Software Engineering

Quiz #4 (100 points)

Name: Kenneth Schueman	Name: n/a

Answer the following questions and make a pdf file that includes the **source code, sample inputs, and outputs**. You must submit the **pdf file and all of the .c files** on Canvas for full credit. Do not forget to add your group partner name on the pdf file and the source codes.

1. (50 points) The following program prints the alphabet in lower case from 'a' to 'z'. Rewrite it using a for loop instead. Remember that chars can be referenced by their ASCII codes.

```c
#include<stdio.h>

int main() {

    char letter = 'a';
     while(letter <= 'z') {
printf("%c\n" , letter);
letter++;
    }
    return 0;
}
```

(50 points) Many user-created passwords are simple and easy to guess. Write a program that takes a simple password and makes it stronger by replacing characters using the key below, and by appending "!" to the end of the input string. You may assume that the string does not contain spaces and will always contain less than 50 characters.
- i becomes 1
- a becomes @
- m becomes M
- B becomes 8
- s becomes $

Sample Inputs and outputs format:

```
Please enter a password: mypassword

Your updated password: Myp@$$word!
```

File   Edit   Search   View   Encoding   Language   Settings   Tools   Macro   Run   Plugins   Window   ?   X

```c
#include<stdio.h>

int main() {
  char letter = 'a';

  for (int i = 0; i <= 25; ++i) {
      printf("%c\n" , letter);
          letter++;
  }

  return 0;
}
```

C source file   length : 147   lines : 12   Ln : 6   Col : 24   Pos : 81   Windows (CR LF)   UTF-8   INS

```
kenns@LAPTOP-L53JNR5E /cygdrive/c/Users/kenns/OneDrive/Desktop/Desktop/SE185/Homework/Quiz04
$ gcc Q1.c -o Q1
kenns@LAPTOP-L53JNR5E /cygdrive/c/Users/kenns/OneDrive/Desktop/Desktop/SE185/Homework/Quiz04
$ ./Q1
a
b
c
d
e
f
g
h
i
j
k
l
m
n
o
p
q
r
s
t
u
v
w
x
y
z

kenns@LAPTOP-L53JNR5E /cygdrive/c/Users/kenns/OneDrive/Desktop/Desktop/SE185/Homework/Quiz04
$
```

lab03-2.c Q1.c Q2.c

```c
int main() {
    char userPasswrd[50];
    char updatedPasswrd[50];
    int i;
    int n;

    printf("Please enter a password: ");
    scanf("%s", userPasswrd);

    for (i = 0; userPasswrd[i] != '\0'; ++i);

    for (n = 0; n <= i; ++n){
        if (userPasswrd[n] == 'i'){
            userPasswrd[n] = '1';
        }
        else if (userPasswrd[n] == 'a'){
            userPasswrd[n] = '@';
        }
        else if (userPasswrd[n] == 'm'){
            userPasswrd[n] = 'M';
        }
        else if (userPasswrd[n] == 'B'){
            userPasswrd[n] = '8';
        }
        else if (userPasswrd[n] == 's'){
            userPasswrd[n] = '$';
        }
    }

    userPasswrd[i] = '!';
    userPasswrd[++i] = '\0';

    printf("\nYour updated password: %s", userPasswrd);

return 0;
}
```

```
kenns@LAPTOP-L53JNR5E /cygdrive/c/Users/kenns/OneDrive/Desktop/Desktop/SE185/Homework/Quiz04
$ gcc Q2.c -o Q2

kenns@LAPTOP-L53JNR5E /cygdrive/c/Users/kenns/OneDrive/Desktop/Desktop/SE185/Homework/Quiz04
$ ./Q2
Please enter a password: mypassword

Your updated password: Myp@$$word!
kenns@LAPTOP-L53JNR5E /cygdrive/c/Users/kenns/OneDrive/Desktop/Desktop/SE185/Homework/Quiz04
$
```