Project 1: Postal Bar Code

CSC 1351, Spring 2006

Due: 7 February 2006

Design and implement a program for translating ZIP codes into Postal Bar Codes and vice versa, as described in Project 9.2 on pages 368–369 in the textbook.

Write a class `Main` that reads input from standard input (`System.in`) and writes output to standard output (`System.out`). Each input line should either be a ZIP code or a Postal Bar Code. Your program should translate any ZIP code into the corresponding Postal Bar Code and vice versa and print the result.

A ZIP code consists of either five or nine consecutive digits or of five digits, a hyphen, and four more digits. A Postal Bar Code consists of either five or nine digits encoded using vertical bars and colons as described in the book, including the frame bars and the check digit.

For example, the following is legal input for your program:

```
95014
||:|:::|:|:||:::::::||:|::|:::|||
708030001
70803-0001
```

Your program should print an error message if an input line does not contain a legal ZIP code or Postal Bar Code.

Administrative Stuff

Put your files in the directory `~/prog1` in your `cs1351xx` account on `byte` and submit it using something like

```
~cs1351a/bin/p_copy 1
```

Once we have the accounts, I'll let you know what the exact path for `p_copy` is.

Your main program should be in class `Main`. For simplicity, keep all the classes in the default package (i.e., don't use `package` declarations). Also submit a `README` file in which you describe how you designed your code and what the functionality of your classes is. About a couple paragraphs should be enough.