//DAY-4

/\*//1. Complete the following code segment with appropriate C statements

#include <stdio.h>

int main()

{

// array declaration

int arr[10], arr\_size,i;

printf("Enter the number of elements \n");

scanf("%d",&arr\_size);

printf("Enter the array elements \n");

for(i=0;i<arr\_size;i++)

{

scanf("%d",&arr[i]);

}

printf("The elements are \n");

for(i=0;i<arr\_size;i++)

{

printf("%d",arr[i]);

}

printf("\nThe even numbers in the array are\n");

for(i=0;i<arr\_size;i++)

{

if(arr[i]%2==0)

printf("%d\t", arr[i]);

}

return 0;

}

//2. Complete the following program using the tempalte

#include <stdio.h>

void read\_arr(int arr[],int arr\_size);

int print\_arr(int arr[],int arr\_size);

int print\_odd(int arr[],int arr\_size);

int main()

{

// array declaration

int arr[10], arr\_size;

printf("Enter the number of elements\n");

scanf("%d", &arr\_size);

read\_arr(arr, arr\_size);

printf("The array elements are \n");

print\_arr(arr, arr\_size);

printf("The odd elements are\n");

print\_odd(arr, arr\_size);

return 0;

}

void read\_arr(int arr[],int arr\_size)

{

printf("Enter the array elements \n");

for(int i=0;i<arr\_size;i++)

{

scanf("%d",&arr[i]);

}

}

int print\_arr(int arr[],int arr\_size)

{

printf("The elements are \n");

for(int i=0;i<arr\_size;i++)

{

printf("%d",arr[i]);

}

}

int print\_odd(int arr[],int arr\_size)

{

printf("\nThe odd numbers in the array are\n");

for(int i=0;i<arr\_size;i++)

{

if(arr[i]%2!=0)

printf("%d\t", arr[i]);

}

}

//3. Complete the following code segment with appropriate C statements

#include <stdio.h>

//function prototypes

void read\_arr(int arr[],int arr\_size);

void print\_arr(int arr[],int arr\_size);

int ret\_max(int arr[],int arr\_size);

int main()

{

// array declaration

int arr[10], arr\_size;

printf("Enter the number of elements \n");

scanf("%d", &arr\_size);

printf("Enter the elements\n");

read\_arr(arr, arr\_size);

printf("The array elements are \n");

print\_arr(arr, arr\_size);

printf("\nThe maximum element in the arrays is %d\n", ret\_max(arr, arr\_size));

return 0;

}

void read\_arr(int arr[],int arr\_size)

{

for(int i=0;i<arr\_size;i++)

{

scanf("%d",&arr[i]);

}

}

void print\_arr(int arr[],int arr\_size)

{

for(int i=0;i<arr\_size;i++)

{

printf("%d\t",arr[i]);

}

}

int ret\_max(int arr[],int arr\_size)

{

int max=arr[0];

for(int i=0;i<arr\_size;i++)

if(max<arr[i])

max=arr[i];

return max;

}

/\*4. Write a C program to search a specified element in array of random elements.

if the search is successful then, the program should display the following

1. Search is successful

2. the position of first occurance

3. the position of the last occurance \*/

/\*

#include<stdio.h>

int main()

{

int arr[10], arr\_size,i,key,end=-1,start=-1;

printf("Enter the number of elements \n");

scanf("%d",&arr\_size);

printf("Enter the array elements \n");

for(i=0;i<arr\_size;i++)

{

scanf("%d",&arr[i]);

}

printf("Enter the element to be searched:\n");

scanf("%d",&key);

for(i=0;i<arr\_size;i++)

{

if(arr[i]==key)

{

if(start==-1)

{

start=i;

}

end=i;

}

}

if (start == -1)

{

printf("search is unsuccessful\n");

}

else

{

printf("Search is successful\n");

printf("The position of the first occuracne of the key is %d\n",start+1);

printf("The position of the last occuracne of the key is %d\n",end+1);

}

}\*/

//5.Program of Sorting of elements in an array

#include<stdio.h>

int main()

{

int a[10], n,i,pos,j,temp;

printf("Enter the number of elements \n");

scanf("%d",&n);

printf("Enter the array elements \n");

for(i=0;i<n;i++)

{

scanf("%d",&a[i]);

}

for(i=0;i<n-1;i++)

{

pos=i;

for(j=i+1;j<n;j++)

{

if(a[pos]>a[j])

pos=j;

}

temp=a[i];

a[i]=a[pos];

a[pos]=temp;

}

printf("Sorted Array elements are:\n");

for(int i=0;i<n;i++)

{

printf("%d\t",a[i]);

}

}