

Assignment=14

Array Problems In C.

1.write a c program to calculate the sum of numbers stored in an array of size 10 and take array values from the user.

```
#include <stdio.h>
int main()
{
    int x[10],i,sum=0;
    printf("\nEnter Numbers :");
    for(i=0;i<10;i++)
    {
        scanf("%d",&x[i]);
        sum=sum+x[i];
    }
    printf("\n total sum is %d",sum);
    return 0;
}
```

2. write a c 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 x[10],i;
    float sum=0.0;
    printf("\nEnter Numbers :");
    for(i=0;i<10;i++)
    {
        scanf("%d",&x[i]);
        sum=(float)sum+x[i]/(10.0);
    }
    printf("\n total sum is %.2f",sum);
    return 0;
}
```

3. write a program to calculate the sum of all even number and all odd number stored in array in which the size of the array is 10 ,the value is given by the user.

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

```

int a[10],i,odd=0,even=0;
printf("\nEnter Number :");
for(i=0;i<10;i++)
{
    scanf("%d",&a[i]);
    if(a[i]%2)
        odd+=a[i];
    else
        even+=a[i];
}
printf("\n sum of all even number in the array is %d",even);
printf("\n sum of all odd number in the array is %d",odd);
return 0;
}

```

4.write a program to find the greatest in 10 numbers stored in array .

```

#include <stdio.h>
int main()
{
    int x[10],i,j,sum=0;
    printf("\nEnter Number:");
    for(i=0;i<10;i++)
    {
        scanf("%d",&x[i]);
        if(x[i]>x[i+1])
        {
            if(x[i]>sum)
                sum=x[i];
        }
        else if(x[i+1]>sum)
            sum=x[i+1];
    }
    printf("Greatest Number is %d",sum);
    return 0;
}

```

5.write a program to find the smallest among 10 numbers stored in array numbers entered by the user.

```

#include <stdio.h>
int main()
{
    int x[10],sum,i;
    printf("\nEnter Number:");
    for(i=0;i<10;i++)
    {

```

```

        scanf("%d",&x[i]);
    }
    sum=x[0];
    for(i=0;i<10;i++)
    {
        if(x[i]<sum)
            sum=x[i];
    }
    printf("Smallest Number is %d",sum);
}

```

6. write a program to sort elements of an array of size 10. enterd values by the user.

```

#include <stdio.h>
int main()
{
    int x[10],i,sum,j,temp;
    printf("\n Enter the 10 Number of Elements to be stored in an Array:\n");
    for(i=0;i<10;i++)
    {
        scanf("%d ",&x[i]);
    }
    for(i=0;i<9;i++)
    {
        for(j=0;j<9;j++)
        {
            if(x[j]>x[j+1])
            {
                temp=x[j+1];
                x[j+1]=x[j];
                x[j]=temp;
            }
        }
    }
    printf("\n After sorting the Elements are:");
    for(i=0;i<10;i++)
    printf("\n %d",x[i]);
    return 0;
}

```

7.write a program to reverse a given elements of an array elements entered by the user .

```

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

```

```

    int x[100],i;
    printf("\nEnter the Size of an Array:");
    printf("\nEnter Numbers:");
    for(i=0;i<10;i++)
    {
        scanf("%d",&x[i]);
    }
    printf("\nAfter Reversing the Elements are :");
    for(i=9;i>=0;i--)
    printf("\n%d",x[i]);
    return 0;
}

```

8. write a program to find second smallest value in the array.values entered by the user

```

#include <stdio.h>
int main()
{
    int x[100],i,sum,j,temp,n;
    printf("\nEnter The Size of an Array :");
    scanf("%d",&n);
    printf("\n Enter the  Number of Elements to be stored in an Array:\n");
    for(i=0;i<n;i++)
    {
        scanf("%d",&x[i]);
    }
    for(i=0;i<n-1;i++)
    {
        for(j=0;j<n-1;j++)
        {
            if(x[j]>x[j+1])
            {
                temp=x[j+1];
                x[j+1]=x[j];
                x[j]=temp;
            }
        }
    }
    printf("\n second smallest Element is: ");
    printf("\n %d",x[1]);
    return 0;
}

```

9.write a program to find second largest value in the array.values entered by the user

```

#include <stdio.h>
int main()
{
    int x[100],i,sum,j,temp,n;
    printf("\nEnter The Size of an Array :");
    scanf("%d",&n);
    printf("\n Enter the  Number of Elements to be stored in an Array:\n");
    for(i=0;i<n;i++)
    {
        scanf("%d",&x[i]);
    }
    for(i=0;i<n-1;i++)
    {
        for(j=0;j<n-1;j++)
        {
            if(x[j]<x[j+1])
            {
                temp=x[j];
                x[j]=x[j+1];
                x[j+1]=temp;
            }
        }
    }
    printf("\n Second Largest Element is: ");
    printf("\n %d",x[1]);
    return 0;
}

```

10. write a program to copy one array elements to the second array.value Entered by the user.

```

#include <stdio.h>
int main()
{
    int x[100],y[100],n,i;
    printf("\nEnter the Size of an Array :");
    scanf("%d",&n);
    printf("\nEnter the array Elements :");
    for(i=0;i<n;i++)
    scanf("%d",&x[i]);
    printf("\nAfter copying the second array Elements are : ");
    for(i=0;i<n;i++)
    {
        y[i]=x[i];
        printf("\n%d",y[i]);
    }
    return 0;
}

```

}