Python Review and Code Challenges

Unit 2 Lab 1

Python Data Structures

- Strings
- Lists
- Tuples
- Dictionaries

Python Strings

```
mystr = "dog"
```

- Immutable
- Homogenous
- Indexed from 0 to length -1
- Can be sliced with [ ]
- Ordered and Iterable

Python Lists

```
mylist = [1,"a",[a,b,58]]
```

- Mutable
- Heterogenous
- Indexed from 0 to length -1
- Can be sliced with [ ]
- Ordered and Iterable

Python Tuples

`mytuple = (54,12,19)`

- Immutable
- Heterogenous
- Indexed from 0 to length -1
- Can be sliced with [ ]
- Ordered and Iterable

Python Dictionaries

`mydict = {"bill":28,"sam":99}`

- Mutable
- Heterogenous
- Indexed with key-value pairs
- Keys must be immutable
- Unordered but Iterable

Python Data Structures

- **Strings - methods**
  find(), capitalize(), islower(), join(), split(), strip(), encode() + more
- **Lists - methods**
  append(), extend(), remove(), index(), pop(), sort(), reverse() + more
- **Tuples - methods**
  count(), index()
- **Dictionaries - methods**
  get(), keys(), pop(), update(), copy(), clear(), values() + more

Other Python highlights of Lab 1

- keywords - in
- loops - for, while, enhanced for
- conditionals - if, elif, else
- boolean operators- and, or, not