Execise 1:

```
#include<stdio.h>
#include<string.h>
#include<ctype.h>
int main()
{
      char s[50];
      int i,vol=0,con=0,dig=0,sp=0;
      printf("Enter the strings :");
      gets(s);
      for(i=0;s[i]!='\0';i++)
      {
          s[i]=toupper(s[i]);
          if(s[i]>=65 && s[i]<=90)
          {
             if(s[i]=='A'||s[i]=='E'==s[i]=='I'||s[i]=='O'|| s[i]=='U')
                   vol++;
             else
                  con++;
          }
         else if(s[i]>='0' && s[i]<='9')
              dig++;
         else
              sp++;

        }
        printf("\nTotal no of vowel =%d",vol);
       printf("\nTotal no of Consonant =%d",con);
       printf("\nTotal no of Digits =%d",dig);
       printf("\nTotal no of Special Charecter =%d",sp);
}
```

Exercise 2:

```
#include<stdio.h>
#include<string.h>
#include<ctype.h>
int main()
{
      char s[50];
      int i,j,l;
      printf("Enter the strings :");
      gets(s);
      l=strlen(s);
      for(i=0,j=l-1;i<l/2;i++,j--)
      {
           if(toupper(s[i])!=toupper(s[j]))
           break;
      }
      if(i==l/2)
      printf("\n%s is a pallindrome",s);
      else
      printf("\n%s is not a pallindrome",s);
}
```

Execise 3:

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

main()
{
      char name[100];
      int i,j;
      printf("\nEnter ur full name: ");
      gets(name);

      printf("%c",toupper(name[0]));

      for(i=1; name[i] != '\0'; i++)
      {
            if(name[i] == ' ')
            {
                  printf(".%c",toupper(name[i+1]));
                  j = i+2;
            }
      }
      for(;name[j] != '\0'; j++)
            printf("%c",name[j]);
}
```

Execise 4:
Function to find the length of a string.

```
#include<stdio.h>
int strlength();
int main()
{
      char s[50];
      int l;
      printf("Enter the string");
      gets(s);
      l=strlength(s);
      printf("Length of string is %d",l);
      return(0);
}
      int strlength(char *s)
      {
            int i=0;
            while(*s!='\0')
            {
                  i++;
                  s++;
            }
            return(i);
      }
```

Function to Copy string from another string.

```
#include<stdio.h>
#include<string.h>
void strcopy(char *,char *);
int main()
{
      char s[50],t[50];
      printf("Enter the string");
      gets(s);
      strcpy(t,s);
      printf("Copy of the given string is %s",t);
      return(0);
}
      void strcopy(char *t,char*s)
      {
            while(*s!='\0')
            {
                  *t=*s;
                  s++;
                  t++;
            }
            *t='\0';
}
```

Function to compare two srting whether they are identical or not.

```
#include<stdio.h>
int strcomp(char *,char *);
int main()
{
      char a[50],b[50];
      int i;
      printf("Enter 1st  string :");
      gets(a);
       printf("Enter 2nd string :");
         gets(b);
      i=strcomp(a,b);
      if (i==0)

            printf("The strings are equal");
      else
            printf("The strings are unequal");
}
int strcomp(char *a,char *b)
{

            while(*a!='\0' || *b!='\0')
            {

                  if(*a!=*b)
                  return(*a-*b);
                  a++;
```

```
                b++;
            }

      return(0);
}
```

Function to concatenate /merge two strings.

```
#include<stdio.h>
void xstrcat(char *,char *);
int main()
{
      char a[50],b[50];
      printf("Enter 1st string");
      gets(a);
      printf("Enter 2nd string");
      gets(b);
      xstrcat(a,b);
      printf("Merged string is %s",a);
      return(0);
}
      void xstrcat(char *a,char *b)
      {
            while(*a!='\0')
                  a++;
            while(*b!='\0')
            {
                  *a=*b;
                  a++;
                  b++;
            }
            *a='\0';
      }
```