

## Advanced Software Engineering

### Team Assignment 7

Team: Argonauts (Ashkan, Mukund, Namrata, Raymond)

Github Link: [https://github.com/rkfan/Parq/tree/demo2\\_version](https://github.com/rkfan/Parq/tree/demo2_version)

### Continuous Integration:

The continuous integration was set up a while ago, more towards the beginning of the semester. We are using Travis CI. For this assignment, we added the badge on our repository and it shows that our build is passing.

### Coverage Tool

Setting up coverage for python involved going on coveralls.io, and activating our github repo with it (we get a nifty badge too- currently says Unknown but working on that). Additionally, we had to install the python-coverage package to interact with coveralls.io.

We can configure nosetests to run with coverage with the --with-coverage flag. At first, this did it with everything in our framework and imported packages, so we specified to only do coverage over our app package.

To finalize the coverage with our continuous integration, we made some changes to our .travis.yml file. There are many ways and many tools to set this up: some of the challenges faced was that there was a tool called python-coverage but also a similar tool called coverage-python, which was confusing. In addition, the documentation for coverage.io for setting up our repo gave us instructions for Ruby!!! (Perhaps a bug?)

Below is the output of our tests with a report of their coverage within our Travis CI build.

| Name                      | Stmts | Miss | Cover | Missing  |
|---------------------------|-------|------|-------|--|
| app.py                    | 23    | 0    | 100%  |  |
| app/forms.py              | 107   | 19   | 82%   | 28, 79-80, 94-96, 113-114, 119, 122-124, 131, 134-136, 152-154   |
| app/models.py             | 124   | 29   | 77%   | 35, 39, 43, 54-55, 76, 113, 119, 124, 140, 145, 152-169, 178-179, 199-205, 209, 213  |
| app/routes.py             | 300   | 158  | 47%   | 51-56, 60-116, 146-147, 163-166, 172-189, 209, 228-244, 253-288, 298-299, 304-311, 317-318, 324-336, 341-342, 347-356, 394-395, 419, 424-426, 431-443, 448-454, 465-483, 487 |
| app/tests.py              | 0     | 0    | 100%  |  |
| app/tests/base.py         | 26    | 0    | 100%  |  |
| app/tests/test_basic.py   | 16    | 1    | 94%   | 27   |
| app/tests/test_buyer.py   | 19    | 0    | 100%  |  |
| app/tests/test_helper.py  | 35    | 1    | 97%   | 63   |
| app/tests/test_parking.py | 69    | 16   | 77%   | 55-70, 84-90, 114  |
| app/tests/test_user.py    | 106   | 1    | 99%   | 172  |
| TOTAL                     | 825   | 225  | 73%   |  |
| Ran 43 tests in 5.333s    |       |      |       |  |
| OK                        |       |      |       |  |

Link to report on github repo:

[https://github.com/rkfan/Parq/blob/master/Assignments/coverage\\_report.txt](https://github.com/rkfan/Parq/blob/master/Assignments/coverage_report.txt)

The tool tells you what lines are not covered, there are still a lot of lines in routes.py we have not covered yet. Some are tests missing due to added functionality: we are working on tests to

increase coverage for that currently. Additionally, we are having some trouble with the coveralls.io tool and badging which will hopefully be up and working by the time you are reading this submission.

### **System Tests**

We devised system tests according to our requirements: user stories and use cases. Much of this involved manually testing the system as a user. Some of the tests included in our tests folder are actually system tests. Some system tests we performed were user selecting parking spots, user searching for parking spots, user seeing their own parking spots they rented, etc. Additionally, some things we tested for was that appropriate error messages popped up when we did things that we were not allowed to do. All added tests are in our tests directory.