

Find a partner to pair program with.

Create a file called LabRegex.java

You can copy and paste the following code to get you started:

```
public class LabRegex
{
    public static void main(String[] args)
    {
        String myRegex1 = "CS\\d{4}";
        test(myRegex1);
    }

    private static void test(String regex)
    {
        String word;
        Scanner input = new Scanner(System.in);

        System.out.printf("Enter words to match the expression %s\n", regex);
        System.out.println("Enter DONE when you are finished");
        System.out.print("Word: ");
        word = input.nextLine();
        while (!word.equalsIgnoreCase("done"))
        {
            System.out.printf("%s %s\n", word, word.matches(regex) ? "matches"
                               : "does not match");
            System.out.print("Word: ");
            word = input.nextLine();
        }
    }
}
```

Regex Basics

- \d .. Digit
- \w .. Word character
- \s .. White space
- * ... 0 or more
- + ... 1 or more
- ? ... 0 or 1
- {3} . Exactly 3

The code above tests whether Strings start with the letters CS followed by 4 digits - like CS1400, CS1410, CS2530, etc.

Create regex expressions that tests for

- words that start with an uppercase A
- words that start with an uppercase vowel (A, E, I, O U)
- words that start with an uppercase vowel (A, E, I, O U) and are at least two characters long

Use the [Regex Library](https://regexlib.com) (regexlib.com) to find regular expressions that

- match a phone numbers of the form xxx-xxx- xxxx
- match emails

Test all of the regular expressions you created / found to verify that they work as expected.