GROUPRE TEST PLAN:

Test Platforms:

- Online – testing will be of PHP/Python product, to be tested on a CloudApps.
- Offline – testing will be of Python core offline, by developers on development machines.

Test Cases:

- Test cases are expected to yield information confirming successful processing of input data in accordance with program parameters. Failing that, testing is expected to yield errors related to either the algorithm's processing of the data, or data input errors. Specific issues that will be tested for include, but are not limited to the following:
- Number of seats: currently, an incorrectly coded number of seats will cause the program to crash. As development continues, features will be implemented that will enable the user to dynamically scale the number and layout of seats per classroom. For both current and planned implementation, either too many or too few seats will have to be tested to ensure functionality.
- Upon full implementation, students will be prompted with specific preference requests at the outset of any class in which Groupre is used. Too many choices set to a priority 1 preference will cause errors in the sorting algorithm. Testing will find those errors and address them.
- At present, input is coded directly into the program. Upon full implementation, the user will make several selections about requested output based on user specific requirements. Testing of this issue will

address any user input errors, and will likely result in attempts to limit open-ended user input.

- Not all .csv files follow the same standard. Testing for .csv input errors will address those potential issues.
- Interoperability issues are expected, given differences in user hardware. These issues will be limited because final implementation will be server-side, but testing will still be conducted on as many platforms as possible to account for any potential variances.
- The .csv's will be able to capture and account for the vast majority of test cases, from user input errors to algorithmic irregularities.

Third-party testing is neither expected nor required at this point.