DICTIONARY

{key:value}

- A dictionary in Python is a data-type of key:value pair(s)

- Dictionaries are orderless

- The elements in a dictionary are indexed by keys

- Dictionary is mutable

- Dictionary can contain mixed

- The {key} MUST be immutable object - **string OR number ONLY**

- Keys in dictionary are required to be unique

- Dictionary is called an associative array or a hash table in other languages

Define a dictionary

- d = {'Name':'Stan', 'Age':35, 'Sex':'M'}

- d = dict([('Namne','Stan')])

- d = dict(zip(['Name', 'Age', 'Sex'],['Stan',35,'M']))

Dictionary from a list

- l = ['Age',35,'Name','Stan','Sex','M']

- i = iter(l)

  - iter != for loop

- d = dict(zip(i,i))

- {'Age': 35, 'Name': 'Stan', 'Sex': 'M'}

Main dict methods

- d.values() / d.keys()

- d.viewvalues() / d.viewkeys()

- d.get() | d.get('key', 'output')

- d.has_key()

- d.update()

- d.copy()

- d.pop() / d.popitem()

- d.clear()

Operators on dictionary

- **len(dict)** - returns the number of stored entries, i.e. the number of (key,value) pairs.

- **del dict / del dict[key]** - deletes a dict or the key together with its value

- **k in dict** - returns True, if a key k exists in a dictionary or False if it's not

- **k not in dict** - returns True, if a key k doesn't exist in a dictionary

- str(dict) - rroduces a printable string representation of a dictionary

ClassWork #1

Classwork #2

- Write a function char_freq() that takes a string and builds a frequency listing of the characters contained in it.

- Represent the frequency listing as a Python dictionary.

- Try it with something like char_freq("abbabcbdbabdbdbababcbcbab").

- Print out the most using charachter and number of occurence, like: "The most using character is <a> - <num> times"

HomeWork