**Poker Python**

**Design**

Poker Python has similar design in Poker Design doc

def best\_hands(hands)

create Poker object for each hand

then compare each to find the winner

class Poker

parse hand

check for flush, straight

create kinds

call score\_hand()

see Poker Design doc for more details

**Some technical highlights:**

Python is similar to Ruby.

\_ python3 with comprehensive List in for loop is very powerful.

flush = all( self.suits[0] == s for s in self.suits )

straight = all( ranksSorted[0]+i == ranksSorted[i] for i in range(len1) )

\_ python list is ruby array

\_ python Dictionary is unordered of collection of data, Ruby Hash is ordered as insertion of data.

\_ python3 remove has\_key(), now use if i in ranksDict

for i in ranksSorted:

\_ python3 has lambda function similar to Ruby

findex = lambda c: '--23456789TJQKA'.index(c) # convert ranks to values

\_ python can use compare operator (<,>,==) to compare two Lists (with Dictionary elements), that simplifies the code a lot compare to Java.

\_ many python functions are destructive not like Ruby need to has ‘!’ function for destructive

ex: python array.reverse() => modify the array, ruby array.reverse, but array.reverse! will

**Testing**

17 tests compare different combination of hands: flush vs straight, square vs full house, two squares,….

\_ **Use umittest module,** poker\_uint\_test.py

cd /Users/local-kieu/programming\_skills/four\_languages/poker/python

$ python3 poker\_unit\_test.py

.................

----------------------------------------------------------------------

Ran 17 tests in 0.002s

OK

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**-Use pytest:**

To **create and activate a virtual environment** for this project, let's run the following commands:

# create a virtual environment

mkdir kieu-pytest

cd kieu-pytest

python3 -m venv kieu-pytest

As long as the virtualenv is active, **any packages we install will be installed in our virtual environment, rather than in the global P**ython installation.

To get started, let's install pytest in our virtualenv.

$ pip install pytest # look good

cd /Users/local-kieu/programming\_skills/four\_languages/poker/python/poker-pytest

**$ pytest**

============================================== test session starts ===============================================

platform darwin -- Python 3.7.0, pytest-3.8.2, py-1.7.0, pluggy-0.7.1

rootdir: /Users/local-kieu/programming\_skills/four\_languages/poker/python/poker-pytest, inifile:

plugins: mock-1.10.0, cov-2.6.0

collected 17 items

test\_poker\_pytest.py ................. [100%]

=========================================== 17 passed in 1.16 seconds