

Name: Muhammad Abu Bakar

Roll Number: 24k-0826

Section: BCS–1D

Week5 – PF Lab

Teacher: Sir Muhammad Aashir

Screenshots

Section-1

Question-1

```
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>gcc PF-Lab-W05-S1-Q1.c -o PF-Lab-W05-S1-Q1.exe
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S1-Q1.exe
Please enter your age:
17
Teenager....

C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S1-Q1.exe
Please enter your age:
44
Adult....

C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S1-Q1.exe
Please enter your age:
4
Child....

C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S1-Q1.exe
Please enter your age:
78
Senior....

C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>
```

Question-2

```
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>gcc PF-Lab-W05-S1-Q2.c -o PF-Lab-W05-S1-Q2.exe
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S1-Q2.exe
Please enter your value:
0
The number is zero....

C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S1-Q2.exe
Please enter your value:
-4
The value is negative....

C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S1-Q2.exe
Please enter your value:
8
The number is positive and even...

C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S1-Q2.exe
Please enter your value:
11
The number is positive and odd....

C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>
```

Section-2

Question-1

```
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>gcc PF-Lab-W05-S2-Q1.c -o PF-Lab-W05-S2-Q1.exe
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S2-Q1.exe
Please enter your number:
45
The entered number is divisible by both 5 and 3...
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S2-Q1.exe
Please enter your number:
0
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S2-Q1.exe
Please enter your number:
30
The entered number is divisible by both 5 and 3...
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S2-Q1.exe
Please enter your number:
10
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S2-Q1.exe
Please enter your number:
9
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>|
```

Question-2

```
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>gcc PF-Lab-W05-S2-Q2.c -o PF-Lab-W05-S2-Q2.exe
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S2-Q2.exe
Please enter your age:
59
Please enter your citizenship P for Pakistani and F for Forigen:
p
You are eligible to vote...
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S2-Q2.exe
Please enter your age:
11
Please enter your citizenship P for Pakistani and F for Forigen:
p
Please wait for a few years to meet the eligibility criteria
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S2-Q2.exe
Please enter your age:
25
Please enter your citizenship P for Pakistani and F for Forigen:
f
If you're not Pakistani be happy, as you're a lucky person, and please only consider voting in your country...
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S2-Q2.exe
Please enter your age:
02
Please enter your citizenship P for Pakistani and F for Forigen:
F
You don't meet either of the criterias...
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>|
```

Section-3

Question-1

```
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>gcc PF-Lab-W05-S3-Q1.c -o PF-Lab-W05-S3-Q1.exe
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S3-Q1.exe
Please enter your 1st number:
6
Please enter your 2nd number:
2
The greater number is the 1st one....

C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S3-Q1.exe
Please enter your 1st number:
3
Please enter your 2nd number:
62
Thew greater number is the 2nd one....

C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S3-Q1.exe
Please enter your 1st number:
7\
Please enter your 2nd number:
The greater number is the 1st one....

C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S3-Q1.exe
Please enter your 1st number:
9
Please enter your 2nd number:
9

C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>|
```

Question-2

```
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>gcc PF-Lab-W05-S3-Q2.c -o PF-Lab-W05-S3-Q2.exe
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S3-Q2.exe
Please enter a number to check for:
23
The number is a positive number....
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S3-Q2.exe
Please enter a number to check for:
-76
The number is a negative number....

C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S3-Q2.exe
Please enter a number to check for:
0
The number is zero....

C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>|
```

Section-4

Question-1

```
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>gcc PF-Lab-W05-S4-Q1.c -o PF-Lab-W05-S4-Q1.exe
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S4-Q1.exe
Please enter your 1st number:
45
Please enter your 2nd number:
32
The swapped 1st number is: 32
The swapped 2nd number is: 45
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>|
```

Question-2

```
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>gcc PF-Lab-W05-S4-Q2.c -o PF-Lab-W05-S4-Q2.exe
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S4-Q2.exe
Please enter your number:
15
The total number of 1's are: 4
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S4-Q2.exe
Please enter your number:
255
The total number of 1's are: 8
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>|
```

(This was not part of the assignment, However I had an idea on how to solve this that's why I went ahead to attempt this)

Section-5

Question-1

```
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>gcc PF-Lab-W05-S5-Q1.c -o PF-Lab-W05-S5-Q1.exe
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S5-Q1.exe
Please enter the year you would like to check the leap year for:
2020
The year 2020 is a leap year
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S5-Q1.exe
Please enter the year you would like to check the leap year for:
1985
The year 1985 is not a leap year...
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>|
```

Question-2

```
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>gcc PF-Lab-W05-S5-Q2.c -o PF-Lab-W05-S5-Q2.exe
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-S5-Q2.exe
Please enter your number:
54123
The sum of the digits composed of the number is: 15
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>|
```

More Problems

Question-1

```
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>gcc PF-Lab-W05-Q1.c -oi PF-Lab-W05-Q1.exe
gcc: error: PF-Lab-W05-Q1.exe: No such file or directory

C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>gcc PF-Lab-W05-Q1.c -o PF-Lab-W05-Q1.exe

C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-Q1.exe
Please enter the first number:
1
Please enter the second number:
2
Please enter the second number:
3
The greatest number is: 3
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-Q1.exe
Please enter the first number:
5
Please enter the second number:
8
Please enter the second number:
6
The greatest number is: 8
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-Q1.exe
Please enter the first number:
9
Please enter the second number:
4
Please enter the second number:
1
The greatest number is: 9

C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>|
```

Question-2

```
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>gcc PF-Lab-W05-Q2.c -o PF-Lab-W05-Q2.exe

C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-Q2.exe
Please enter your attendance in precentage: 57
Unfortunately, due to poor attendance you will not be allowed to sit in the exam and will have to repeat this particular course....
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-Q2.exe
Please enter your attendance in precentage: 80
Please enter your assignment score's average: 90
Please enter your exam results: 99
Your garde is A*...
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-Q2.exe
Please enter your attendance in precentage: 94
Please enter your assignment score's average: 88
Please enter your exam results: 85
Your grade is A...
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-Q2.exe
Please enter your attendance in precentage: 89
Please enter your assignment score's average: 73
Please enter your exam results: 77
Your grade is B...
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-Q2.exe
Please enter your attendance in precentage: 100
Please enter your assignment score's average: 61
Please enter your exam results: 68
Your grade is C...
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-Q2.exe
Please enter your attendance in precentage: 84
Please enter your assignment score's average: 55
Please enter your exam results: 59
Your grade is D...
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>|
```


Question-3

```
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>gcc PF-Lab-W05-Q3.c -o PF-Lab-W05-Q3.exe
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-Q3.exe
please enter a character you would like to encrypt:
8
The encrypted version of this character is: ||
The decrypted version of this character is: 8

C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-Q3.exe
please enter a character you would like to encrypt:
M
The encrypted version of this character is: M
The decrypted version of this character is: M

C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-Q3.exe
please enter a character you would like to encrypt:
z
The encrypted version of this character is: z
The decrypted version of this character is: z

C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>
```

Question-4

```
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>gcc PF-Lab-W05-Q4.c -o PF-Lab-W05-Q4.exe

C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-Q4.exe
Please enter your age:
19
Please enter your income s for stable and u for unstable:
s
Please enter your credit score out of 850:
701
You are eligible for a loan....
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-Q4.exe
Please enter your age:
12
Please enter your income s for stable and u for unstable:
u
Please enter your credit score out of 850:
11
You are not eligible for a loan....
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-Q4.exe
Please enter your age:
23
Please enter your income s for stable and u for unstable:
s
Please enter your credit score out of 850:
400
You are eligible for a loan....
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-Q4.exe
Please enter your age:
33
Please enter your income s for stable and u for unstable:
u
Please enter your credit score out of 850:
300
You are not eligible for a loan....
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-Q4.exe
Please enter your age:
33
Please enter your income s for stable and u for unstable:
u
Please enter your credit score out of 850:
690
You are not eligible for a loan....

You are not eligible for a loan....
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-Q4.exe
Please enter your age:
13
Please enter your income s for stable and u for unstable:
s
Please enter your credit score out of 850:
790
You are not eligible for a loan....
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-Q4.exe
Please enter your age:
15
Please enter your income s for stable and u for unstable:
s
Please enter your credit score out of 850:
200
You are not eligible for a loan....
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>PF-Lab-W05-Q4.exe
Please enter your age:
17
Please enter your income s for stable and u for unstable:
u
Please enter your credit score out of 850:
119
You are not eligible for a loan....
C:\Users\Muhammad Abu Bakar\FAST'25-Uni\Fall'25-Sem1\PF-Lab Tasks\24k-0826\Week5>
```