**<Last Name>, <First Name>**

<Date>

CSCIE-88, 2019 Fall

Homework 1: AWS and Docker Setup

This document is a template for your solutions submission. You are free to add additional information in this submission if you would like. Extra screenshots and extra documentation is perfectly fine. Screenshots must always be viewable. If a screenshot is too blurry to be viewed or is chopped off in a key area you will not receive full credit for it.

Please identify which problems were completed. If any were incomplete, please identify where you encountered problems.

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| *for example:*  Problem 1: 100% complete  Problem 2: Machine set up, but program not executed due to running out of time  Problem 3: 100% complete  Problem 4: 100% complete  Problem 5 Bonus: not attempted |

**Problem 1: [25 points] File generator program**

Paste your source code into the following area. All code should be heavily commented, and easily readable. [15 points]

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Paste an example of your code output into the following area. This can be a screenshot (ideally), or a copy/paste of console text. [5 points]

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Paste an example of the contents of one of your generated files in the following area. [5 points]

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**Problem 2: [25 points] Set up a machine and demonstrate that it works**

Paste a screenshot of your machine, include your owner information and creation date in your screenshot. [15 points]

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| Example:    Screenshot: |

Describe how you connected to your machine:

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Show which Java and/or Python version is installed on your machine:

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| Example:    Screenshot: |

Paste a screenshot of the command you used to transfer your program to your machine [5 points]

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Paste a screenshot of your program execution from within your machine. [5 points]

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**Problem 3: [25 points] Run Redis server and clients as Docker containers and demonstrate that they work**

Show all the commands you used, in sequence, to start your Redis server and clients [15 points]

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| Example:    Screenshot: |

Show the value of ‘x’ in the clients, as described in problem 3 [10 points]

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**Problem 4: [25 points] Run Postgres DB as Docker container and demonstrate that it works**

Show all the commands you used, in sequence, to start your Postgres server. [10 points]

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| Example:    Screenshot: |

Show how you connect to the DB [5 points]

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Show results of querying your database for all records. [10 points]

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**Problem 5: [Bonus, 15 points]: Start multiple Docker container via Compose**

Show your Docker Compose configuration [7 points]

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Show that theRedis server, 2 Redis clients, Postgres server are all functional [8 points]

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