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CS 576
08/19/2018

- Source Code is included in "chess_move_checker" directory. To build and run the source on linux:
  - Change to the source directory
    - cd /path/to/my/folder/root/chess_move_checker
  - Create a python 3.6 or greater virtual environment (from tux you can use a python 3.6 build in my home directory)
    - virtualenv -p ~csg58/bin/python3.6 venv
  - Source the virtual environment
    - source ./venv/bin/activate
  - Install the dev requirements
    - pip install -r dev-requirements.txt
  - Install the package
    - pip install -e .
  - Run the program! (validate_move should be in your path now, example input files are in tests/regression_tests/inputs)
    - validate_move OR validate_move -i input_file
  - If validate_move is not in your path, you can also run the program with python chess_move_checker/__main__.py
- For test cases, I had regression and unit tests. I used Unit tests to fill in any areas that my regression tests did not cover.
  - Regression tests are stored in chess_move_checker/tests/regression_tests
  - Unit tests are stored in chess_move_checker/tests/unit_tests
  - Run all tests by running (assuming you are in the directory with setup.py in it):
    - python setup.py test
  - To run tests with code coverage, you must run:
    - nosetests --with-coverage --cover-package=chess_move_checker
- Here is some output from the static analysis tool pylint that I ran against my code:

```
************* Module chess_move_checker.types
R: 12, 8: Unnecessary "else" after "return" (no-else-return)
R: 20, 8: Unnecessary "else" after "return" (no-else-return)
R: 27, 8: Unnecessary "else" after "return" (no-else-return)
************* Module chess_move_checker.board_state_validator
W: 25, 8: __init__ method from base class 'InvalidBoardStateException' is not ca
lled (super-init-not-called)
R:  9, 0: Too few public methods (1/2) (too-few-public-methods)
************* Module chess_move_checker.pieces.pawn
R: 27, 8: Unnecessary "else" after "return" (no-else-return)


------------------------------------------------------------------
Your code has been rated at 9.84/10 (previous run: 9.84/10, +0.00)
```

- From that output, I went back and updated the code in a few places to remove unnecessary "else" after returns, particularly in types.py. I also used the built-in static analysis tool in my IDE, Pycharm, as I developed. This tool helped me avoid syntax errors and would give type suggestions do some static analysis as I wrote code.
- My final code coverage was about 97%. As I developed, I used the tools "Github", "Travis CI" and "Coveralls" to build my code and run my tests as I developed it. Every time I would push a commit to my Github repository, Travis CI would run all of my tests and upload the results to Coveralls. Here is the history of code coverage as I worked on the project and committed to my repository.

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BUILDS	BRANCH	COVERAGE	COMMIT	COMMITTER	TYPE	TIME	VIA
19	master	↑ 96.89	uhh	camerongraybill	push	19 Aug 2018 10:32PM UTC	travis-pro
17	to-turn-in	− 96.89	Some pylint changes	camerongraybill	push	19 Aug 2018 10:26PM UTC	travis-pro
16	to-turn-in	⊕ 96.89	Fixed names	camerongraybill	push	19 Aug 2018 10:14PM UTC	travis-pro
13	master	↑ 82.0	Forgot that would break pylint	web-flow	push	19 Aug 2018 09:19PM UTC	travis-pro
11	master	↓ 81.14	Fixed pawn double moves	camerongraybill	push	16 Aug 2018 09:35PM UTC	travis-pro
10	master	↓ 81.48	Added more regression tests	camerongraybill	push	18 Jul 2018 09:33PM UTC	travis-pro
9	master	↓ 82.55	Updated some code quality stuff	camerongraybill	push	18 Jul 2018 08:26PM UTC	travis-pro
8	master	↓ 85.01	Implemented checking for check	camerongraybill	push	15 Jul 2018 05:02PM UTC	travis-pro
7	master	↑ 86.02	Merge remote-tracking branch 'origin/master'	camerongraybill	push	12 Jul 2018 11:23PM UTC	travis-pro
6	master	− 63.95	Update README.md	web-flow	push	12 Jul 2018 09:45PM UTC	travis-pro
5	master	↑ 63.95	now pass	camerongraybill	push	12 Jul 2018 09:43PM UTC	travis-pro
3	master	− 28.57	now pass	camerongraybill	push	05 Jul 2018 04:30PM UTC	travis-pro
1	master	⊕ 28.57	Build integration	camerongraybill	push	05 Jul 2018 04:15PM UTC	travis-pro