b[i];
            mc++;
        }
    }
    printf("\n%c occurs maximun of %d times",ma,max);
    return 0;
}
```

3)given an array each number represents jump if you are able to reach the last return true else return false

[2,1,2,1,5]-return true

[1,2,1,3,1]=return false

```
#include <stdio.h>


int main() {
   int a[10];
   int n=0,x=0;
   printf("Enter the number of elements in the array : ");
   scanf("%d",&n);
   for(int i=0;i<n;i++){
      printf("\nEnter the %d element : ",i+1);
      scanf("%d",&a[i]);
   }
   while (x<n-1){
      x = x+a[x];
   }
   if(x==n-1){
      printf("\nTRUE");
   }
   else{
      printf("\nFALSE");
   }
   return 0;
}
```

4)find how many characters and numbers are there in alphanumeric string

i/p)ab2c4de o/p) alphabets=5 numbers=2

```
#include <stdio.h>


int main() {
   char a[100];
   int al=0,n=0;
   printf("Enter the string : ");
   scanf("%s",&a);
   for(int i=0;i<strlen(a);i++){
      if(a[i]>=97 && a[i]<=122){
         al++;
      }
      else{
         n++;
      }
   }
   printf("alphabets : %d\nnumerics : %d",al,n);
   return 0;
}
```

5)check whether a number is power of 2 without built in function

i/p:10 o/p:NO

i/p:16 o/p:Yes

```
#include <stdio.h>


int main() {
   int a=0,x=2;
   printf("Enter the numbmer : ");
   scanf("%d",&a);
   while(a>=x){
      if(x==a){
         printf("\nYES");
         break;
      }
      else{
         x=x*2;
      }
   }
   if(x>a){
      printf("\nNO");
   }
   return 0;
}
```

Date:06:05:2021

1.Write a c program to find no of vowels and consonants in string

Input:india

Output:vowels:3

consonants:2

```
#include <stdio.h>
#include<string.h>

int main() {
   char a[50];
   int vow=0,con=0;
   printf("Enter the string : ");
   gets(a);
   for(int i=0;i<strlen(a);i++){
      if(a[i]>=97 && a[i]<=122){
         if(a[i]==97 || a[i]==101 || a[i]== 105 || a[i]==111 || a[i]==117){
            vow++;
         }
         else{
            con++;
         }
      }
   }
   printf("\nvowels : %d\nconsonants : %d",vow,con);
   return 0;
}
```

2.Find the equivalent numerical representation of string

Input:abzc

Output:12263

```
#include <stdio.h>
#include<string.h>

int main() {
   char a[50];
   printf("Enter the string : ");
   gets(a);
   for(int i=0;i<strlen(a);i++){
      printf("%d ",a[i]-96);
   }
   return 0;
}
```

3.Find the no of occurences of each character in string

Input:abcba

Output:a=2

b=2

a=1

```
#include <stdio.h>
#include<string.h>

int main() {
   char a[100],b[50];
   int c[50];
   int n=0;
   printf("Enter the string : ");
   scanf("%s",a);
   for(int i=0;i<strlen(a);i++){
      int x=0;
      for(int j=0;j<strlen(b);j++){
         if(b[j] == a[i]){
            x++;
         }
      }
      if(x==0)
      {
         b[n]=a[i];
         n++;
      }
   }
   for(int i=0;i<strlen(b);i++){
      int count=0;
      for(int j=0;j<strlen(a);j++){
         if(b[i]==a[j]){
```

```
            count++;
          }
        }
        printf("\n%c occurs %d time",b[i],count);
    }
    return 0;
}
```

4.Eliminate all duplicate elements in a string

Input:abackc

Output:abck

```
#include <stdio.h>
#include<string.h>

int main() {
   char a[50],b[50];
   int n=0;
   printf("Enter the string : ");
   scanf("%s",a);
   for(int i=0;i<strlen(a);i++){
      int x=0;
      for(int j=0;j<strlen(b);j++){
         if(b[j] == a[i]){
            x++;
         }
      }
      if(x==0)
      {
         b[n]=a[i];
         n++;
      }
   }
   printf("%s",b);
   return 0;
}
```

5.Find the character which occurs max and min in string

Input:abbcbce

Output:max=b

min=a,e

```
#include <stdio.h>
#include<string.h>

int main() {
   char a[100],b[50],m[50];
   int c[50];
   int n=0;
   printf("Enter the string : ");
   scanf("%s",a);
   for(int i=0;i<strlen(a);i++){
      int x=0;
      for(int j=0;j<strlen(b);j++){
         if(b[j] == a[i]){
            x++;
         }
      }
      if(x==0)
      {
         b[n]=a[i];
         n++;
      }
   }
   int max=0,mc=0;
   char ma;
   for(int i=0;i<strlen(b);i++){
      int count=0;
      for(int j=0;j<strlen(a);j++){
```

```
            if(b[i]==a[j]){
                count++;
            }
        }
        if(max<count){
            max=count;
            ma=b[i];
        }
        if(count == 1){
            m[mc]=b[i];
            mc++;
        }
    }
    printf("\n%c occurs maximun of %d times",ma,max);
    printf("\n");
    for(int i=0;i<strlen(m);i++){
        printf("%c,",m[i]);
    }
    printf("occurs minimun of 1 time");
    return 0;
}
```