---1-D ARRAYS USING FUNCTIONS---

1. WAP to find average of array elements.

```
#include<stdio.h>
#include<conio.h>

void input( int [ ] , int);
void display(int [ ], int);
float average(int [ ], int);
int main(){
        int a[100], size;
        float avg;
        printf("Enter the size of array:");
        scanf("%d", &size);
        input(a, size);
        printf("\nThe Array Elements are:\n");
        display(a, size);
        avg=average(a, size);
        printf("\nThe Average is:%f\n", avg);

   getch();
   return 0;
}

void input( int a[ ] , int n){
        int i;
        for(i=0;i<n; i++){
                printf("Enter a[%d] element:",i);
                scanf("%d", &a[i]);

        }
}

void display( int a[ ] , int n){
        int i;
        for(i=0;i<n; i++){
                printf("%d\t",a[i]);

        }
}
```

```
float average(int a[ ], int n){
        int i, Avg, sum=0;
        for(i=0;i<n;i++){
                sum=sum+a[i];
        }
        Avg=(float)sum/n;
        return Avg;
}
```

2. WAP to find Maximum and minimum number in an array.

```
#include<stdio.h>
#include<conio.h>

void input( int [ ] , int);
void display(int [ ], int);
int maximum(int [ ], int);
int minimum(int [ ], int);
int main(){
        int a[100], size, max, min;
        printf("Enter the size of array:");
        scanf("%d", &size);
        input(a, size);
        printf("\nThe Array Elements are:\n");
        display(a, size);
        max=maximum(a, size);
        printf("\nThe Maximum element is:%d\n", max);
        min=minimum(a, size);
        printf("\nThe Minimum element is:%d\n", min);
   getch();
   return 0;
}
void input( int a[ ] , int n){
        int i;
        for(i=0;i<n; i++){
                printf("Enter a[%d] element:",i);
                scanf("%d", &a[i]);
        }
}
```

```
void display( int a[ ] , int n){
        int i;
        for(i=0;i<n; i++){
                printf("%d\t",a[i]);

        }
}
int maximum(int a[ ], int n){
        int i, Max=a[0];

        for(i=0;i<n;i++){
                if(a[i]>Max){
                        Max=a[i];
                }
        }

        return Max;
}
int minimum(int a[ ], int n){
        int i, Min=a[0];

        for(i=0;i<n;i++){
                if(a[i]<Min){
                        Min=a[i];
                }
        }

        return Min;
}
```

3. ***WAP to copy one array to another in reverse order.***

```
#include<stdio.h>
#include<conio.h>

void input( int [ ] , int);
void display(int [ ], int);
void copy(int [ ], int [ ], int);

int main(){

        int a[100], b[100], size;
        printf("Enter the size of array:");
```

```
        scanf("%d", &size);
        input(a, size);
        printf("\nThe Array Elements are of A are:\n");
        display(a, size);
        copy(a, b, size);
        printf("\nThe Array Elements are of B are:\n");
        display(b, size);
    getch();
    return 0;
}

void input( int a[ ] , int n){
        int i;
        for(i=0;i<n; i++){
                printf("Enter a[%d] element:",i);
                scanf("%d", &a[i]);

        }
}

void display( int a[ ] , int n){
        int i;
        for(i=0;i<n; i++){
                printf("%d\t",a[i]);

        }
}

void copy(int a[ ], int b[ ], int n){
        int i;
        for(i=n-1; i>=0; i--){
                b[n-i-1]=a[i];
        }
}
```

4. WAP to Add two arrays.

```
#include<stdio.h>
#include<conio.h>

void input( int [ ] , int);
void display(int [ ], int);
void addition(int[ ], int [ ], int [], int);
```

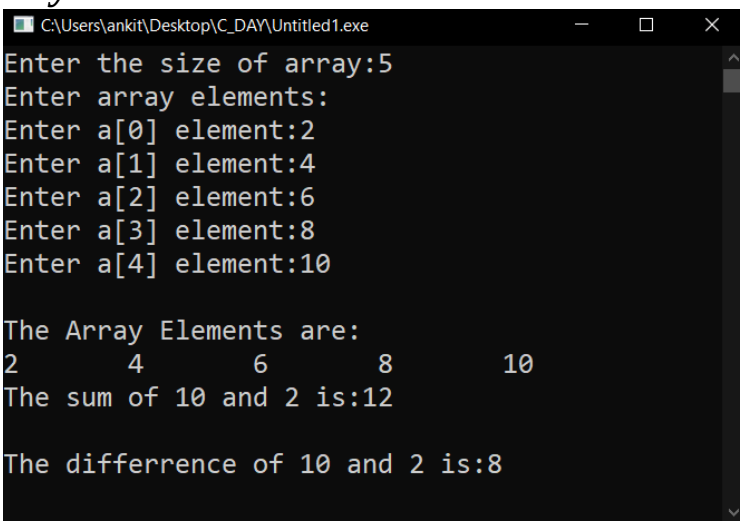
```
int main(){
        int a[100], b[100], c[100], size;
        printf("Enter the size of array:");
        scanf("%d", &size);
        printf("Enter First array A:\n");
        input(a, size);
        printf("Enter Second array B:\n");
        input(b, size);
        printf("\nThe First Array Elements are:\n");
        display(a, size);
        printf("\nThe Second Array Elements are:\n");
        display(b, size);
        printf("\nThe Added Array Elements are:\n");
        addition(a, b, c, size);
        display(c, size);
   getch();
   return 0;
}

void input( int a[ ] , int n){
        int i;
        for(i=0;i<n; i++){
                printf("Enter %d element:",i);
                scanf("%d", &a[i]);
        }
}

void display( int a[ ] , int n){
        int i;
        for(i=0;i<n; i++){
                printf("%d\t",a[i]);
        }
}

void addition( int a[ ] , int b[ ],  int c[ ], int n){
        int i;
        for(i=0;i<n; i++){
                c[i]=a[i] + b[i];
        }
}
```

5. *WAP to find sum and difference of maximum and minimum Number in an array.*




```
#include<stdio.h>
#include<conio.h>

void input( int[ ] , int);
void display(int[ ] , int);
void sum_diff(int[ ], int);

int main(){
        int a[100], size;
        printf("Enter the size of array:");
        scanf("%d", &size);
        printf("Enter array elements:\n");
        input(a, size);
        printf("\nThe Array Elements are:\n");
        display(a, size);
        sum_diff (a, size);

   getch();
   return 0;
}

void input( int a[ ] , int n){
        int i;
        for(i=0;i<n; i++){
                printf("Enter a[%d] element:",i);
                scanf("%d", &a[i]);
        }
}
```

```
void display( int a[ ] , int n){
        int i;
        for(i=0;i<n; i++){
                printf("%d\t",  a[i]);
        }
}



void sum_diff(int a[ ], int n){

        int i, max=a[0], min=a[0];

        for(i=0;i<n; i++){
                if(a[i]>max){
                        max = a[i];
                }
                else if(a[i] < min){
                        min= a[i];
                }
        }
        printf("\nThe sum of %d and %d is:%d\n", max, min, max+min);
        printf("\nThe differrence of %d and %d is:%d\n", max, min, max-min);
}
```

6. *WAP to find sum of prime numbers in an array.*

```
#include<stdio.h>
#include<conio.h>

void input( int [] , int);
void display(int [ ] , int);
void sum_prime(int[ ] , int);

int main(){
        int a[100], size;
        printf("Enter the size of array:");
        scanf("%d", &size);
        printf("Enter array elements:\n");
        input(a, size);
        printf("\nThe Array Elements are:\n");
        display(a, size);
        sum_prime (a, size);
```

```
    getch();
    return 0;
}

void input( int a[ ] , int n){
        int i;
        for(i=0;i<n; i++){
                printf("Enter a[%d] element:",i);
                scanf("%d", &a[i]);
        }
}

void display( int a[ ] , int n){
        int i;
        for(i=0;i<n; i++){
                printf("%d\t", a[i]);
        }
}

void sum_prime(int a[ ], int n){
        int i,j, factor, sum=0;
        for(i=0;i<n; i++){
                factor=0;
                for(j=1; j<=a[i]; j++){
                        if(a[i]%j==0){
                                factor++;
                        }
                }
                if(factor==2){
                        sum=sum + a[i];
                }
        }
        printf("\nThe Sum of Prime Number is %d ", sum);
}
```