```c
/* ilk cikti güncellendi */
/*##############################################################*/
/*HW05_HASAN_MEN_131044009_part2.c                              */
/*_____________________________                                 */
/* Olusturan : HASAN MEN  24-Mart-2015                          */
/*                                                              */
/*Tanım                                                         */
/*___________                                                   */
/*onceden tanimli array üzerinde max degeri bulmak,sayi aramak  */
/*gibi türlü türlü islemeleri yapan programcık                  */
/*Girdiler:                                                     */
/*  tum degeler onceden define edildi                           */
/*Ciktilar:                                                     */
/*  fonksiyon sonuclari                                         */
/*##############################################################*/


#include <stdio.h>

#define ARRAYSPACE 10   /* maximum array boyutum */

/* arrayde arama yapmak icin yeni turler    */
/* 0'dan 9'a kadar yerleri kelimelerle berlirtmemizi saglar */
typedef enum {FALSE=0,TRUE=1} bool;

/* fonskiyon prototipleri   */
int max_array(int array[], int n);
int second_max_array(int array[], int n);
int sum_all_array (int array[], int n);
int count_array(int array[], int n, int value);
bool search_array (int array[], int n, int value);


int
main()
{
    /* ana fonksiyon baslangici */
    int array[]={5,12,18,5,6,12,32,1,2,12}; /* 10elemanli array */
    int j,i,zero;       /* sayaclarımız */
    int num1=1,num2=2,num3=7;   /* arrayda aranacak numaralar   */
    /* degiskenlerin sonu */



    printf("++++++++++++++++++++\n");
    printf("My array is => ");

    /* arrayin ekrana basilmasi */
    for(j=0;j<ARRAYSPACE;j++)
    {
        printf("%d ",array[j]);
    }

    /* fonksiyonlardan gelen bilgilere gore ekrana degerlerin basilmasi */
    printf("\n++++++++++++++++++++\n");
    printf("Maximum array is %d\n" ,max_array(array,ARRAYSPACE));
    printf("++++++++++++++++++++\n");
    printf("Maximum second array is %d\n",second_max_array(array,ARRAYSPACE));
    printf("++++++++++++++++++++\n");
    printf("Sum of all array is %d\n",sum_all_array(array,ARRAYSPACE));
    printf("++++++++++++++++++++\n");
    printf("Count of value %2d is %2d\n",num1,count_array(array,ARRAYSPACE,num1));
    printf("Count of value %2d is %2d\n",num2,count_array(array,ARRAYSPACE,num2));
    printf("Count of value %2d is %2d\n",num3,count_array(array,ARRAYSPACE,num3));
    printf("++++++++++++++++++++\n");

    zero=0; /* eger sayi bulunmaz ise sayac ile hata dondurecez*/
    for(i=0;i<ARRAYSPACE;i++)
    {
        if(search_array(array,i,num1))
        {
            printf("%d is at [%d]\n",num1,i);
```

```
73              i=ARRAYSPACE;   /* eger bulunursa donguden kacis saglar */
74          }
75          /* fonksiyon false return ederse sayac artacak */
76          else if(!search_array(array,i,num1))
77          {
78              zero++;
79              /*dongu sonunda bulunmadiysa hata verir*/
80              if(zero==ARRAYSPACE)
81                  printf("Couldn't find %d in array\n",num1);
82          }
83      }
84
85      zero=0;/* eger sayi bulunmaz ise sayac ile hata dondurecez*/
86      for(i=0;i<ARRAYSPACE;i++)
87      {
88
89          if(search_array(array,i,num2))
90          {
91              printf("%d is at [%d]\n",num2,i);
92              i=ARRAYSPACE;   /* eger bulunursa donguden kacis saglar */
93          }
94          /* fonksiyon false return ederse sayac artacak */
95          else if(!search_array(array,i,num2))
96          {
97              zero++;
98              /*dongu sonunda bulunmadiysa hata verir*/
99              if(zero==ARRAYSPACE)
100                 printf("Couldn't find %d in array\n",num2);
101         }
102     }
103
104     zero=0; /* eger sayi bulunmaz ise sayac ile hata dondurecez*/
105     for(i=0;i<ARRAYSPACE;i++)
106     {
107         if(search_array(array,i,num3))
108         {
109             printf("%d is at [%d]\n",num3,i);
110             i=ARRAYSPACE;   /* eger bulunursa donguden kacis saglar */
111         }
112         /* fonksiyon false return ederse sayac artacak */
113         else if(!search_array(array,i,num3))
114         {
115             zero++;
116             /*dongu sonunda bulunmadiysa hata verir*/
117             if(zero==ARRAYSPACE)
118                 printf("Couldn't find %d in array\n",num3);
119         }
120     }
121     return 0;
122     /* ana fonksiyonun sonu */
123 }
124
125 /* arraydeki tum degerleri tarayarak en buyuk olanini return eder*/
126 int max_array(int array[], int n)
127 {
128     int i,max=0;
129     for(i=0;i<n;i++)
130     {
131         if(array[i]>=max)
132             max=array[i];
133     }
134     return max;
135 }
136
137 /* tum degerleri arayarak 2.en buyuk degeri bulur ve return eder*/
138 int second_max_array(int array[], int n)
139 {
140     int i,second_max=0;
141
142     for(i=0;i<n;i++)
143     {
144         if(array[i]>=second_max && array[i]<max_array(array,n))
```

```
145             second_max=array[i];
146     }
147     return second_max;
148 }
149
150 int sum_all_array (int array[], int n)
151 {
152     int i,sum=0;
153     for(i=0;i<n;i++)
154     {
155             sum+=array[i];
156     }
157     return sum;
158 }
159
160 /* aranan degerin arrayde kac defa bulundugunu return eder */
161 int count_array(int array[], int n, int value)
162 {
163     int i,counter=0;
164     for(i=0;i<n;i++)
165     {
166         if(value==array[i])
167             counter++;
168     }
169     return counter;
170 }
171
172 /* arrayde elemanları arar*/
173 bool search_array (int array[], int n, int value)
174 {
175
176     int i;
177
178     for(i=0;i<=n;i++)
179     {
180         if(array[i]==value)
181             return TRUE;
182     }
183     return FALSE;
184 }
185
186 /*  HW05_HASAN_MEN_131044009_part2.c    sonu    */
```