1 write a program to perform the following operation on string(using user defined functions)

1 Length of string
2 Compare two string
3 Copy one string into another
4 join two string into one
5 reverse the given string
6 check is the string is present in another string
7 convert the given string into upper case and lower case.

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

void getlength(char*);
void comparestring(char*,char*);
void copyonetodiff(char*,char*);
void joinstring(char*,char*);
void reverse(char*);
void check(char*,char*);
void convertUandL(char*);
void main()
{
   int ch;
   printf("\n  Menu  \n 1 Length of string \n 2 Compare two string \n 3 Copy one string into another \n 4
join two string into one \n 5 reverse the given string \n 6 check is the string is present in another string
\n 7 convert the given string into upper case and lower case. \n choose any one :    ");
   scanf("%d",&ch);
   if(ch==1)
   {
      printf("\n  Length of string   " );
      char str[20];
      printf("\n  enter the string here:  " );
      scanf("%s",str);
      printf("Your name is %s", str);
      getlength(str);

   }else{
      if (ch==2)
      {
         printf("\n Compare two string ");
         char str[20] ,strt[20];
         printf("\n  enter 1st  string here:  " );
         scanf("%s",str);
```

```
   printf("\n  enter 2nd string here:  " );
   scanf("%s",strt);
   //printf("Your name is %s", str);
   comparestring(str,strt);
}else{
   if(ch==3)
   {

      printf("\n Copy one string into another");
      printf("\n Compare two string ");
   char str[20] ,strt[20];
   printf("\n  enter 1st  string here:  " );
   scanf("%s",str);
   printf("\n  enter 2nd string here:  " );
   scanf("%s",strt);
      copyonetodiff(str,strt);

   }else{
      if(ch==4)
      {
         printf("\n join two string into one");

   char str[50] ,strt[50];
   printf("\n  enter 1st  string here:  " );
   scanf("%s",str);
   printf("\n  enter 2nd string here:  " );
   scanf("%s",strt);
         joinstring(str,strt);
      }else{
         if(ch==5)
         {
            printf("\n reverse the given string");
            char str[20];
printf("\n  enter the string here:  " );
scanf("%s",str);
            reverse(str);
         }else{
            if(ch==6)
            {
               printf("\n check is the string is present in another string");
               char str[20] ,strt[20];
   printf("\n  enter 1st  string here:  " );
```

```
        scanf("%s",str);
        printf("\n  enter 2nd string here:  " );
        scanf("%s",strt);
                  check(str,strt);
                }else{
                   if (ch==7)
                   {
                      printf("\n convert the given string into upper case and lower case");
                      char str[20];
                       printf("\n  enter the string here:  " );
                      scanf("%s",str);
                      convertUandL(str);
                   }else{
                      printf("invalid option");
                   }

                }
              }
            }
          }
      }

   }

}

void getlength(char* str)
{
   int p;
   p = strlen(str);
   printf("Length of string  is %d.",p);
}

void comparestring(char* str ,char*strt)
{ int result;
   result = strcmp(str, strt);
   printf("\n if string is equal then give 0 otherwise 1");
  printf("strcmp(str, strt) = %d\n", result);
}

void copyonetodiff(char* str ,char* strt)
{
```

```
   printf("\n 1 string is %s",str);
    printf("\n 2 string is %s",strt);
   strcpy(strt, str);
   printf("\n 2 string now :  %s",strt);
}

void joinstring(char* str,char*strt)
{
    strcat(str, strt);
     printf("\n 1 string is %s",str);
      printf("\n 2 string is %s",strt);
}

void reverse(char* str )
{
strrev(str);
printf("now reverse string is %s",str);
}

void check(char* str ,char*strt)
{
char* result;
 result=strstr(str,strt);
printf("The substring starting from the given string: %s", result);
}

void convertUandL(char* str)
{
strlwr(str);
   printf("\n string is lowercase %s",str);
   strupr(str);
   printf("\n string is uppercase %s",str);
}
```

2 create a structure book with data members as bname,id,author,price,
accept the values of all these member from user and display them.

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

struct book
```

```
{
char bname[20];
int id;
char author[20];
int price;
};

struct book billfun(struct book* ,int);
void main()
{
   struct book b[5];
     billfun(b,5);
   int i;
   for(i=0;i<5;i++)
   {
      printf("\n Book Number : %d",i);
      printf("\nbook name is : %s ",b[i].bname);
      printf("\nbook id is : %d ",b[i].id);
      printf("\nbook author is : %s ",b[i].author);
      printf("\nbook price is : %d ",b[i].price);
      printf("\n");
   }
}

struct book billfun(struct book* b,int t)
{
   int i;
   for(i=0;i<t;i++)
   {
      printf("enter book name : ");
      scanf("%s",b[i].bname);
      printf("book id is :  ");
      scanf("%d",&b[i].id);
      printf("book author is :  ");
      scanf("%s",b[i].author);
      printf("book price is : ");
      scanf("%d",&b[i].price);
      printf("\n\n");
   }
}
```

3 create a structure time with data member as hrs ,min, sec accept the values of all these member from user and display them also perform addition of two time variables and display the result. if sec goes beyond 60,carry it to min etc. add a method to convert the given time into sec

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

 struct time
{
   int hours;
   int minutes;
   int seconds;
};

void  main(){

   struct time t1;
   struct time t2;
   struct time temp;
   int h,m,s;
   int ss;
           int p ;
   printf("enter the Hours : ");
   scanf("%d",&t1.hours);
   printf("enter the Minutes : ");
   scanf("%d",&t1.minutes);
   printf("enter the Seconds : ");
   scanf("%d",&t1.seconds);

    printf("enter the Hours : ");
   scanf("%d",&t2.hours);
   printf("enter the Minutes : ");
   scanf("%d",&t2.minutes);
   printf("enter the Seconds : ");
   scanf("%d",&t2.seconds);
   temp.hours=t1.hours+t2.hours;
   temp.minutes=t1.minutes+t2.minutes;
   temp.seconds=t1.seconds+t2.seconds;
  //convert second to minutes
   s = temp.seconds / 60 ;
   ss= temp.seconds %60;
   p = temp.minutes+s;
   //display
```

```
   printf("\ntime hours=%d",temp.hours);
   printf("\ntime minutes =%d",p);
   printf("\ntime seconds =%d",ss);
   printf(" hr %d: min  %d : sec %d",temp.hours,p,ss);
}
```

4 write a program to create an array for 10 players. for each player store name ,no. of matches playes ,run ,wickets takes.

a create function to accept the information of each player.

b create function to display the information of all the players

c display the information of player who made maximum runs and the one who took maximum number of wickets

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

struct players
{
   char name[10];
   int matchplay;
   int run;
   int wickets;
};

struct players acceptinfo(struct players* ,int );
void main()
{
   struct players p[10];
   int i;
   acceptinfo(p,10);

   for(i=0;i<10;i++)
   {   printf("\n");
      printf("player info number : %d ", i);
      printf("\nname :  %s ",p[i].name);
      printf("\nmatch play :  %d ",p[i].matchplay);
      printf("\nRun :  %d ",p[i].run);
      printf("\nWickets :  %d ",p[i].wickets);
      printf("\n");
   }
   int max=0;
   for(i=0;i<10;i++)
   {
      if(p[i].run>max)
      {
         max = p[i].run;
      }
   }
```

```
printf("\n******************Max Run******************");
printf("\nmaximum runs is %d",max);
printf("\n*****************************************");
int maxw=0;
for(i=0;i<10;i++)
{
   if(p[i].wickets>maxw)
   {
      maxw = p[i].wickets;
   }
}
printf("\n******************Max Wicket******************");
printf("\nmaximum runs is %d",maxw);
printf("\n*****************************************");

for(i=0;i<10;i++)
{
   if(max==p[i].run)
      {
         printf("\n*****************************************");
      printf("\n player get maximux run ");
      printf("player info number : %d ", i);
      printf("\nname :  %s ",p[i].name);
      printf("\nmatch play :  %d ",p[i].matchplay);
      printf("\nRun :  %d ",p[i].run);
      printf("\nWickets :  %d ",p[i].wickets);
      printf("\n*****************************************");
      printf("\n");

      }
   if(maxw==p[i].wickets)
      {
      printf("\n*****************************************");
      printf("\n player get maximux wicket ");
      printf("player info number : %d ", i);
      printf("\nname :  %s ",p[i].name);
      printf("\nmatch play :  %d ",p[i].matchplay);
      printf("\nRun :  %d ",p[i].run);
      printf("\nWickets :  %d ",p[i].wickets);
      printf("\n*****************************************");
      printf("\n");

      }


}
```

```
}


struct players acceptinfo(struct players* p,int t)
{
   int i;
 for(i=0;i<t;i++)
   {
      printf("\nname :  ");
      scanf("%s",p[i].name);

      printf("\nmatch play :  ");
      scanf("%d",&p[i].matchplay);

      printf("\nRun :  ");
      scanf("%d",&p[i].run);

      printf("\nWickets :  ");
      scanf("%d",&p[i].wickets);
   }

}
```