

Programming Fundamentals

Lab – 7

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BS. Software Eng. - 01B

Q1 – Sum of Elements.

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

● Apples-MacBook-Pro:Lab-07 apple$ gcc -o output 3103-Q1.c && ./output
(1) - Enter Numbers from (1 to 9): 1
(2) - Enter Numbers from (1 to 9): 2
(3) - Enter Numbers from (1 to 9): 3
(4) - Enter Numbers from (1 to 9): 4
(5) - Enter Numbers from (1 to 9): 5
(6) - Enter Numbers from (1 to 9): 6
(7) - Enter Numbers from (1 to 9): 7
(8) - Enter Numbers from (1 to 9): 8
(9) - Enter Numbers from (1 to 9): 9

The sum is: 45
○ Apples-MacBook-Pro:Lab-07 apple$
```

Q2 – Display Array in Reverse Order.

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

● Apples-MacBook-Pro:Lab-07 apple$ gcc -o output 3103-Q2.c && ./output
Enter Numbers from (1 to 9): 1
Enter Numbers from (1 to 9): 2
Enter Numbers from (1 to 9): 3
Enter Numbers from (1 to 9): 4
Enter Numbers from (1 to 9): 5
Enter Numbers from (1 to 9): 6
Enter Numbers from (1 to 9): 7
Enter Numbers from (1 to 9): 8
Enter Numbers from (1 to 9): 9

After reverse order
9
8
7
6
5
4
3
2
1
○ Apples-MacBook-Pro:Lab-07 apple$
```

Q3 – Minimum and Maximum Number in Array.

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
```

● Apples-MacBook-Pro:Lab-07 apple\$ gcc -o output 3103-Q3.c && ./output

Maximum Number in Array is: 21
Minimum Number in Array is: 1

○ Apples-MacBook-Pro:Lab-07 apple\$ █

Q4 – Elements Occurring More than Once.

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS bash
```

● Apples-MacBook-Pro:Lab-07 apple\$ gcc -o output 3103-Q4.c && ./output

Enter the size of the array: 5
Enter Element 0: 2
Enter Element 1: 3
Enter Element 2: 1
Enter Element 3: 2
Enter Element 4: 3

○ Number 2 and 3 occur more than one times in the array.Apples-MacBook-Pro:Lab-07 apple\$ █

Q5 – Number of Vowels and Consonants

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS bash - Lab-07 + v []
```

● Apples-MacBook-Pro:Lab-07 apple\$ gcc -o output 3103-Q5.c && ./output

3103-Q5.c:7:20: warning: format specifies type 'char *' but the argument has type 'char (*)[100]' [-Wformat]
scanf("%99[^\n]", &userStr);

1 warning generated.
Enter a statement: hello
Number of vowels: 2
Number of consonants: 3

○ Apples-MacBook-Pro:Lab-07 apple\$ █

Q6 – Search Item in Array.

Lab-07 > 3103-Q6.C > main()

```
1  #include <stdio.h>
2
3  int main(){
4      int userArray[10] = {1,2,3,4,5,6,7,8,9,10};
5      int searchItem, i;
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

- Apples-MacBook-Pro:Lab-07 apple\$ gcc -o output 3103-Q6.c && ./output
Enter an item to search in the array: 4
Item found at Index: 3
- Apples-MacBook-Pro:Lab-07 apple\$ █

Q7 – Copy Values to Second Array.

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

- Apples-MacBook-Pro:Lab-07 apple\$ gcc -o output 3103-Q7.c && ./output
Enter 5 integers for the first array:
2
3
4
5
6
First array: 2 3 4 5 6
- Second array: 2 3 4 5 6 Apples-MacBook-Pro:Lab-07 apple\$ █

Q8 – Merge Arrays.

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

● Apples-MacBook-Pro:Lab-07 apple$ gcc -o output 3103-Q8.c && ./output
Enter 5 integers for the first array:
1
2
3
4
5
Enter 5 integers for the second array:
6
7
8
9
10
○ Merged array: 1 2 3 4 5 6 7 8 9 10 Apples-MacBook-Pro:Lab-07 apple$ █
```

Q9 – Discard Numeric Characters.

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

● Apples-MacBook-Pro:Lab-07 apple$ gcc -o output 3103-Q9.c && ./output
Enter a string :
hello this is ali123
Filtered string: hello this is ali
○ Apples-MacBook-Pro:Lab-07 apple$ █
```

Q10 – Check Palindrome String

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

● Apples-MacBook-Pro:Lab-07 apple$ gcc -o output 3103-Q10.c && ./output
Enter a string: civic
The string is a palindrome.
● Apples-MacBook-Pro:Lab-07 apple$ gcc -o output 3103-Q10.c && ./output
Enter a string: hello
The string is not a palindrome.
○ Apples-MacBook-Pro:Lab-07 apple$ █
```

Q11 – Count Whitespaces.

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS
```

- Apples-MacBook-Pro:Lab-07 apple\$ gcc -o output 3103-Q11.c && ./output
Enter a string: hello this is ali
Number of whitespace characters: 3
- Apples-MacBook-Pro:Lab-07 apple\$ █

Q12 – Stop Input When Space or Newline

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS
```

- Apples-MacBook-Pro:Lab-07 apple\$ gcc -o output 3103-Q12.c && ./output
Enter a string (stops reading at first space or newline): hello this is ali
The input string is: hello
- Apples-MacBook-Pro:Lab-07 apple\$ █