**Team 4 - Milestone 4: Essential Test Plan**

**A. Goals and Exit Criteria (Nick)**

i. Quality goals that need to be met for test phase to exit

ii. Robustness goals of the product

iii. Schedule goals of the project

iv. Performance and efficiency goals of the product

**B. Items to Be Tested/Inspected (Nick)**

i. Executables such as modules and components

ii. Non-executables such as requirements specification or design specification

**C. Test Process/ Methodologies**

i. Unit test/Functional test/Acceptance test/Regression test/ and so on, methodologies

ii. Inspections/reviews methodologies

iii. Black-box testing (e.g., Input domain test, boundary value testing)

iv. White-box testing (e.g., control path testing, data flow testing)

v. Test metrics (e.g., code coverage, branch coverage, number of problem by severity)

vi. Test-bug report-fix-retest process

**D. Major Test Scenarios and Test Cases**

i. Boundary value and input domain test cases

ii. Control path and dataflow test cases

iii. Integration and intermodular test cases

**E. Resources**

i. People (number of, skills, etc.)

ii. Tools (for measurement, defect management, etc.)

iii. Systems (test execution platform, test case development, etc.)

**F. Schedule - (Bryan) -** [**Please see Team 4 Project Plan**](https://docs.google.com/spreadsheets/d/1mGG9qHcyyTj4lnpE-PKUmnkchwIebzpX/edit#gid=1789924259)

**G**. **Risks - (Bryan)**

* **Security**: Our program does not have high severity security breach risks, however we do support and deal with public health. It is somewhat complicated because there are no government rules against actual store capacity. However if there was we would need to make sure to be compliant in the following ways:
  + Secure user login
  + Secure data storage and management
  + High level of confidence that when a capacity at the store is shown to be safe to the user that it is actually safe! For this we would need to test all the edge cases and do extensive bug testing.
* **Risks**
  + **Low** **Risks**:
    - **Program Planning / Health**: Our program has been tracking very nicely to plan. System architecture is established and we are refining the class structure and user flows.
  + **High Risks**
    - **Coding**: Because our team is small and with limited knowledge on mobile systems code, our code base will take some time to complete. (It is unlikely we will be able to complete the program to the scale at which we have designed it). More resources needed.
      * We have until end of semester for coding and our original plan was to start this around milestone 4 timing but really pick it up after the personal paper presentations. We are likely to stay on track to that.
    - **Testing**: Due to our limited resources and being required to plan, code and test: It is unlikely we will be able to establish automated UI testing to run our code against. We will be able to run basic UI testing to confirm the flows work as intended.

**H. Add progress information and changes from milestone 3 - (Bryan)**

* **Review of progress since the previous milestone.** 
  + Understanding more the complexities of mobile code bases.
  + System consideration from a testing perspective.
  + Refinement of use cases.
  + Refined program scope / tasks to align with the newest learned information.
  + Made a team plan for how and when to work on the code.
  + Updated program plan.
* **Revised schedule and plan for the remainder of the project.** 
  + (Complete and committed to github)