

Programming Fundamentals

Lab – 4

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BS. Software Eng. - 01B

Q1 – Multiple of 3.

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

- Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q1.c && ./output
Enter any Number: 9
Number is a multiple of three.
- Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q1.c && ./output
Enter any Number: 13
Number is NOT a multiple of three.
- Apples-MacBook-Pro:Lab-04 apple\$ █

Q2 – Calculator.

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

- Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q2.c && ./output
Enter Number 1: 3
Enter Number 2: 12
Enter Operator: + | - | * | / | +
Result: 15.00
- Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q2.c && ./output
Enter Number 1: 4
Enter Number 2: 12
Enter Operator: + | - | * | / | -
Result: -8.00
- Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q2.c && ./output
Enter Number 1: 50
Enter Number 2: 10
Enter Operator: + | - | * | / | /
Result: 5.00
- Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q2.c && ./output
Enter Number 1: 20
Enter Number 2: 3
Enter Operator: + | - | * | / | *
Result: 60.00
- Apples-MacBook-Pro:Lab-04 apple\$ █

Q3 – Character Type Check.

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

● Apples-MacBook-Pro:Lab-04 apple$ gcc -o output 3103-Q3.c && ./output
Enter a character: B
Character is a UpperCase Alphabet
● Apples-MacBook-Pro:Lab-04 apple$ gcc -o output 3103-Q3.c && ./output
Enter a character: a
Character is a LowerCase Alphabet
● Apples-MacBook-Pro:Lab-04 apple$ gcc -o output 3103-Q3.c && ./output
Enter a character: %
Character is a Special Symbol
○ Apples-MacBook-Pro:Lab-04 apple$ █
```

Q4 – Calculate Discount.

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

● Apples-MacBook-Pro:Lab-04 apple$ gcc -o output 3103-Q4.c && ./output
Enter the Cost of items: 1500
You will recieve 5% discount
Original Amount: 1500
Amount after Discount: 1425
Saved Amount: 75
● Apples-MacBook-Pro:Lab-04 apple$ gcc -o output 3103-Q4.c && ./output
Enter the Cost of items: 3000
You will recieve 10% discount
Original Amount: 3000
Amount after Discount: 2700
Saved Amount: 300
● Apples-MacBook-Pro:Lab-04 apple$ gcc -o output 3103-Q4.c && ./output
Enter the Cost of items: 7000
You will recieve 35% discount
Original Amount: 7000
Amount after Discount: 4550
Saved Amount: 2450
● Apples-MacBook-Pro:Lab-04 apple$ gcc -o output 3103-Q4.c && ./output
Enter the Cost of items: 1500
You will recieve 5% discount
Original Amount: 1500
Amount after Discount: 1425
Saved Amount: 75
○ Apples-MacBook-Pro:Lab-04 apple$ █
```

Q5 –Electricity Bill.

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

● Apples-MacBook-Pro:Lab-04 apple$ gcc -o output 3103-Q5.c && ./output

Enter your Customer ID: 1001
Enter your Electricity Units Consumed: 800

Customer ID: 1001
Units Consumed: 800
Amount Charges @35.90/Unit : 28720
Surcharge Amount: 4308
Net Amount Paid by the Customer: 33028.00

○ Apples-MacBook-Pro:Lab-04 apple$ █
```

Q6 – Number to Words.

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

● Apples-MacBook-Pro:Lab-04 apple$ gcc -o output 3103-Q6.c && ./output
Enter a Number: 2
two
● Apples-MacBook-Pro:Lab-04 apple$ gcc -o output 3103-Q6.c && ./output
Enter a Number: 5
five
● Apples-MacBook-Pro:Lab-04 apple$ gcc -o output 3103-Q6.c && ./output
Enter a Number: 9
nine
● Apples-MacBook-Pro:Lab-04 apple$ gcc -o output 3103-Q6.c && ./output
Enter a Number: 11
Greater then Nine (9)

○ Apples-MacBook-Pro:Lab-04 apple$ █
```

Q7 – Assign Grades.

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

● Apples-MacBook-Pro:Lab-04 apple$ gcc -o output 3103-Q7.c && ./output
Enter your score: 95
Your Grade is A
● Apples-MacBook-Pro:Lab-04 apple$ gcc -o output 3103-Q7.c && ./output
Enter your score: 85
Your Grade is B
● Apples-MacBook-Pro:Lab-04 apple$ gcc -o output 3103-Q7.c && ./output
Enter your score: 75
Your Grade is C
● Apples-MacBook-Pro:Lab-04 apple$ gcc -o output 3103-Q7.c && ./output
Enter your score: 65
Your Grade is D
● Apples-MacBook-Pro:Lab-04 apple$ gcc -o output 3103-Q7.c && ./output
Enter your score: 55
You are Fail.
○ Apples-MacBook-Pro:Lab-04 apple$ █
```

Q8 – Even/Odd.

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

● Apples-MacBook-Pro:Lab-04 apple$ gcc -o output 3103-Q8.c && ./output
Enter a number: 23
Number is Odd
● Apples-MacBook-Pro:Lab-04 apple$ gcc -o output 3103-Q8.c && ./output
Enter a number: 12
Number is Even
○ Apples-MacBook-Pro:Lab-04 apple$ █
```

Q9 – Check Leap Year.

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

- Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q9.c && ./output
Enter Year to Check: 2021
2021 is not a leap year.
- Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q9.c && ./output
Enter Year to Check: 2020
2020 is a leap year.
- Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q9.c && ./output
Enter Year to Check: 2024
2024 is a leap year.
- Apples-MacBook-Pro:Lab-04 apple\$ █

Q10 – Weight Cost Calculator.

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

- Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q10.c && ./output
Enter the Weight of Object: 2
The Cost is \$10
- Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q10.c && ./output
Enter the Weight of Object: 5
The Cost is \$10
- Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q10.c && ./output
Enter the Weight of Object: 6
The Cost is \$20
- Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q10.c && ./output
Enter the Weight of Object: 12
The Cost is \$30
- Apples-MacBook-Pro:Lab-04 apple\$ █

Q11 – Temperature.

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

- Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q11.c && ./output
Enter Temperature: 12
The temperature is Cold.
- Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q11.c && ./output
Enter Temperature: 20
The temperature is Warm.
- Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q11.c && ./output
Enter Temperature: 45
The temperature is Hot.
- Apples-MacBook-Pro:Lab-04 apple\$ █

Q12 – Age Group.

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

- Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q12.c && ./output
Enter your Age: 12
You Age Group is Child
- Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q12.c && ./output
Enter your Age: 15
You Age Group is Teenager
- Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q12.c && ./output
Enter your Age: 22
You Age Group is Adult
- Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q12.c && ./output

Enter your Age: 45
You Age Group is Adult
- Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q12.c && ./output
Enter your Age: 76
You Age Group is Senior
- Apples-MacBook-Pro:Lab-04 apple\$ █

Q13 – Check Loan Eligibility.

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

- Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q13.c && ./output
Enter your credit score: 12
You are not eligible for the loan.
- Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q13.c && ./output
Enter your credit score: 650
You may need to provide additional documentation for the loan.
- Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q13.c && ./output
Enter your credit score: 705
You are eligible for the loan.
- Apples-MacBook-Pro:Lab-04 apple\$ █

Q14 – Greetings by Time.

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

- Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q14.c && ./output
Enter the time in 24-hour format (0-24): 2
Good Night
- Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q14.c && ./output
Enter the time in 24-hour format (0-24): 6
Good Morning
- Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q14.c && ./output
Enter the time in 24-hour format (0-24): 12
Good Evening
- Apples-MacBook-Pro:Lab-04 apple\$ █

Q15 – Restaurant Menu And Cost Calculator.

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

● Apples-MacBook-Pro:Lab-04 apple\$ gcc -o output 3103-Q15.c && ./output

Please Select from the Following Menu:

B= Burger

F= French Fries

P= Pizza

S= Sandwich

How many types of Snacks do you want to order: 4

Enter Snack 1: B

Enter the Quantity: 1

Enter Snack 2: F

Enter the Quantity: 2

Enter Snack 3: P

Enter the Quantity: 1

Enter Snack 4: S

Enter the Quantity: 4

You have Ordered!

1 Burger (s) value 200 PKR

2 French Fries (s) value 100 PKR

1 Pizza (s) value 500 PKR

4 Sandwiches (s) value 600 PKR

Total Cost: 1400

○ Apples-MacBook-Pro:Lab-04 apple\$ █