ECS15

sequence
Sequences

- There are three kinds of sequences in Python:
  - **Strings** – we use these a lot.
    - “albatross”
  - **Lists** – we saw those last time, they are important.
    - [1,1,2,3,5,8,13]
  - **Tuples** – a specialized kind of list: only does some of the things a list can, but does them more efficiently. We will ignore tuples in this course.
    - (1,3,5,7,9)
Using sequences

- We can **concatenate** sequences.
  - “drive” + “way” has value “driveway”
  - \([1,2,3]+[3,2,1] = [1,2,3,3,2,1]\)
Looking for an item

- Boolean expressions to test for the presence of an item:
  
  'i' in 'team'

  7 in range(1,7)
Using sequences

- Use sequences in for loops

  ```python
  for count in range(1,11):
      print count

  for animal in ["dog", "cat", "pig", "cow"]:  
      print "I love my",animal
  ```
Shuffling!

- Another random function in the random module

```
random.shuffle(deck)
```

- Takes the list deck and shuffles it.
Now to deal a hand…

- deck[0] is the first item in the deck
- deck[i] is the ith item in the deck
- deck[51] is the last item (there are 52 cards in a deck)
- deck[52] is an error!
- deck[i], where i is the index.
How to avoid the error?

```python
len(deck) = 52

if i >= len(deck):
    print ("Not a good index.")
else:
    print ("The",str(i)+"th card is",deck[i])
```
Dealing!

- Dealer gets two cards
- Player gets two cards
- How do we decide who wins?
Need to know values

- Make lists of values paralleling list of ranks
- Look up value of rank of each card
Finally, add up score

- My hand and your hand