

Topic 11: Data Structures 2 (Dictionary) Labs /Work on Assignment 2

Lab 01

Which of the following dictionaries are created correctly?

```
d = {1:[1, 2], 3:[3, 4]}
d = {[1, 2]:1, [3, 4]:3}
d = {(1, 2):1, (3, 4):3}
d = {1:"john", 3:"peter"}
d = {"john":1, "peter":3}
```

Suppose a dictionary named `students` is `{"john":3, "peter":2}`. What do the following statements do?

- (a) `students["susan"] = 5`
- (b) `students["peter"] = 5`
- (c) `students["peter"] += 5`
- (d) `del students["peter"]`

Show the output of the following code:

```
def main():
    d = {"red":4, "blue":1, "green":14, "yellow":2}
    print(d["red"])
    print(list(d.keys()))
    print(list(d.values()))
    print("blue" in d)
    print("purple" in d)
    d["blue"] += 10
    print(d["blue"])
```

For a dictionary `d`, you can use `d[key]` or `d.get(key)` to return the value for the key. What are the differences between them?

Lab 02

Write a program that counts the occurrences of words in a text file (use your own) and displays the ten most frequently used words in *decreasing* order of their occurrence counts.

HINT: Use a Dictionary to store each word and its count. Ignore case and treat them as the same word (example **Good** is treated the same as **good**)

Lab 03

Start working on the Assignment 2 – Part A.