Project #2

Student Names

SFUIDs:

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Purpose: This <u>group-project</u> is an extension of Project #1 on the specific topic described below.

Due: Friday, February 27th, 2020 (two weeks with TA submission instructions TBA)

Preliminaries:

- During the *first week*, do the assignment below *individually* resulting in a rough draft.
- During the *second week*, after the spring break, form groups of five people as close as possible. You are to prepare a *final draft* which synthesizes your individual efforts. **All rough drafts (with student names and SFUEDs) must be turned in with the final draft per group (which will include this document as a cover sheet).**
- **Note** that individuals who did *not* prepare a rough draft during the first week may be dealt with at the discretion of their team members (this is a key part of this exercise – how this is accomplished should be logged).

Task:

- Again, you are to follow the format of the following blog post:

  https://www.ybrikman.com/writing/2014/05/05/you-are-what-you-document/

- Familiarize yourselves with **quantum computing** and **quantum algorithms** with a goal of redoing Project #1, but with a virtual quantum computing machine (like IBM's Q Experience). Most importantly, you are to extend the notion of Project #1 of **the co-processor concept** – think of a quantum computer as a co-processor as your underlying theme for this exercise. *You must explain why a quantum computer should be thought of as a co-processor and not just a stand-alone computer*.
- Submission instructions will be provided next week by the TA.
- This assignment is to be done in LaTeX.

IMPORTANT NOTES:

- I do not make attendance mandatory. However, it is the student's responsibility to find out what was discussed from your peers. Assignments and in-class activities are designed so that attendance is NOT mandatory. However, those that do not attend will find this project much more difficult than the last one.
- This project will form the basis of Project #3 – oral presentation by groups.