

**Project 3: Basic Java Programming**

**Deadline:** Friday, November 1, (midnight) in e-campus.

**Objectives:** This assignment will test your understanding of “loops” and “selections”

**Comments:** Write the comments at program, method, and statement-level as needed in your program.

**ProgramName:** YourLastNamePhone.java

**Description:** To make phone numbers easier to remember, some companies use letters to show their telephone number. For example, the phone number 438-5626 can be shown as GET-LOAN (We will not deal with the area code in this program).

Write a well-commented Java program that prompts the user to enter a phone number expressed in letters (without the hyphen and either small or capital letter) and outputs the corresponding phone number in digits. i.e. If we input GETLOAN or getloan, the output should be 438-5626.

Here are the requirements of the program:

1. A user can input the alphabets and should get corresponding phone number. (No need to convert for area code).  
Eg. EATFOOD needs to be converted to 328-3663.
2. If the user enters less than or greater than eight letters, then the program should inform the user that there can be only seven digits.
3. The program should output the - (hyphen) after the third digit. See how there is hyphen after 328 in previous example.
4. Allow the user to use uppercase and lowercase letters.
5. Your program should continuously ask user whether to process a new number after processing a number. It should stop only when the user enters anything besides Y or y.
6. In case a user inputs invalid character, i.e. not an alphabet you should print out the character in the output and inform the user that there was an invalid character in input. Eg. If you input EAT”OOD accidentally, it would output 328-“663 but also inform that there was an invalid character present.

**1- Input:** Y or y to run each time, any other character to stop the program. 8 letter alphabets (String) to convert to numbers. Input can be upper or lower case letter.

**2- Output:** Examples for some cases:

Do you want to enter a number (Y/N):

Enter a number expressed in letters:

Phone number is 438-5626  
Do you want to enter a number (Y/N):

Enter a number expressed in letters:

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Phone number is 438-5626
Do you want to enter a number (Y/N): 

Enter a number expressed in letters: 

Phone number is 225-4663
Do you want to enter a number (Y/N): 

Enter a number expressed in letters: 

An Invalid character detected.
Phone number is 639-2@77
Do you want to enter a number (Y/N): 

Enter a number expressed in letters: 

Invalid length.
Do you want to enter a number (Y/N): 

Enter a number expressed in letters: 

Invalid length.
Do you want to enter a number (Y/N): 

Enter a number expressed in letters: 

Phone number is 639-2277
Do you want to enter a number (Y/N): 

>

```

- 3- Submission:** Name the file YourLastNamePhone.java. Through your ecampus account upload .java file only.