1. Find maximum and minimum element of array? (with dynamic in main)

```
#include<stdio.h>
#include<stdlib.h>
void main()
{
                                int s,i;
                                int mm[20];
                                int* b;
                                        int min =mm[0] ;
                                int max=mm[0] ;
                                 printf("how many array u want  :   ");
                                scanf("%d",&s);

                                b = (int*)malloc(s*sizeof(int));

                                 for(i=0;i<s;i++)
                                {
                                        printf("\nEnter the %d) value :   ",i);
                                        scanf("%d",&mm[i]);
                                }


                                        for(i=0;i<s;i++)
                                {
                                        if(mm[i]>max)
                                        {
                                                max=mm[i];
                                        }
                                }
                printf("max number is : %d \n",max);


                                for(i=0;i<s;i++)
                                {
                                        if(mm[i]<min)
                                        {
                                                min=mm[i];
                                        }

                                }
                                printf("minimum number is : %d \n",min);




}
```

1. Find maximum and minimum element of array?(with dynamic and function type 4)

```
#include<stdio.h>
#include<stdlib.h>
int* max(int*,int);
int* min(int*,int);
void main()
{
                                        int s,i;
                                        int mm[20];
                                        int* p;
                                        int c;
                                        p = (int*)malloc(s*sizeof(int));
                                        printf("how many number you enter :   ");
                                        scanf("%d",&s);

                                         for(i=0;i<s;i++)
                                        {
                                                printf("\nEnter the %d) value :   ",i);
                                                scanf("%d",&mm[i]);
                                        }
                                        printf("\n what u want to choose:  \n1 Max     \n2 Min \n type here :
");
                                        scanf("%d",&c);

                                        if(c == 1)
                                        {
                                        p = max(mm,s);
                                        printf ("value is %d ",p);
                                        }
                                        else
                                        {
                                        if(c == 2)
                                                {
                                                p = min(mm,s);
                                                        printf("value is %d", p);
                                                } else
                                                 {
                                                        printf("\n not valid ");
                                                }

                                        }

}

int* max(int* mm,int s)
{
        int i;
```

```
	int max=mm[0] ;
		for(i=0;i<s;i++)
				{
					if(mm[i]>max)
					{
						max=mm[i];
					}
				}
		//		printf("max number is : %d \n",max);
		return max;
}

int* min(int* pp , int t)
{
	int i;
	int min= pp[0];
					for(i=0;i<t;i++)
				{
					if(pp[i]<min)
					{
						min = pp[i];
					}
				}
			//	printf("minimum number is : %d \n",min);
		return min;
}
```

2. Accept the element of array from user and sum all the element ?(dynamic array with function type4)

```
#include <stdio.h>
int*  add(int* ,int );
void main()
{
	int* a;
	int ans;
	int i;
	int n;
	printf("enter the array size : ");
	scanf("%d",&n);
	a =(int*)malloc(n*sizeof(int));

	for(i=0;i<n;++i)
	{
		printf("\nEnter number a[%d] :  " ,i);
		scanf("%d",&a[i]);
```

```
        }

ans = add(a,n);
 printf("\n All value in array addition is : %d ",ans);
 }

 int* add(int* a,int t )
 {
  int ans;
        int i;
  for(i=0;i<t;++i)
  {
                ans = ans  + a[i];

  }
        //printf("Addition is :  %d \n",ans );
        return ans;
 }
```

2. Accept the element of array from user and sum all the element ?(dynamic array only main)

```
#include <stdio.h>
void main()
{
        int* a;
        int ans;
        int i;
        int n;
        printf("enter the array size : ");
        scanf("%d",&n);
        a =(int*)malloc(n*sizeof(int));

        for(i=0;i<n;++i)
        {
                printf("\nEnter number a[%d] :  " ,i);
                scanf("%d",&a[i]);

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

 }

  printf("\n All value in array addition is : %d ",ans);
 }
```

3.Find all odd or even number from array? (with main function)

```
#include <stdio.h>
#include <stdlib.h>
void main()
{           int i;
            int* a;
            //int* b;
            int n;
            printf("enter the arry size : ");
            scanf("%d",&n);
                        a = (int*)malloc(n*sizeof(int));
            for(i=0;i<n;i++)
            {
                        printf("enter the value of a[%d] : ",i);
                        scanf("%d",&a[i]);
            }
            printf("\n Result is:  ");
            for(i=0;i<n;i++)
            {
             printf("\nEven numbers in the array are :  ");
      for (i = 0; i < n; i++)
      {
         if (a[i] % 2 == 0)
         {
            printf("%d \t", a[i]);
         }
      }

      printf("\n Odd numbers in the array are : ");
      for (i = 0; i <n; i++)
      {
         if (a[i] % 2 != 0)
         {
            printf("%d \t", a[i]);
         }
      }

            }
}
```

3.Find all odd or even number from array? (dynamic type3 function)

```
#include <stdio.h>
#include<stdlib.h>
void* oddeven(int*,int);
void main()
{           int i;
```

```
        int* arr;
        int a;
        int s;
        printf("how many number you enter :   ");
                                scanf("%d",&s);
                        arr =(int*)malloc(s*sizeof(int));
                                for(i=0;i<s;i++)
                                {
                                        printf("\nEnter the %d) value :   ",i);
                                        scanf("%d",&arr[i]);
                                }

        a = oddeven(arr,s);

}

void* oddeven(int* arr,int t)
{
        int i;


                for(i=0;i<t;i++)
        {
         printf("\nEven numbers in the array are :     ");
    for (i = 0; i < t; i++)
    {
      if (arr[i] % 2 == 0)
      {
         printf("%d \t", arr[i]);

      }
    }

    printf("\n Odd numbers in the array are :     ");
    for (i = 0; i <t; i++)
    {
      if (arr[i] % 2 != 0)
      {
         printf("%d \t", arr[i]);

                        }
    }

        }
}
```

4. Find all prime number in array (dynamic with function type 3)

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

```
#include<stdlib.h>
void* prime(int* ,int );
void main()
{
	int* arr;
	int i,s;
	printf("how many number you enter :   ");
				scanf("%d",&s);
		arr = (int*)malloc(s*sizeof(int));
				 for(i=0;i<s;i++)
				{
					printf("\nEnter the %d) value :   ",i);
					scanf("%d",&arr[i]);
				}


	prime(arr,s);
}

void* prime(int* arr ,int s )
{
	int i;

		for(i=0;i<s;i++)
	{
				int j=2;
		int flag = 1 ;
			  while (j < arr[i]) {
			   if (arr[i] % j == 0) {
			      flag = 0;
			      break;
			   }
			   j++;
			}
			if (flag == 1) {
			   printf("\tPrime number is :  %d \n", arr[i]);
			}
				else{

					printf("\tNon-prime is:  %d \n",arr[i]);
				}
			}
}
```

4. Find all prime number in array (dynamic with main only)

```
#include <stdio.h>
#include<stdlib.h>
void main()
```

```
{
        int* arr;
        int i,s;
        printf("how many number you enter :   ");
                                scanf("%d",&s);
            arr = (int*)malloc(s*sizeof(int));
                                for(i=0;i<s;i++)
                                {
                                        printf("\nEnter the %d) value :   ",i);
                                        scanf("%d",&arr[i]);
                                }
            for(i=0;i<s;i++)
        {
                                int j=2;
            int flag = 1 ;
                              while (j < arr[i]) {
                               if (arr[i] % j == 0) {
                                  flag = 0;
                                  break;
                               }
                               j++;
                            }
                            if (flag == 1) {
                               printf("\tPrime number is :  %d \n", arr[i]);
                            }
                                  else{

                                        printf("\tNon-prime is:  %d \n",arr[i]);
                                  }
                        }


}
```

5 Create two arryas of integers. Add following Method
a. Accept the data for an array.
b. Display data of the array.
c. summation of two array.
(dynamic with function type 3)

```
#include<stdio.h>
#include<stdlib.h>
void* sumation(int* , int* , int* ,int);

void main()
{
        int* arr;
        int* brr;
        int* crr;
```

```
	int ans;
	int i,s;
	printf("how many number you enter :   ");
                                    scanf("%d",&s);
		arr = (int*)malloc(s*sizeof(int));
		brr = (int*)malloc(s*sizeof(int));
		crr = (int*)malloc(s*sizeof(int));
	printf("\n Array 1 :  Enter the any two value for addtion :  ");

	for(i=0;i<s;i++)
	{
			printf("\nEnter %d number   :  ",i);
			scanf("%d",&arr[i]);
			ans = ans  + arr[i];
	}
	printf("\n Array 1 :  value is here \n");

	for(i=0;i<s;i++)
	{
			printf("\n arr[%d] :  %d  \n",i,arr[i]);
	}

	printf("\n Array 2 :  value is here \n");

	for(i=0;i<s;i++)
	{
			printf("\nEnter %d number   :  ",i);
			scanf("%d",&brr[i]);
			ans = ans  + brr[i];
	}

	for(i=0;i<s;i++)
	{
			printf("\n brr[%d] :  %d  \n",i,brr[i]);
	}

	sumation(arr,brr,crr,s)   ;

}




void* sumation(int* arr, int* brr, int* crr ,int t)
{
	int i;

	printf("\n summation of array is: \n");
```

```
        for(i=0;i<t;i++)
   {
                        crr[i] = arr[i] + brr[i];
                        printf("\n c[%d] : %d \n",i,crr[i]);
        }
}
```

5 Create two arryas of integers. Add following Method

a. Accept the data for an array.

b. Display data of the array.

c. summation of two array.

(dynamic with main only)

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

void main()
{
        int* arr;
        int* brr;
        int* crr;
        int ans;
        int i,s;
        printf("how many number you enter :   ");
                                scanf("%d",&s);
            arr = (int*)malloc(s*sizeof(int));
            brr = (int*)malloc(s*sizeof(int));
            crr = (int*)malloc(s*sizeof(int));
        printf("\n Array 1 :  Enter the any two value for addtion :  ");

        for(i=0;i<s;i++)
        {
                        printf("\nEnter %d number   :  ",i);
                        scanf("%d",&arr[i]);
                        ans = ans  + arr[i];
        }
        printf("\n Array 1 :  value is here \n");

        for(i=0;i<s;i++)
        {
                        printf("\n arr[%d] :  %d  \n",i,arr[i]);
        }

        printf("\n Array 2 :  value is here \n");

        for(i=0;i<s;i++)
        {
                        printf("\nEnter %d number   :  ",i);
                        scanf("%d",&brr[i]);
```

```
                        ans = ans  + brr[i];
        }

        for(i=0;i<s;i++)
        {
                        printf("\n brr[%d] :  %d  \n",i,brr[i]);
        }

        printf("\n summation of array is: \n");

        for(i=0;i<s;i++)
  {
                        crr[i] = arr[i] + brr[i];
                        printf("\n c[%d] : %d \n",i,crr[i]);
        }

}
```

6. Write program to create an array of integers and perform following operations on that array like finding the sum,average,maximum and minimum number in that array.accept the number of the array from user.
(dynamic with main)

```
#include <stdio.h>
#include <stdio.h>
void main ()
{
        int in[5];
        int i;
        int a[1];
        int m;
        int ans;
        printf("\t Menu is \n 1  Sum    \n 2  Max and  min     \n 3  avg    \n ");
        scanf("%d",&m);


        if(m==1){
                                        int* a;
                                        int ans;
                                        int i;
                                        int n;
                                        printf("enter the array size : ");
                                        scanf("%d",&n);
                                        a =(int*)malloc(n*sizeof(int));

                                        for(i=0;i<n;++i)
                                        {
                                                printf("\nEnter number a[%d] :  " ,i);
                                                scanf("%d",&a[i]);
```

```
                                        }

                                        for(i=0;i<n;++i)
                                         {
                                                        ans = ans  + a[i];

                                         }


                                                                        printf("\n All value in array
addition is : %d ",ans);

        }
        else
        {
         if(m==2){

                        int s,i;
                                int mm[20];
                                int* p;
                                int c;
                                p = (int*)malloc(s*sizeof(int));
                                printf("how many number you enter :   ");
                                scanf("%d",&s);

                                 for(i=0;i<s;i++)
                                {
                                        printf("\nEnter the %d) value :   ",i);
                                        scanf("%d",&mm[i]);
                                }
                                printf("\n what u want to choose:  \n1 Max     \n2 Min \n type here :
");
                                scanf("%d",&c);

                                if(c == 1)
                                {
                                int max=mm[0] ;
                                        for(i=0;i<s;i++)
                                {
                                        if(mm[i]>max)
                                        {
                                                max=mm[i];
                                        }
                                }
                        printf("max number is : %d \n",max);

                                }
```

```
                    else
                    {
                    if(c == 2)
                            {
                    int min= mm[0];
                            for(i=0;i<s;i++)
                    {
                            if(mm[i]<min)
                            {
                                    min = mm[i];
                            }
                    }
                    printf("minimum number is : %d \n",min);
                            } else
                             {
                                    printf("\n not valid ");
                            }

                    }


}else
        {
        if(m==3){
                                    int* arr;

                                     int i, n;
                                     int avv;
                                            int sum=0, avg;

                                     printf("how many number u will enter : ");
                                     scanf("%d", &n);

                            arr =(int*)malloc(n*sizeof(int));

                                     for(i=0; i<n; i++)
                                     {
                                              printf("\nEnter %d numbers:  ",i);
                                      scanf("%d",&arr[i]);
                                     }



                                     for(i=0; i< n; i++)
                                     {
                                      sum = sum + arr[i];
                                     }
```

```
                                                avg = sum/n;


                                                printf("Sum is %d\n", sum);
                                                printf("Average is %d", avg);



                }else{
                        printf("\n invalid option ");
                }

        }

}
}
```

6. Write program to create an array of integers and perform following operations on that array like finding the sum,average,maximum and minimum number in that array.accept the number of the array from user.
(dynamic with function type4)

```
#include <stdio.h>
#include <stdio.h>
int*  add(int* ,int );
int* max(int*,int);
int* min(int*,int);
int* avg(int*, int);

void main ()
{
        int in[5];
        int i;
        int a[1];
        int m;
        int ans;
        printf("\t Menu is \n 1  Sum    \n 2  Max and  min     \n 3  avg    \n ");
        scanf("%d",&m);


        if(m==1){
                                        int* a;
                                        int ans;
                                        int i;
                                        int n;
                                        printf("enter the array size : ");
                                        scanf("%d",&n);
                                        a =(int*)malloc(n*sizeof(int));
```

```
                    for(i=0;i<n;++i)
                    {
                        printf("\nEnter number a[%d] :  " ,i);
                        scanf("%d",&a[i]);

                    }

                ans = add(a,n);
                 printf("\n All value in array addition is : %d ",ans);

        }
        else
        {
         if(m==2){

                int s,i;
                    int mm[20];
                    int* p;
                    int c;
                    p = (int*)malloc(s*sizeof(int));
                    printf("how many number you enter :   ");
                    scanf("%d",&s);

                     for(i=0;i<s;i++)
                    {
                        printf("\nEnter the %d) value :   ",i);
                        scanf("%d",&mm[i]);
                    }
                    printf("\n what u want to choose:  \n1 Max     \n2 Min \n type here :
");
                    scanf("%d",&c);

                    if(c == 1)
                    {
                    p = max(mm,s);
                    printf ("value is %d ",p);
                    }
                    else
                    {
                    if(c == 2)
                        {
                        p = min(mm,s);
                            printf("value is %d", p);
                        } else
                         {
                            printf("\n not valid ");
                        }
```

```
                                        }


        }else
                {
                if(m==3){
                                                int* arr;

                                                 int i, n;
                                                 int avv;

                                                 printf("how many number u will enter : ");
                                                 scanf("%d", &n);

                                            arr =(int*)malloc(n*sizeof(int));

                                                 for(i=0; i<n; i++)
                                                 {
                                                        printf("\nEnter %d numbers:  ",i);
                                                  scanf("%d",&arr[i]);
                                                 }

                                                avv = avg(arr,n);
                                                printf("Average is : %d ",avv);



                }else{
                        printf("\n invalid option ");
                }

        }

 }
}




 int* add(int* a,int t )
 {
  int ans;
        int i;
  for(i=0;i<t;++i)
  {
                ans = ans  + a[i];
```

```
 }
        //printf("Addition is :  %d \n",ans );
        return ans;
}



int* max(int* mm,int s)
{
        int i;
        int max=mm[0] ;
                for(i=0;i<s;i++)
                                {
                                        if(mm[i]>max)
                                        {
                                                max=mm[i];
                                        }
                                }
                //              printf("max number is : %d \n",max);
                return max;
}

int* min(int* pp , int t)
{
        int i;
        int min= pp[0];
                                        for(i=0;i<t;i++)
                                {
                                        if(pp[i]<min)
                                        {
                                                min = pp[i];
                                        }
                                }
                        //      printf("minimum number is : %d \n",min);
                return min;
}




int* avg(int* arr, int n)
{

                                                int sum=0, avg;
                                                 int i;
                                                 for(i=0; i< n; i++)
```

```
                                        {
                                         sum = sum + arr[i];
                                        }


                                        avg = sum/n;

                                return avg;

}
```

7.searching number (dynamic with main)

```
#include<stdio.h>
#include<stdlib.h>
void main()
{
        int* a;
        int n;
        int i;
        int num;
        printf("enter the arry number : ");
        scanf("%d",&n);

        a=(int*)malloc(n*sizeof(int));
        for(i=0;i<n;i++)
        {
                printf("enter the array value of a[%d] :  ",i);
                scanf("%d",&a[i]);
        }
        printf("array value is : ");
                for(i=0;i<n;i++)
        {
                printf("\t  %d ",a[i]);

        }

         printf("\n\nEnter the number u want to search:  ");
                 scanf("%d",&num);
                 for(i=0;i<num;i++)
                 {
                        if(a[i]==num)
                         {
                                printf("\nNumber found : %d  ",a[i]);
                         }else{
```

```
                                printf("\n not found ");
                                break;
                        }
                }

}
```

7.searching number (dynamic with function type 4)

```
#include<stdio.h>
#include<stdlib.h>
int* search(int*,int);
void main()
{
        int* app;
        int f;
        int n;
        int i;
        printf("enter the arry number : ");
        scanf("%d",&n);

        app=(int*)malloc(n*sizeof(int));
        for(i=0;i<n;i++)
        {
                printf("enter the array value of a[%d] :  ",i);
                scanf("%d",&app[i]);
        }
        printf("array value is : ");
                for(i=0;i<n;i++)
        {
                printf("\t  %d ",app[i]);

        }

f = search(app,n);
printf(" And number is : %d ",f);
}

int* search(int* arr, int t)
{
        int num;
        int i;
                        printf("\n\nEnter the number u want to search:  ");
                scanf("%d",&num);
                for(i=0;i<t;i++)
                {
```

```
                        if(num==arr[i])
                        {
                                printf("\nNumber found   ");
                        return num;

                        }

                }
}
```