**package** lab5;

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\* LAB5 - Convert a phone number with letters on a phonepad to all numbers

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**import** java.util.Scanner;

**import** java.lang.Character; // Character functions will be used in this program.

**public** **class** PhonePadLettersToNumbers

{

**private** **static** Scanner *input*; // Written outside the main program so we can encapsulate our scanner variable.

**public** **static** **void** main(String[] args)

{

*input* = **new** Scanner(System.***in***);

System.***out***.println("Enter the phone numbers with letters: ");

String initialPhoneNumber = *input*.nextLine();

initialPhoneNumber = initialPhoneNumber.toUpperCase();

**long** finalPhoneNumber = *fullNumber*(initialPhoneNumber);

System.***out***.printf("The phone number in full numbers for '%s' is '%s'",

initialPhoneNumber, finalPhoneNumber);

}

**public** **static** **long** fullNumber(String initialPhoneNumber)

{

// Use long data type as int can only accept up to 9 digits

**long** number = 0;

**int** stringLength = initialPhoneNumber.length();

**for** (**int** currentCharacter = 0; currentCharacter < stringLength; currentCharacter++)

{ // The for loop is necessary so that the program will convert characters to numbers for as many inputs the user provides.

**char** ch = initialPhoneNumber.charAt(currentCharacter);

**if** (Character.*isLetter*(ch))

{

**switch**(ch)

{

**case** 'A' :

**case** 'B' :

**case** 'C' : number \*= 10; number += 2;

**break**;

**case** 'D' :

**case** 'E' :

**case** 'F' : number \*= 10; number += 3;

**break**;

**case** 'G' :

**case** 'H' :

**case** 'I' : number \*= 10; number += 4;

**break**;

**case** 'J' :

**case** 'K' :

**case** 'L' : number \*= 10; number += 5;

**break**;

**case** 'M' :

**case** 'N' :

**case** 'O' : number \*= 10; number += 6;

**break**;

**case** 'P' :

**case** 'Q' :

**case** 'R' :

**case** 'S' : number \*= 10; number += 7;

**break**;

**case** 'T' :

**case** 'U' :

**case** 'V' : number \*= 10; number += 8;

**break**;

**case** 'W' :

**case** 'X' :

**case** 'Y' :

**case** 'Z' : number \*= 10; number += 9;

**break**;

} // End of case/break

} // End of first if

**else** **if** (Character.*isDigit*(ch))

{

number \*= 10; number += Character.*getNumericValue*(ch);

} // End of second if

} // End of for loop

// Return actual number only at the end of the function

**return** number;

}// End of fullNumber function

}// End of class