Exercises of Chapter 7

1) Try This: Create a dictionary

Look at the code below:

```
profile = {}

    for i in range (3):
      name = input('What is your name?')
      age = int(input('What is your age?'))
      profile[name] = age

      search = input('Please enter the name: ')
      print(profile[search])
```

2) Quick Check: Dictionary Operations

Let’s write the code:

```
x = {'a': 1, 'b': 2, 'c': 3, 'd': 4}
y = {'a': 6, 'e': 5, 'f':6}
del x['d']
print(x)
```

The result would be: {'a': 1, 'b': 2, 'c': 3}

```
z = x.setdefault('g', 7)
print(x)
```

The result would be:
{'a': 1, 'b': 2, 'c': 3, 'g': 7}

```
x.update(y)
print(x)
```

The result would be:
{'a': 6, 'b': 2, 'c': 3, 'g': 7, 'e': 5, 'f': 6}

3) Quick Check: What can be a key?

Can be	**Can't be**
1	('tom', [1, 2, 3])
'bob'	["file-name"]
"filename"	
("filename", "extension")	

*4) Try This: Using Dictionaries

```
s = {}
s[('X', 1)] = 20
s[('Y', 1)] = 200

print(s[('X', 1)])
```

*5) Lab 7: Word Counting

```
moby_words = []
    for word in infile:
        if word.strip():
            moby_words.append(word.strip())

moby_words = []
with open('moby_01_clean.txt') as infile:
    for word in infile:
        if word.strip():
            moby_words.append(word.strip())

word_count = {}
for word in moby_words:
    count = word_count.setdefault(word, 0)
    count += 1
    word_count[word] += 1

word_list = list(word_count.items())
word_list.sort(key=lambda x: x[1])
print("Most common words:")
for word in reversed(word_list[-5:]):
    print(word)
print("\nLeast common words:")
for word in word_list[:5]:
    print(word)
```

The result would be:

The most common:

("the", 14)
("and", 9)
("i", 9)
("of", 8)
("is", 7)

The least common:

("see", 1)
("growing", 1)
("soul", 1)
("having", 1)
("regulating", 1)