

# CECS 478 - Lab 1 - sed and awk

September 8, 2020

**Assignment Description.** *sed* and *awk* are two commonly used tools in Unix operating systems, and are also typically used together.

*sed*, or the *stream editor* is a tool used for editing streams of text that might be too large to edit as a single file, or that might be generated on the fly as part of a larger data processing step. *awk* is a "data driven" program – you specify what kind of data you are interested in and the operations to be performed when that data is found. *awk* does many things, including automatically opening and closing data files, reading records, breaking the records up into fields, and counting the records. While *awk* provides the features of most conventional programming languages, it also includes some unconventional features, such as extended regular expression matching and associative arrays.

For this assignment, you will undertake five programming challenges using *sed* and *awk*. The challenges are listed on the website HackerRank. The challenges are listed below, and are worth 10 points each:

Challenge 1 - sed

Challenge 2 - sed

Challenge 3 - sed

Challenge 4 - awk

Challenge 5 - awk

**Note:** for some reason, Ubuntu doesn't like including *awk* as a default program to install. To install it in your instance, run the command '`sudo apt-get install gawk`' to grab the GNU version of *awk*. *sed* should already be installed.

**Deliverables.** Submit your source code files (one file per challenge) on Beachboard. Your files should be executable as BASH scripts (the editor on the challenge site can verify if your code meets this requirement). Make sure to comment your code, otherwise you will not receive credit for the assignment.