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

struct Vechile //struct for item car and scooter
{
    int  personal_number   ;
    int  rc_number  ;
    char  model [30];
    char  color [30];
    int  time_arrival   ;
    int  time_departure   ;
}array_car  [100];//, array_scooter[100];
int  space_car   = 0;
//int space_scooter = 0;
int  number_car   = 0;
//int number_scooter = 0;



void show_item() //function for showing what you can do with car and scooter
{
    printf ("1 - Add car to park\n");
    printf ("2 - Take car from park\n");
    printf ("3 - Show all car in park\n");
    printf ("0 - Exit\n");
}

void add_car() // function adding car to park
{
    system("cls");

    if (number_car   == space_car  )
    {
        printf ("The park is full\n"    );
        return ;
    }

    printf ("Enter the personal number of car: ");
    scanf ("%i" ,&array_car  [number_car  ].personal_number   );
    printf ("Enter the rc book of car: "      );
    scanf ("%i" ,&array_car  [number_car  ].rc_number  );
    printf ("Enter the model of car: "      );
    scanf ("%s" ,&array_car  [number_car  ].model );
    printf ("Enter the color of car: "      );
    scanf ("%s" ,&array_car  [number_car  ].color );
    printf ("Enter when you arrive in park: ");
    scanf ("%i" ,&array_car  [number_car  ].time_arrival   );
    printf ("Enter when you will depart from park: ");
    scanf ("%i" ,&array_car  [number_car  ].time_departure   );

    number_car  ++;
}


int  compare (char  a[],  char  b[])  // compare two arrays if they are the same
{
    int  i = 0;
    for  (i; i < 20 ; ++i)
    {
        if (a[i] != b[i])
            return  0;
    }
    return  1;
}
void take_car() //function taking car from park(you will have number_car-1)
{
    system("cls");

    if (number_car   == 0)
    {
        printf ("The park is empty!\n");
        return ;
    }

    printf ("Enter number of car which you want to take: ");
    int  number = 0;
    scanf ("%i" ,&number);
```

```
78
79      int i = 0;
80      int index = -1;
81      for (i; i < number_car; ++i)
82      {
83          if (number == array_car[i].personal_number)
84          {
85              index = i;
86              break;
87          }
88      }
89
90      if (index != -1)
91      {
92          printf("You take %ith car\n",index + 1);
93
94          i = index + 1;
95          int n_car = index;
96          for (i; i < number_car; ++i)
97          {
98              array_car[n_car] = array_car[i];
99              n_car++;
100         }
101         number_car--;
102     }
103     else
104     {
105         printf("You enter number of car incorrectly!\n");
106
107         printf("Enter the rc book of car: ");
108         int rc = 0;
109         scanf("%i",&rc);
110         printf("Enter the model of car: ");
111         char mod[20] = {0};
112         scanf("%s",&mod);
113         printf("Enter the color of car: ");
114         char col[20] = {0};
115         scanf("%s",&col);
116
117         int i = 0;
118         int index = -1;
119         for (i; i < number_car; ++i)
120         {
121             if (rc == array_car[i].rc_number &&
122                 compare(mod, array_car[i].model) &&
123                 compare(col, array_car[i].color))
124             {
125                 index = i;
126                 break;
127             }
128         }
129
130         if (index != -1)
131         {
132             printf("You take %ith car\n",index + 1);
133
134             i = index + 1;
135             int n_car = index;
136             for (i; i < number_car; ++i)
137             {
138                 array_car[n_car] = array_car[i];
139                 n_car++;
140             }
141             number_car--;
142         }
143         else
144         {
145             printf("You enter incorrect data! You can\'t take car!\n");
146         }
147     }
148 }
149
150 void show_car() //function for showing all car which you have in park
151 {
152     system("cls");
153
154     if (number_car == 0)
```

```
155         {
156             printf("Park is empty!\n");
157             return;
158         }
159         else
160         if (number_car == 1)
161         {
162             printf("There are 1 car in park:\n");
163         }
164         else
165         {
166             printf("There are %i cars in park:\n", number_car);
167         }
168
169         int i = 0;
170         for (i; i < number_car; ++i)
171         {
172             printf("%d\n",array_car[i].personal_number);
173             printf("%d\n",array_car[i].rc_number);
174             printf("%s\n",array_car[i].model);
175             printf("%s\n",array_car[i].color);
176             printf("%d\n",array_car[i].time_arrival);
177             printf("%d\n",array_car[i].time_departure);
178             printf("\n");
179         }
180     }
181
182
183
184
185     void menu() // general function for take choice
186     {
187         show_item();
188         int choice = 0;
189         scanf("%i",&choice);
190
191
192         switch (choice)
193         {
194             case 1:
195                 add_car();
196                 break;
197             case 2:
198                 take_car();
199                 break;
200             case 3:
201                 show_car();
202                 break;
203             case 0:
204                 return;
205             default:
206                 printf("Bad inputting! try again!\n");
207
208         }
209
210
211         menu();
212     }
213
214     void input_count_vechile() // function for input numbers of...
215     {
216         printf("Input number of free places for car in park: ");
217         scanf("%i",&space_car);
218         //printf("Input number of free places for scooter in park: ");
219         //scanf("%i",&space_scooter);
220
221         menu();
222     }
223
224
225     int main()
226     {
227         input_count_vechile();
228
229
230         return 0;
231     }
```