1.

```
#include<stdio.h>


typedef struct Book {
	int bID;
	char bName[50];
	int price;
	float rating;
	char author[50];


} Book;
void addBook(Book* b,int* flag) {
	printf("How many books you want to add=");
	int n;
	scanf("%d",&n);
	for(int i=*flag; i<n+(*flag); i++) {
		scanf("%d",&b[i].bID);


		scanf("%s",b[i].bName);
		scanf("%d",&b[i].price);
		scanf("%f",&b[i].rating);
		scanf("%s",b[i].author);
	}
	*flag=n+*flag;
}
void display(Book* b,int flag) {
	if(flag==0)
	{
		printf("DATA NOT AVAILABLE!\n");
		return;
	}
```

```
	for(int i=0; i<flag; i++) {
		printf("\n*****************************\n");
		printf("Book Id      =%d\n",b[i].bID);
		printf("Book name    =%s\n",b[i].bName);
		printf("Book price   =%d\n",b[i].price);
		printf("Book Rating  =%.1f\n",b[i].rating);
		printf("Book author  =%s\n\n",b[i].author);
		printf("\n*****************************\n");
	}
}

void main() {

	Book B[100];
	int flag=0;
	while(1) {
		printf("1.Add Book\n2.Display Book\n3.Retun \nEnter Your choise=");
		int c;
		scanf("%d",&c);
		switch(c) {
			case 1:
				addBook(B,&flag);
				break;

			case 2:
				display(B,flag);
				break;

			case 3:
				return;
```

```
                default:
                        printf("\nPlease enter valid choise!");

                }
        }
}
```

2.

```
#include<stdio.h>

typedef struct Time {
        float hr,min,sec;
}Time;
void setTime(Time* t) {
        printf("Enter time in hr:min:sec format\n");
        scanf("%f",&t->hr);
        scanf("%f",&t->min);
        scanf("%f",&t->sec);
}
void getTime(Time t) {
        printf("Time=(%.2f):(%.2f):(%.2f)\n",t.hr,t.min,t.sec);
}
Time addTime(Time t1,Time t2) {
        Time t;
        t.hr=t1.hr+t2.hr;
        t.min=t1.min+t2.min;
        t.sec=t1.sec+t2.sec;
        if(t.sec>60)
        {
                t.min+=(t.sec-60)/60;
                t.sec=60;
```

```
	}
	if(t.min>60)
	{
		t.hr+=(t.min-60)/60;
		t.min=60;
	}
	return t;

}
void timeToSec(Time t)
{

}
int main() {
	Time t1,t2,t3;

	setTime(&t1);
	getTime(t1);



	setTime(&t2);
	getTime(t2);

	Time t=addTime(t1,t2);
	printf("Addition of two Times=");
	getTime(t);

	timeToSec(t1);



	return 0;
```

```
}
```

3.

```
#include<stdlib.h>
#include<stdio.h>
typedef struct Player {
	int Jnumber;
	char name[20];
	int runs;
	int wickets;
	int matches;
} Player;

void addPlayer(Player* p,int n) {


	for(int i=0; i<n; i++) {
		printf("Enter Players Detailes.\n");
		scanf("%d",&p[i].Jnumber);
		fflush(stdin);
		gets(p[i].name);
		scanf("%d",&p[i].runs);
		scanf("%d",&p[i].wickets);
		scanf("%d",&p[i].matches);

	}

}
void display(Player*p)
{
		printf("\n*************************\n");
```

```
		printf("Jersey number: %d\n",p->Jnumber);
		printf("name:	%s\n",p->name);
		printf("runs:	%d\n",p->runs);
		printf("Wickets:	%d\n",p->wickets);
		printf("Mathces:	%d\n",p->matches);
		printf("\n*************************\n");
}
void displayAll(Player* p,int n) {
	for(int i=0; i<n; i++) {
	 display(&p[i]);
	}

}

void sortedRuns(Player* p,int n) {
	Player runs[n];
	for(int i=0; i<n;i++)
		runs[i]=p[i];

	for(int i=0; i<n-1; i++) {
		for(int j=i+1; j<n;j++) {
			if(runs[i].runs>runs[j].runs) {
				Player temp=runs[i];
				runs[i]=runs[j];
				runs[j]=temp;
			}

		}
	}
   display(&runs[n-1]);
```

```
}

void sortedWickets(Player*p,int n) {
        Player wicket[n];
        for(int i=0; i<n; i++)
                wicket[i]=p[i];

        for(int i=0; i<n-1; i++) {
                for(int j=i+1; j<n;j++) {
                        if(wicket[i].wickets>wicket[j].wickets) {
                                Player temp=wicket[i];
                                wicket[i]=wicket[j];
                                wicket[j]=temp;
                        }

                }
        }
   display(&wicket[n-1]);
}
void main() {
   printf("How many players you want to add?\n");
   int n;
   scanf("%d",&n);
        Player* p=(Player*)malloc(sizeof(Player)*n);

        addPlayer(p,n);
        displayAll(p,n);
        printf("Player with max Runs is =\n");
        sortedRuns(p,n);
        printf("Player with max wickets =\n");
        sortedWickets(p,n);
```

```
}
```

4.

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

int  count=0;
typedef struct product {
	char name[20];
	int price;
	int quantity;

} product;
void addProducts(product*);
void addProducts(product* p) {
	printf("how many products you want to add to cart=\n");
	int n;
	scanf("%d",&n);
	realloc(p,sizeof(product)*(count+n));

	for(int i=count; i<n+count; i++) {
		printf("Add product %d\n",i+1);
		scanf("%s",p[i].name);
		scanf("%d",&p[i].price);
		scanf("%d",&p[i].quantity);
	}
	count=n+count;
}
int countPrice(product* p) {
	int sum=0;
```

```
	for(int i=0; i<count; i++) {
		sum+=p[i].price*p[i].quantity;
	}
	return sum;
}
void main() {
	product* p=(product*)malloc(sizeof(product)*1);
	addProducts(p);
	printf("Total cost of all products=%d\n",countPrice(p));
	while(1) {
		printf("You want to add more products?(y/n)\n");
		char c;
		fflush(stdin);
		c=getchar();
		if(c=='y') {
			addProducts(p);
			printf("Total cost of all products=%d\n",countPrice(p));
		}
		else if(c=='n')
		return;

		else
		printf("Please enter y or n only!\n");

	}
}
```

5.

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

```
int count=0;
typedef struct movie {
	char title[20];
	char director[30];
	int releaseY;
	char genre[10];
} movie;

void addMovie(movie*);
int searchMovie(movie*);
void updateMovie(movie*);
void display(movie*);


void addMovie(movie* m) {

	printf("How many movies you want to add?\n");
	int n;
	scanf("%d",&n);
	//extending the size of movie array structure
	realloc(m,sizeof(m)*n);
	int i=count;
	while(i<count+n) {
		printf("Enter the details of movie %d\n",i+1);
		printf("Enter the title\n");
		fflush(stdin);
		gets(m[i].title);
		printf("Enter director\n");
		fflush(stdin);
		gets(m[i].director);
		printf("Enter Release year \n");
```

```
		scanf("%d",&m[i].releaseY);
		fflush(stdin);
		printf("Enter Genre\n");
		gets(m[i].genre);
		i++;
	}
	count+=n;

}

int searchMovie(movie* m) {
	if(count==0) {
		printf("DATA NOT FOUND! FIRST ADD THE DATA.\n");
		return -1;
	}
	printf("Enter the title of movie=");
	fflush(stdin);
	char ch[20];
	scanf("%s",ch);
	for(int i=0; i<count; i++) {
		if(strcmp(ch,m[i].title)==0) {
			display(&m[i]);
			return i;

		}

	}
	printf("Sorry!Movie Not found.\n");
	return -1;
}
```

```
void updateMovie(movie* m) {
	if(count==0) {
		printf("DATA NOT FOUND! FIRST ADD THE DATA.\n");
		return;
	}
	int j=searchMovie(m);
	if(j!=-1) {

		for(int i=0; i<count; i++) {

				printf("What you want to Update?\n1)Title\n2)Director\n3)Release
year\n4)Genre\n");
				int c;
				scanf("%d",&c);
				switch(c) {
					case 1://title
						printf("Enter new Title");
						fflush(stdin);
						gets(m[i].title);
						display(&m[i]);
						return;
					case 2://director
						printf("Enter new director\n");
						fflush(stdin);
						gets(m[i].director);
						display(&m[i]);
						return;
					case 3://release year
						printf("Enter new Release year \n");
						scanf("%d",&m[i].releaseY);
						fflush(stdin);
```

```
                                        display(&m[i]);
                                        return;
                                case 4://genre
                                        fflush(stdin);
                                        printf("Enter new Genre\n");
                                        gets(m[i].genre);
                                        display(&m[i]);
                                        break;
                                default:
                                        printf("You have entered the wrong choise!\n");
                        }

                }

        }
}
void display(movie*m) {
        printf("\n**********************************\n");
        printf("Movie Name=         %s\n",m->title);
        printf("Movie Director=     %s\n",m->director);
        printf("Movie Release Year=  %d\n",m->releaseY);
        printf("Movie Genre=        %s\n",m->genre);
        printf("\n**********************************\n");
}
void main() {
        movie* m=(movie*)malloc(sizeof(movie)*1);
        while(1) {
                printf("Enter\n1)Add Movie\n2)Search Movie\n3)Update Movie\n");
                int ch;
                scanf("%d",&ch);
                switch(ch) {
```

```
                case 1:
                        addMovie(m);
                        break;
                case 2:
                        searchMovie(m);
                        break;
                case 3:
                        updateMovie(m);
                        break;
                case 4:
                        return;
                default:
                        printf("Please enter valid choise!\n");

        }
    }


}
```