

PF-LAB-7-ASSIGNMENT

PROBLEM:1

```
C prob1.c > ...
1  #include <stdio.h>
2  int main() {
3      int n, sum = 0;
4      printf("Enter the number of elements in the array: \n");
5      scanf("%d", &n);
6      int arr[n];
7      printf("Enter %d elements:\n", n);
8      for(int i = 0; i < n; i++) {
9          scanf("%d", &arr[i]);
10         sum += arr[i];
11     }
12     printf("\nSum of elements: %d\n", sum);
13     return 0;
14 }
15
```

```
D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-7>gcc prob1.c -o prob1.exe
```

```
D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-7>prob1.exe
```

```
Enter the number of elements in the array:
```

```
5
```

```
Enter 5 elements:
```

```
1
```

```
5
```

```
2
```

```
6
```

```
8
```

```
Sum of elements: 22
```

```
D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-7>
```

PROBLEM:2

```
C prob2.c > main()
1  #include <stdio.h>
2  int main() {
3      int n;
4      printf("Enter the number of elements in the array: ");
5      scanf("%d", &n);
6      int arr[n];
7      printf("Enter %d elements:\n", n);
8      for(int i = 0; i < n; i++) {
9          scanf("%d", &arr[i]);
10     }
11     printf("Array in reverse order: ");
12     for(int i = n - 1; i >= 0; i--) {
13         printf("%d ", arr[i]);
14     }
15     printf("\n");
16     return 0;
17 }
```

```
D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-7>gcc prob2.c -o prob2.exe
```

```
D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-7>prob2.exe
```

```
Enter the number of elements in the array: 4
```

```
Enter 4 elements:
```

```
1
```

```
4
```

```
2
```

```
7
```

```
Array in reverse order: 7 2 4 1
```

```
D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-7>
```

PROBLEM:3

```
C prob3.c > main()
1  #include <stdio.h>
2  int main() {
3      int n, min, max;
4      printf("Enter the number of elements in the array: ");
5      scanf("%d", &n);
6      int arr[n];
7      printf("Enter %d elements:\n", n);
8      for(int i = 0; i < n; i++) {
9          scanf("%d", &arr[i]);
10     }
11     printf("Array: ");
12     for(int i=0; i<n; i++) {
13         printf("%d ", arr[i]);
14     }
15     min = max = arr[0];
16     for(int i = 1; i < n; i++) {
17         if(arr[i] < min) {
18             min = arr[i];
19         }
20         if(arr[i] > max) {
21             max = arr[i];
22         }
23     }
24     printf("\nMinimum Number = %d\n", min);
25     printf("Maximum Number = %d\n", max);
26     return 0;
27 }
```

```
D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-7>gcc prob3.c -o prob.exe
```

```
D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-7>prob3.exe
```

```
Enter the number of elements in the array: 6
```

```
Enter 6 elements:
```

```
12
```

```
422
```

```
12
```

```
422
```

```
31
```

```
22
```

```
Array: 12 422 12 422 31 22
```

```
Minimum Number = 12
```

```
Maximum Number = 422
```

```
D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-7>
```

PROBLEM:4

```
1  #include <stdio.h>
2  void main() {
3      int n;
4      int freq[100] = {0};
5      printf("Enter the number of elements in the array: ");
6      scanf("%d", &n);
7      int arr[n];
8      printf("Enter %d elements: \n", n);
9      for(int i=0; i<n; i++) {
10         scanf("%d", &arr[i]);
11         freq[arr[i]]++;
12     }
13     printf("Array: ");
14     for(int i=0; i<n; i++) {
15         printf("%d ", arr[i]);
16     }
17     printf("\nFollowing elements are occurring more than once: ");
18     for(int i = 0; i < 100; i++) {
19         if (freq[i] > 1) {
20             printf("%d ", i);
21         }
22     }
23     printf("\n");
24 }
```

```
D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-7>gcc prob4.c -o prob4.exe
```

```
D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-7>prob4.exe
```

```
Enter the number of elements in the array: 6
```

```
Enter 6 elements:
```

```
2
```

```
5
```

```
1
```

```
5
```

```
9
```

```
2
```

```
Array: 2 5 1 5 9 2
```

```
Following elements are occurring more than once: 2 5
```

```
D:\MY ASSIGNMENTS\PF-LAB-ASSIGNMENT\LAB-7>
```