

## COP-3337 Programming II

# Programming Assignment 5

FIU Knight Foundation School of Computing &amp; Info. Sciences

In this assignment, you are asked to complete a Java program that converts a file format to another. It should support the following formats:

- *.csv* (comma separated values) file: stores tabular data in plain text. Each line of the file represents a table row containing one or more cells separated by commas. If a content of a cell has one or more commas (e.g. 12,345), then that cell's content needs to be enclosed in double-quotations (e.g. "12,345").
- *.txt* (tab separated values) file: stores tabular data in plain text. Each line of the file represents a table row containing one or more cells separated by tab characters (`\t`). The content of each cell does not have any tab character.

## 1 Program Commands

- (35 points) **convert source.xxx destination.yyy**: this command converts source.xxx to destination.yyy where source.xxx is the name and extension of the file that user wants to convert and destination.yyy is the name and extension of the file in which the user wants to store the result of format conversion. Please note that xxx and yyy can either be csv or txt. Also, the file names may or may not include the path to the file in the file system.
- (60 points) **normalize source.xxx**: this command reads the content of source.xxx, normalizes the content of each cell, and writes the normalized content back to the same file. Normalizing a cell is an operation that depends on the current content of the cell:
  - if cell is empty: writes N/A instead
  - if cell contains an integer: normalization explicitly shows the sign (+ for positive and - for negative). Also, if the integer representation is shorter than 10 characters, it adds some leading zeros to make the representation 10 character long.
  - if cell contains a float/double: normalization shows two digit after decimal point. Also, it uses scientific notation if the number is greater than 100 or less than 0.01.
  - if cell contains a string longer than 13 characters, normalization shows the first 10 characters of the string followed by an ellipsis (three dots like this ...)

- otherwise, normalization causes no change.
- (5 points) **quit**: ends the program.

## 2 Submissions

You need to submit a *.zip* file compressing the following folders:

- the packages containing all the java source files related to the assignment (*.java* files).
- **A readme file clearly explaining what parts have/haven't been implemented.**