

Program 1 – Due April 6

(Total: 100 pts)

Write a program titled "YourLastName_Decoder" that decodes a secret message contained in a text file. The first line of the text file contains the key-phrase. Then the file contains a sequence of integers, each of which indexes the key-phrase. Find the character corresponding to each integer and output the secret message. Note if a character such as 'e' occurs several places in the key-phrase it may be encoded as different integers in different parts of the secret message.

For example, here is the contents of a secret message file ready for the program:

The quick brown fox jumps over the lazy dog
36 0 31 36 7 8 25 31 1 33 19 10 11 6 40 42 2 3 36 0 39 40 36 13 14

To decode the message, the program must look up each integer in the key-phrase and output the corresponding character. For example:

```
The quick brown fox jumps over the lazy dog
0123456789111111111122222222223333333333444
      012345678901234567890123456789012
```

using each integer from the encoded text as an index into the phrase results in the decoded message:

```
attack the bridge at dawn
```

The following shows an example interaction captured in a file by the command “% script Decoder.out”:

```
Script started on Thu Sep 26 10:23:58 2013
% java Diaz_Decoder < secretText1.txt
```

```
Your secret message is: attack the bridge at dawn
```

```
% exit
script done on Thu Sep 26 10:24:17 2013
```

*Note: You will need the charAt() method of String.

Run the program with all different input files provided and capture all interaction in a file using the script command.

What to turn in:

- Soft copy of the results using the script command
- Soft copy of the programs (using Blackboard)