Assignment 12

1. //Max number in array

```
int main()
{
        int *ptr;
        ptr = (int*)malloc(sizeof(int)*3);
        int i;
        for(i=0; i<3; i++){
                printf("Enter the value:");
                scanf("%d", &ptr[i]);
        }
        max(ptr);
                min(ptr);
}
void min(int *ptr){
        int min = ptr[0];
        int i;
for(i =1; i<3; i++){
        if(ptr[i]<min){
                min = ptr[i];
        }
}
printf("Min :%d\n",min);
}

void max(int *ptr){
        int max = ptr[0];
        int i;
for(i =1; i<3; i++){
        if(ptr[i]>max){
                max = ptr[i];
        }
}
printf("Max :%d",max);
}
```

2. // Search the given number in array.

```
int main()
{
        int *ptr;
   ptr = (int*)malloc(sizeof(int)*5);
   ptr[0] = 23;
   ptr[1] = 56;
   ptr[2] = 78;
   ptr[3] = 96;
```

```
   ptr[4] = 57;
        int num;
        printf("Enter a number :");
        scanf("%d", &num);

        search(ptr, num);
}
void search(int *arr, int num){
        int i, flag = 0;
        for(i=0; i<5; i++){
                if(arr[i]==num){
                flag = 1;
                break;
                }

        }
        if(flag == 0)
        printf("Number not found");
        else
        printf("Number found at %d index", i);
}
```

3. // Find sum of all numbers.

```
int main()
{
        int *ptr;
   ptr = (int*)malloc(sizeof(int)*5);
   int i;
        for(i=0; i<5; i++){
                printf("Enter the value:");
                scanf("%d", &ptr[i]);
        }

        sum(ptr);

}
void sum(int *arr){

        int i, sum=0;
        for(i=0; i<5; i++){
                sum = sum + arr[i];
        }printf("%d", sum);
}
```

4. //Even odd using array

```
int main()
```

```
{
        int *ptr;
   ptr = (int*)malloc(sizeof(int)*5);
        printf("Enter 1st value: ");
        scanf("%d", &ptr[0]);
        printf("Enter 2nd value: ");
        scanf("%d", &ptr[1]);
        printf("Enter 3rd value: ");
        scanf("%d", &ptr[2]);
        printf("Enter 4th value: ");
        scanf("%d", &ptr[3]);
        printf("Enter 5th value: ");
        scanf("%d", &ptr[4]);

   even(ptr);
   odd(ptr);
}

void even(int *arr){
        printf("even: ");
        int i;
        for(i=0; i<5;i++ ){
                if(arr[i]%2==0){
                        printf(" %d", arr[i]);
                }
                }
}
void odd(int *arr){
                printf("\nodd:");
                int j;
        for(j=0; j<5; j++){
                if(arr[j]%2!=0){
                        printf(" %d", arr[j]);
        }
        }
}
```

5. //Print alternate elements in array.

```
int main()
{
        int *ptr;
   ptr = (int*)malloc(sizeof(int)*5);
   int i;
        for(i=0; i<5; i++){
                printf("Enter the value:");
```

```
                scanf("%d", &ptr[i]);
        }

        alternate(ptr);
}

void alternate(int*arr){
        int i;
        for(i=0; i<5; i = i+2){
                printf(" %d", arr[i]);
        }
}
```

6. //Accept array and print only prime numbers of array.

```
int main()
{
        int *ptr;
   ptr = (int*)malloc(sizeof(int)*6);
   int i;
        for(i=0; i<6; i++){
                printf("Enter the value:");
                scanf("%d", &ptr[i]);
        }

        prime(ptr);

}
void prime(int*arr){
        int i, flag = 0;

        for(i=0; i<6; i++){

                if(arr[i]==1 || arr[i]==0)
        {
                flag = 1;

        }
                int j;
                for(j=2; j<arr[i]; j++){
                        flag =0;

                        if(arr[i]%j==0){

                                flag = 1;
```

```
                        break;

                    }
                }if(flag == 0){
                printf(" %d", arr[i]);
        }

        }
}
```

7. //Take two array and add sum in third array

```
int main()
{
        int *ptr1;
   ptr1 = (int*)malloc(sizeof(int)*5);
   int i;
        for(i=0; i<5; i++){
                printf("Enter the value:");
                scanf("%d", &ptr1[i]);
        }
        int *ptr2;
   ptr2 = (int*)malloc(sizeof(int)*5);

        for(i=0; i<5; i++){
                printf("Enter the value:");
                scanf("%d", &ptr2[i]);
        }
        int *ptr3;
   ptr3 = (int*)malloc(sizeof(int)*5);

        printf("ptr3[5]= {");

   sum(ptr1, ptr2, ptr3);
}
void sum(int*arr, int*brr, int*crr){


        int i;
        for(i=0; i<5; i++){
                int j;
                for(j=0; j<5; j++){
                        if(i==j){
                                crr[5] = arr[i] + brr[j];
                printf(" %d,", crr[5]);
                        }
```

```
                }
        }
        printf("\b}");
}
```

8. // Merge two arrays

```
int main()
{
        int *ptr1;
   ptr1 = (int*)malloc(sizeof(int)*5);
   int i;
        for(i=0; i<5; i++){
                printf("Enter the value:");
                scanf("%d", &ptr1[i]);
        }
        int *ptr2;
   ptr2 = (int*)malloc(sizeof(int)*5);

        for(i=0; i<5; i++){
                printf("Enter the value:");
                scanf("%d", &ptr2[i]);
        }
        int *ptr3;
   ptr3 = (int*)malloc(sizeof(int)*10);
   printf("ptr3[10] = {");
        merge(ptr1, ptr2, ptr3);
}
void merge(int*arr, int*brr, int*crr){

        int i;
        for(i=0; i<5; i++){
                crr[i] = arr[i];
        }
        int j;
        for(j=0; j<5; j++){
                crr[j+5] = brr[j];
        }
        int k;
        for(k=0; k<10; k++){
                printf("%d,", crr[k]);
        }
        printf("\b}");
}
```

9. //Reverse the given array.

```
int main()
{
        int *ptr1;
   ptr1 = (int*)malloc(sizeof(int)*5);
   int i;
        for(i=0; i<5; i++){
                printf("Enter the value:");
                scanf("%d", &ptr1[i]);
        }
        printf("rev[5] = {");

        reverse(ptr1);
}
void reverse(int*arr)
{

        printf("rev[5] = {");
        int i;
        for(i=4;i>-1;i--){
                printf("%d,",arr[i]);
        }printf("\b}");
}
```

10.//Sort the array.

```
int main()
{
        int *ptr1;
   ptr1 = (int*)malloc(sizeof(int)*5);
   int i;
        for(i=0; i<5; i++){
                printf("Enter the value:");
                scanf("%d", &ptr1[i]);
        }
        sort(ptr1);
}
void sort(int*arr){
        int i, temp;
        for(i=0; i<4; i++){
                int j;
                for(j=0; j<4; j++){
                        if(arr[j]>arr[j+1]){
                                temp = arr[j];
                                arr[j] = arr[j+1];
                                arr[j+1] = temp;
```

```
                        }
                }
        }
        for(i=0; i<5; i++){
                printf(" %d", arr[i]);
        }
}
```