Total Points (10 pts)

**Due: 4 PM on October 31st, 2016**

**Project 3: Check Password**

**Problem Description:**

Suppose a website impose the following rules for passwords.

1. A password must have at least eight characters.
2. A password consists of only letters and digits.
3. A password must contain at least two digits.

Write a program that prompts the user to enter a password. If the user enters a invalid password, the program needs to tell the user why it is invalid and ask the user to enter another password. The program should stop only when the user enters a valid password.

**Here is one sample run to check these 4 passwords in order   
(**My password18 🡪 pass18 🡪 password 🡪 Mypassword18**):**

Enter a new password: My password18

Invalid: Only letters and digits

Enter a new password: pass18

Invalid: Too Few Characters (8 at least)

Enter a new password: password

Invalid: At least two digits

Enter a new password: Mypassword18

Valid password!

**Hints**:

1. Start small.
   1. Try to add one rule at a time. Make sure this rule is implented correctly before adding the next one.
   2. Make your program work for handling one password correctly. Then, add the while loop to handle potentially multiple passwords so that the program will stop only when a valid password is typed. (Slides 20-21 in Chapter 5)
2. Utilize the debugger to make sure your code is running correctly.
3. Suppose ch takes one character, you can use Character.isLetterOrDigit(ch) to check if ch is letter or digit. Moreover, you can use Character.isDigit(ch) to check if ch is a digit; increase the count of digits by one only when one digit is found.
4. You don’t need to use user-defined functions to finish the project correctly.

**What to deliver?**

Your .java file including:

1. (Code: 5 points, Comments: 3 points)   
Your code with other appropriate comments.

1. 2. (2 points) One sample run to input the follow four passwords in order:

pw 🡪 password 🡪 itss 3211 🡪 itss3211