

# Programming Assignment #1

COEN 281 Pattern Recognition and Data Mining  
Department of Computer Engineering  
Santa Clara University

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Spring Quarter 2018  
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Tuesday & Thursday 9:00am-9:30am

**Due date:** Midnight April 15, 2017

## All Levenshtein Sequences (200 points)

Please implement a program in C/C++/Java to list all possible Levenshtein (i.e., edit) sequences from one string to another with optimal number of inserts/deletes/replaces.

### Input Example:

paris  
alice

### Output Example:

There are total of two sequences:

- 1) paris delete p → aris replace r by l → alis replace s by c → alic insert e → alice
- 2) paris delete p → aris replace r by l → alis insert c → alics replace s by e → alice

**Student Name:**

**SSN/ID:**

**Score:**

Correctness and boundary condition (60%, with 40% single sequence):

Whitespace and free format compliance (5%):

Compiling without warning/error (5%):

Error Handling (5%):

Modular design, file/directory organizing, showing input, documentation, coding standards (20%):

Automation (5%):

**Subtotal:**

Late penalty (20% per day):

Special service penalty (5%):

**Total score:**