```
3    #include<stdio.h>
4    #include<stdlib.h>
5    #include<string.h>
6    struct car_rent
7    {
8        char car_name[20];
9        int price;
10       struct car_rent *link;
11   };

13   struct car_rent *create(struct car_rent *start);
14   void display (struct car_rent*start);
15   struct car_rent *insert(struct car_rent *start);
16   struct car_rent *del(struct car_rent *start,char car_name[]);
17   struct car_rent *sort (struct car_rent *start);
18   void *search(struct car_rent *start,char car_name[]);
19   struct car_rent *modify(struct car_rent *start,char car_name[]);
20   int i,n;
21   void main()
22   {   char car_name[20];
23       int ch;
24       struct car_rent *start=NULL;
25       while(1)
26       {
27       printf("Enter choice-\n 1) to create\n 2) to display\n 3) to insert\n 4) to delete\n
     5) to sort by price\n 6) to search\n 7) to modify:");
28       scanf("%d",&ch);
29       switch (ch)
30       {
31       case 1:
32           start=create(start);
33           break;
34       case 2:
35           display(start);
36           break;
37       case 3:
38           start=insert(start);
39           break;
40       case 4:
41           printf("Enter car_name you want to delete:");
42           scanf("%s",car_name);
43           start=del(start,car_name);
44           break;
45       case 5:
46           sort(start);
47           break;
48       case 6:
49           printf("Enter car_name you want to search:");
50           scanf("%s",car_name);
51           search(start,car_name);
52           break;
53       case 7:
54           printf("Enter car_name you want to modify:");
55           scanf("%s",car_name);
56           start=modify(start,car_name);
57           break;
58       default:
59           printf("error!");

61       }

63   }}
64   struct car_rent *create(struct car_rent* start)
65   {
66       struct car_rent *p,*temp;

68       printf("Enter no of cars u wanna rent:");
69       scanf("%d",&n);
70       temp=start;
71       for(i=0;i<n;i++)
72        { temp=(struct car_rent*)malloc(sizeof(struct car_rent)*1);
73          printf("enter car name:");
74          scanf("%s",(temp->car_name));
75          printf("enter price:");
76          scanf("%d",&(temp->price));
77       if(start==NULL)
78       {
79        start=temp;
80        temp->link=NULL;
81       }
82     else
83      {
```

```c
 84          p=start;
 85          while(p->link!=NULL)
 86          p=p->link;
 87          p->link=temp;
 88          temp->link=NULL;
 89      }
 90  }
 91  return start;
 92  }
 93  void display (struct car_rent *start)
 94  { struct car_rent *p;
 95      if(start==NULL)
 96      {
 97          printf("\n*Order List is Empty*\n\n");
 98          return;
 99      }
100    p=start;
101    while(p!=NULL)
102      {
103          printf("\ncar_name\tPrice");
104          printf("\n%s\t %d\n",p->car_name,p->price);
105          p=p->link;
106      }
107      printf("\n");
108  }
109  struct car_rent *insert(struct car_rent *start)
110  { int pos;
111    struct car_rent *p,*temp;
112    temp=(struct car_rent*)malloc(sizeof(struct car_rent)*1);
113    printf("Enter location you want to insert:");
114    scanf("%d",&pos);
115      if(pos==1)
116    {
117      printf("enter car name:");
118      scanf("%s",(temp->car_name));
119      printf("enter price:");
120      scanf("%d",&(temp->price));
121      temp->link=start;
122      start=temp;
123      return start;
124    }
125       p=start;
126       for(i=1;i<pos-1 && p!=NULL;i++)
127          p=p->link;
128       if(p==NULL)
129          printf("\n*less no of car_names*\n\n");
130
131      else
132    {    printf("enter car name:");
133          scanf("%s",(temp->car_name));
134          printf("enter price:");
135          scanf("%d",&(temp->price));
136          temp->link=p->link;
137           p->link=temp;
138      }
139    return start;
140  }
141
142  struct car_rent *del(struct car_rent *start,char car_name[])
143  {
144    struct car_rent *temp,*p;
145
146    if(strcmp(start->car_name,car_name)==0)
147    {
148        temp=start;
149        start=temp->link;
150        free(temp);
151        return start;
152    }
153        p=start;
154        while(p->link!=NULL)
155        { if(strcmp(p->link->car_name,car_name)==0)
156            {
157                temp=p->link;
158                p->link=temp->link;
159                free(temp);
160                return start;
161        }
162      p=p->link;
163        }
164        }
165  struct car_rent *sort (struct car_rent *start)
166  {
167      struct car_rent *p,*q,*temp;
```

```
168            temp=(struct car_rent*)malloc(sizeof(struct car_rent)*1);
169            for(p=start;p->link!=NULL;p=p->link)
170            {
171                for(q=p->link;q!=NULL;q=q->link)
172                {
173                if(p->price > q->price)
174                    {
175                        temp->price=p->price;
176                        p->price=q->price;
177                        q->price=temp->price;
178                        strcpy(temp->car_name,p->car_name);
179                        strcpy(p->car_name,q->car_name);
180                        strcpy(q->car_name,temp->car_name);
181                    }
182                }
183            }
184    }
185
186    void *search(struct car_rent *start,char car_name[])
187    {
188        struct car_rent *p;
189        int flag=0;
190            if(strcmp(start->car_name,car_name)==0)
191                {
192            printf("\nCAR_NAME FOUND\n");
193            printf("\nCar_name\tPrice");
194            printf("\n%s\t %d\n",start->car_name,start->price);
195            flag++;
196                }
197
198            p=start;
199            while(p->link!=NULL)
200             {
201                    if(strcmp(p->link->car_name,car_name)==0)
202                {
203                 printf("\nCAR_NAME FOUND\n");
204                 printf("\nCar_name\tPrice");
205                 printf("\n%s\t %d\n",p->link->car_name,p->link->price);
206                }
207                 p=p->link;
208                 flag++;
209             }
210             if(flag==0)
211             printf("\n\nnot found\n\n");
212
213    }
214
215    struct car_rent *modify(struct car_rent *start,char car_name[])
216    {
217        struct car_rent *p;
218        int choice;
219        char ans1,ans2;
220        int flag=0,chw=0;
221        if(strcmp(start->car_name,car_name)==0)
222         {
223            printf("\nCAR_NAME FOUND\n");
224            printf("\nWire_name\tPrice");
225            printf("\n%s\t %d\n",start->car_name,start->price);
226         do
227         {
228            printf("enter:\n 1) to modify Car_types name\n 2) to modify Car price:");
229            scanf("%d",&choice);
230            switch (choice)
231            {
232            case 1:
233             printf("enter new car name:");
234             scanf("%s",(start->car_name));
235             break;
236            case 2:
237             printf("enter new car price:");
238             scanf("%d",&(start->price));
239             break;
240
241            }
242
243            printf("press 1 to continue modifying:");
244            scanf("%d",&chw);
245         }while(chw==1);
246
247                flag++;
248                return start;
249         }
250
251          p=start;
```

```
252          while(p->link!=NULL)
253            {
254                if(strcmp(p->link->car_name,car_name)==0)
255            {
256             printf("\nCAR_NAME FOUND\n");
257             printf("\ncar_name\tPrice");
258             printf("\n%s\t %d\n",p->link->car_name,p->link->price);
259              do
260          {
261             printf("enter:\n 1) to modify car name\n 2) to modify car price:");
262             scanf("%d",&choice);
263           switch (choice)
264            {
265            case 1:
266            printf("enter new car name:");
267            scanf("%s",(p->link->car_name));
268            break;
269            case 2:
270            printf("enter new car price:");
271            scanf("%d",&(p->link->price));
272            break;
273            }
274            printf("press 1 to continue modifying:");
275            scanf("%d",&chw);
276          }
277          while(chw==1);
278        }
279                p=p->link;
280                flag++;
281                return start;
282        }
283          if(flag==0)
284          printf("\n\nnot found\n\n");
285  }
286
287
288
289
290
291  /*
292  OUTPUT
293  Enter choice-
294   1) to create
295   2) to display
296   3) to insert
297   4) to delete
298   5) to sort by price
299   6) to search
300   7) to modify:1
301  Enter no of cars u wanna rent:2
302  enter car name:gg
303  enter price:33
304  enter car name:ww
305  enter price:44
306  Enter choice-
307   1) to create
308   2) to display
309   3) to insert
310   4) to delete
311   5) to sort by price
312   6) to search
313   7) to modify:2
314
315  car_name        Price
316  gg        33
317
318  car_name        Price
319  ww        44
320
321  Enter choice-
322   1) to create
323   2) to display
324   3) to insert
325   4) to delete
326   5) to sort by price
327   6) to search
328   7) to modify:3
329  Enter location you want to insert:1
330  enter car name:ee
331  enter price:55
332  Enter choice-
333   1) to create
334   2) to display
335   3) to insert
```

```
336      4) to delete
337      5) to sort by price
338      6) to search
339      7) to modify:4
340    Enter car_name you want to delete:ee
341    Enter choice-
342     1) to create
343     2) to display
344     3) to insert
345     4) to delete
346     5) to sort by price
347     6) to search
348     7) to modify:5
349    Enter choice-
350     1) to create
351     2) to display
352     3) to insert
353     4) to delete
354     5) to sort by price
355     6) to search
356     7) to modify:5
357    car_name       Price
358    gg        33
359
360    car_name       Price
361    ww        44
362
363    Enter choice-
364     1) to create
365     2) to display
366     3) to insert
367     4) to delete
368     5) to sort by price
369     6) to search
370     7) to modify:6
371    Enter car_name you want to search:gg
372
373    CAR_NAME FOUND
374
375    Car_name       Price
376    gg        33
377    Enter choice-
378     1) to create
379     2) to display
380     3) to insert
381     4) to delete
382     5) to sort by price
383     6) to search
384     7) to modify:7
385    Enter car_name you want to modify:gg
386
387    CAR_NAME FOUND
388
389    Wire_name       Price
390    gg        33
391    enter:
392     1) to modify Car_types name
393     2) to modify Car price:1
394    enter new car name:rr
395    press 1 to continue modifying:1
396    enter:
397     1) to modify Car_types name
398     2) to modify Car price:2
399    enter new car price:66
400    press 1 to continue modifying:0
401    Enter choice-
402     1) to create
403     2) to display
404     3) to insert
405     4) to delete
406     5) to sort by price
407     6) to search
408     7) to modify:2
409
410    car_name       Price
411    rr        66
412
413    car_name       Price
414    ww        44
415    */
416
```