Progress Report

Group Number: 59
Team members:
Hassan Naveed (hnaveed3@gatech.edu)
Pushkar Sinha (pushkarsinha@gatech,edu)

What we have done so far:
We are working on problem 14 in the programming questions which involves simulating a game. We are done with the bulk of the technical work:

- We have written code to simulate one run of the game, to be used as a function.
- We simulated 10,000 runs of this game to get the expected value of the number of cycles for this game to finish.
- We were able to plot a histogram to view the distribution.
- The code has been made available on github under: https://github.com/hassannaveed1997/simulation_project

What we still need to do:
Some of the future steps that remain include finding the distribution (or at least a very close one) and writing a report. We hope to perform some sort of theoretical analysis as well if it is possible on this problem, otherwise the empirical results should be sufficient.

The parameters in distributions can be fit in python using the “scipy.stats” package. From visual inspection of the output, suitable candidates could be the exponential and Weibull distribution. We will perform statistical tests to test our hypothesis that these values come from own chosen distributions.