

Assignment 14

1. Write a program to calculate the sum of numbers stored in an array of size 10. Take array values from the user.

```
#include<stdio.h>
int main()
{
    int arr[10],i,sum = 0;
    printf("Enter array 10 elements ");
    for (i = 0; i <= 9; i++)
    {
        scanf("%d",&arr[i]);
    }
    for (i = 0; i <= 9; i++)
    {
        sum = sum + arr[i];
    }
    printf("sum of numbers stored in an array %d ",sum);
}
```

2. Write a program to calculate the average of numbers stored in an array of size 10. Take array values from the user.

```
#include<stdio.h>
int main()
{
    int arr[10],i;
    float avg=0;
    printf("Enter array 10 elements ");
    for (i = 0; i <= 9; i++)
    {
        scanf("%d",&arr[i]);
    }
    for (i = 0; i <= 9; i++)
    {
        avg = avg + arr[i];
    }
    printf("average of numbers stored in an array %f",avg/10.0);
}
```

3. Write a program to calculate the sum of all even numbers and sum of all odd numbers, which are stored in an array of size 10. Take array values from the user.

```
#include<stdio.h>
int main()
{
    int arr[10],i,even=0,odd=0;
    printf("Enter array 10 elements ");
    for (i = 0; i <= 9; i++)
```

```

{
    scanf("%d",&arr[i]);
}
for (i = 0; i <= 9; i++)
{
    if (arr[i]%2==0)
        even = even + arr[i];
    else
        odd = odd + arr[i];
}
printf("sum of all even numbers %d",even);
printf("sum of all odd numbers %d",odd);
}

```

4. Write a program to find the greatest number stored in an array of size 10. Take array values from the user.

```

#include<stdio.h>
int main()
{
    int arr[10],i,max=0;
    printf("Enter array 10 elements ");
    for (i = 0; i <= 9; i++)
    {
        scanf("%d",&arr[i]);
    }
    max = arr[0];
    for (i = 0; i <= 9; i++)
    {
        if (max <= arr[i])
            max = arr[i];
    }
    printf("greatest number stored in an array %d",max);
}

```

5. Write a program to find the smallest number stored in an array of size 10. Take array values from the user.

```

#include<stdio.h>
int main()
{
    int arr[10],i,max=0;
    printf("Enter array 10 elements ");
    for (i = 0; i <= 9; i++)
    {
        scanf("%d",&arr[i]);
    }
    max = arr[0];
    for (i = 0; i <= 9; i++)
    {
        if (max >= arr[i])

```

```

        max = arr[i];
    }
    printf("smallest number stored in an array %d",max);
}

```

6. Write a program to sort elements of an array of size 10. Take array values from the user.

```

#include<stdio.h>
int main()
{
    int a[10],i,j,t;
    printf("enter 10 array element:");
    for(i=0; i<10; i++)
    {
        scanf("%d",&a[i]);
    }
    printf("before sorting our array elements: ");
    for(i=0; i<10; i++)
    {
        printf("%d ",a[i]);
    }
    printf("\nafter sorting our array elements: ");
    for(i=0; i<10; i++)
    {
        for(j=i+1; j<10; j++)
        {
            if(a[i]>a[j])
            {
                t=a[i];
                a[i]=a[j];
                a[j]=t;
            }
        }
    }
    for(i=0; i<10; i++)
    {
        printf("%d ",a[i]);
    }
}

```

7. Write a program to find second largest in an array. Take array values from the user.

```

#include<stdio.h>
int main()
{
    int a[5],i,j,temp,sec_largest=0;
    printf("enter 5 array element:");
    for(i=0; i<5; i++)
    {
        scanf("%d",&a[i]);
    }
}

```

```

for(i=0; i<5; i++)
{
    for(j=i+1; j<5; j++)
    {
        if(a[i]>a[j])
        {
            temp=a[i];
            a[i]=a[j];
            a[j]=temp;
        }
    }
    sec_largest = a[i-1];
}
printf("Second largest of our in array %d",sec_largest);
return 0;
}

```

8. Write a program to find the second smallest number in an array. Take array values from the user.

```

#include<stdio.h>
int main()
{
    int a[5],i,j,temp,sec_smallest=0;
    printf("enter 5 array element:");
    for(i=0; i<5; i++)
    {
        scanf("%d",&a[i]);
    }
    for(i=0; i<5; i++)
    {
        for(j=i+1; j<5; j++)
        {
            if(a[i]<a[j])
            {
                temp=a[i];
                a[i]=a[j];
                a[j]=temp;
            }
        }
        sec_smallest = a[i-1];
    }
    printf("Second smallest of our in array %d",sec_smallest);
    return 0;
}

```

9. Write a program in C to read n number of values in an array and display it in reverse order. Take array values from the user.

```

#include<stdio.h>
int main()
{

```

```

int n=5,arr[n],i;
printf("Enter a number ");
scanf("%d",&n);
printf("Enter array elements ");
for (i = 0; i < n; i++)
{
    scanf("%d",&arr[i]);
}
printf("Before reverse our array elements is: ");
for (i = 0; i < n; i++)
{
    printf("%d ",arr[i]);
}
printf("\nafter reverse our array elements is: ");
for (i = n-1; i >= 0; i--)
{
    printf("%d ",arr[i]);
}
}

```

10. Write a program in C to copy the elements of one array into another array. Take array values from the user.

```

#include<stdio.h>
int main()
{
    int n,arr[5], copy[5], i;
    // printf("Enter a number ");
    // scanf("%d",&n);
    printf("Enter array elements ");
    for (i = 0; i <= 4; i++)
    {
        scanf("%d",&arr[i]);
    }
    printf("Copy array elements is: ");
    for(i = 0; i <= 4; i++)
    {
        copy[i] = arr[i];
        printf("%d ",copy[i]);
    }
}

```