Assignment Lab7

Q1 Write a C Program that takes an user input array and prints the sum of its elements.

Input: {1,2,3,4,5,6,7,8,9}

Output: 45

```c
PFlab > lab7 > C q1.c > ⊘ main(void)
1    #include<stdio.h>
2    int main(void)
3    {
4        int n, sum = 0;
5        printf("Enter the number of values: ");
6        scanf("%d",&n);
7        int num[n];
8        for(int i=0;i<n;i++)
9        {
10           scanf("%d",&num[i]);
11       }
12       for(int i=0;i<n;i++)
13       {
14           sum += num[i];
15       }
16       printf("The sum is: %d",sum);
17
18       return 0;
19   }
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   SEARCH ERROR   SQL HISTORY   TASK MONITOR

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```
PS C:\UNI ASSIGNMENT\pflab\lab7> .\q1
Enter the number of values: 9
1
2
3
4
5
6
7
8
9
The sum is: 45
```

Q2 Write a program in C to read n number of values in an array and display it in reverse order

Input: {1,2,3,4,5,6,7,8,9}

Output: 9 8 7 6 5 4 3 2 1

```
PFlab > lab7 > C lab7q2.c > ⊘ main(void)
  1    #include<stdio.h>
  2    int main(void)
  3    {
  4        int n;
  5        printf("Enter the number of values: ");
  6        scanf("%d",&n);
  7        int num[n];
  8        for(int i=0;i<n;i++)
  9        {
 10            scanf("%d",&num[i]);
 11        }
 12        printf("\n");
 13        for(int j=n-1;j>=0;j--)
 14        {
 15            printf("%d ",num[j]);
 16        }
 17        return 0;
 18    }
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   SEARCH ERROR   SQL HISTORY   TASK MONITOR

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```
PS C:\UNI ASSIGNMENT\pflab\lab7> .\lab7q2
Enter the number of values: 9
1
2
3
4
5
6
7
8
9

9 8 7 6 5 4 3 2 1
```

Q3 Write a C Program to find the minimum and maximum number in an array.

Input: {4,1,6,8,10,21,8,9,2,6}

Output:
Minimum Number = 1

Maximum Number = 21

```c
PFlab > lab7 > C lab7q3.c > ⦿ main(void)
1    #include<stdio.h>
2    int main(void)
3    {
4        int n, max, min;
5        printf("Enter the number of values: ");
6        scanf("%d",&n);
7        int num[n];
8        for(int i=0;i<n;i++)
9        {
10           scanf("%d",&num[i]);
11       }
12       for(int i=0;i<n;i++)
13       {
14           printf("%d ",num[i]);
15       }
16       printf("\n");
17       max = min = num[0];
18       for(int i=1;i<n;i++)
19       {
20           if(num[i] > max)
21           {
22               max = num[i];
23           }
24           if(num[i] < min)
25           {
26               min = num[i];
27           }
28       }
29       printf("The maximum number is: %d\n",max);
30       printf("The minimum number is: %d",min);
31
32       return 0;
33   }
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**   SEARCH ERROR   SQL HISTORY   TASK MONITOR

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```
4
1
6
8
10
21
8
9
2
6
4 1 6 8 10 21 8 9 2 6
The maximum number is: 21
The minimum number is: 1
```

Q4 Given an array arr[] of size N which contains elements from 0 to N-1, you need to find all
the elements occurring more than once in the given array.

```c
#include<stdio.h>
int main(void)
{
    int n, max, min,c;
    printf("Enter the number of values: ");
    scanf("%d",&n);
    int num[n];
    for(int i=0;i<n;i++)
    {
        scanf("%d",&num[i]);
    }
    for(int i=0;i<n;i++)
    {
        printf("%d ",num[i]);
    }
    printf("\n");
    int rep[n];
    for(int i=0;i<n;i++)
    {
        rep[i] =0;
    }
    for(int i=0;i<n;i++)
    {
        rep[num[i]]++;
    }
    for(int i=0;i<n;i++)
    {
        if(rep[i] > 1)
        {
            printf("number %d is repeated %d\n",i,rep[i]);
        }
    }
    return 0;
}
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   SEARCH ERROR   SQL HISTORY   TASK MONITOR

⌄ TERMINAL

```
Enter the number of values: 5
2
3
1
2
3
2 3 1 2 3
number 2 is repeated 2
number 3 is repeated 2
```