Java Lab 4

Create a JAVA program that does the following:

1. Asks the user for a secret 6 digit number. (Only allow the characters 0123456789. Only allow secret numbers with 6 digits. The secret number 000567 is a valid secret number.)
2. Ask the user to guess the secret 6 digit number. (Only allow the characters 0123456789. Only allow guess numbers with 6 digits. The guess number 000567 is a valid guess number.)
3. Tell the user if the numbers match.
4. Provide Information if there is a partial match.
5. Tell the user which digits match and which digits are not in the number at all.
6. Take guesses until the user guesses the correct number. (That is, no maximum number of guesses)
7. After the number has been guessed correctly, ask the user if they want to play again. Only allow the answers YES and QUIT.

You should make methods for inputting the secret number, the guess number and the choice to continue playing.

**Sample Output:**

Please provide a secret number that is 6 digits in length. The secret number 000678 is allowed. : 956.

Please provide a secret number that is 6 digits in length. The secret number 000678 is allowed.: HF7800

Please provide a secret number that only uses digits ( 0123456789). The secret number 000678 is allowed.: 6792435

Please provide a secret number that is 6 digits in length. The secret number 000678 is allowed.: 786523

Shh! Your secret number is 786523

What is your guess? 119623

Partial Match: XXXX23

The number 1 is not in the secret number.

The number 9 is not in the secret number.

The number 6 is in the secret number but not at location 4.

The number 2 at location 5 is correct.

The number 3 at location 6 is correct.

What is your guess? 689523

Partial Match: X8X523

The number 6 is the in the secret number but not at location 1.

The number 8 at location 2 is current.

The number 9 is not in the secret number.

The number 5 at location 4 is correct.

The number 2 at location 5 is correct.

The number 3 at location 6 is correct.

What is your guess? 786523.

CONGRATULATIONS, you have guessed the secret number 786523.

Do you want to play again? QUIT

Goodbye!

When complete, submit your .java class file and the following two screenshots (adjust the height of the Eclipse console to make sure the full output from the above script is visible):

Secret number: 123

Secret number: abcdef

Secret number: 189472

First guess: 926371

Second guess: 189472

**🡪SCREENSHOT🡨**

Play again: y

Play again: YES

Secret number: 123456

Guess: 123456

Play again: quit

**🡪SCREENSHOT🡨**