**CprE 492 - sdmay20-08**
**Cirq: A Python Framework for Creating, Editing, and Invoking Quantum Circuits**
**Week 6Report**
4/3/2020 - 4/16/2020

AJ Hanus - Researcher, Developer
Andrew Hancock - Researcher, Developer
Austin Garcia - Researcher, Developer
Calista Carey - Researcher, Developer
Jake Shedenhelm - Researcher, Developer
Jordan Cowen - Researcher, Developer

**Client:** Victory Omele
**Faculty Advisor:** Akhilesh Tyagi

**Weekly Summary:**
Over the last two weeks, our group worked really hard getting our first PR open. We opened a PR for the two qubit diagonal gate code and the quil code. We have updated some comments left on our first implementation and are working on more testing and improving what we have written.

**Past week accomplishments:**
- Opened up our pull request
- Updated the code to the initial comments

**Pending Issues:**
Fix the code to pass the Travis tests.

**Individual Contributions:**

| Name | Individual Contributions | Hours this week | Hours Cumulative |
|---|---|---|---|
| Calista Carey | Met as a big group quite a few times to ensure that our code and output was as expected. We wanted to make sure all of our code worked well together and all of the functions written output values as expected. As a group, we opened up two pull requests, one for the two quil it diagonal gate, and one for the quil output file. | 6 (4/3-4/10) 5  (4/11-4/16) | 65 |
| Jordan Cowen | These past weeks I worked with Andrew to finish up our part for the PR. As well | 6 (4/3-4/10) 6 (4/10-4/17) | 54 |

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| | we had several group meetings to finish up as a team and complete the test implementations. The transition to online classes has been going well for our team. I will continue to update our tests in the coming weeks based off of PR comments made. | | |
| AJ Hanus | Finished the quil_output.py file. Implemented a QuilFormatter to properly output the qubits and measure gates to the quil files. Formatted the Pull Request and created the request in the Cirq repository. Reformatted the TwoQubitDiagonalGate and fixed the edits on the last PR. Met multiple times with the group to merge our code together and prepare. | 9 (4/3-4/10) 8 (4/10-4/17) | 72 |
| Austin Garcia | Met with the group online throughout the past week to finalize each of our branches and make final changes before merging. Worked together to finalize the output test and add comments before the pull request. | 6 (4/3-4/10) 4 (4/10-4/17) | 55 |
| Andrew Hancock | We have met as a group through google hangouts multiple times to work on getting our pull request ready and submitting it as well as addressing the first round of reviews. I've removed three tests that are unimportant to what we are currently doing as well as debugged and made sure all of our relevant tests are passing. This is all in preparation for our next batch of reviews. | 7(4/3-4/10) 6(4/10-4/17) | 63 |
| Jacob Shedenhelm | These past two weeks we have met as a group multiple times to complete our pull requests. We picked up another pull request, the TwoQubitDiagonalGate in order to complete our final pull request. This added some work to our plate but our client was very helpful. In the coming weeks, we will continue to work on the pull requests and address | 7 (4/3-4/10) 5 (4/10-4/17) | 65.5 |

| | comments that have been left on the PR's. | | |
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**Plans for Coming Weeks:**
- Calista: Continue testing implementation and updated code based off of reviewers suggestions.
- AJ: Make edits to our pull requests to pass the CLA and Travis tests.
- Jordan: Make edits and update code based off pull requests comments
- Jacob: Continue updating pull requests and test cases based off pull requests
- Andrew: Along with Jordan, write the _quil_ functions for X, Y, and ZPowGate as well solidify changes that will be made to XX, YY, and ZZPowGate.