



## ***Study***

In the book: <http://www.ict.ru.ac.za/Resources/cspw/thinkcspy3/thinkcspy3.pdf>

**Required:** Read sessions 20.0 (from the beginning of Chapter 20), 20.1, and then do exercises 20.8.1, 20.8.2 and 20.8.3

**Optional:** Read sessions 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, and then do exercises of 4.9 (you may want to look at these soon :D )



## Serious exercises

### Exercise 1

Given the following dictionary:

```
inventory = {
    'gold' : 500,
    'pouch' : ['flint', 'twine', 'gemstone'],
    'backpack' : ['xylophone', 'dagger', 'bedroll', 'bread loaf']
}
```

Try to do the followings:

- Add a **key** to inventory called 'pocket'.
- Set the value of 'pocket' to be a list consisting of the strings 'seashell', 'strange berry', and 'lint'.
- `.sort()` the items in the list stored under the 'backpack' key.
- Then `.remove('dagger')` from the list of items stored under the 'backpack' key.
- Add 50 to the number stored under the 'gold' key.

### Exercise 2

Follow the steps bellow:

Create a new dictionary called `prices` using `{}` format like the example above.

Put these values in your `prices` dictionary:

- "banana": 4,
- "apple": 2,
- "orange": 1.5,
- "pear": 3

Create a **list** called `purchased_items`, containing all of items a customer wants to buy:

- "banana": 5,
- "orange": 3

Loop through each item in `purchased_items`. For each item, print out the key along with quantity and its price. Print the answer in the following format:

- banana, quantity: 5, unit price: 4
- Let's determine how much the purchase would be:

- o Create a variable called `total` and set it to zero.
- o Loop through the `purchased_items` dictionaries. For each item in `purchased_items`, multiply the quantity with `unit_price`. Print that value into the console and then add it to `total`.
- o Finally, outside your loop, print `total`.



## ***Tools preparation***

Download and install the following tool:

[https://store.unity.com/products/unity-personal?\\_ga=2.100813697.1005248360.1501548306-496880903.1487386998](https://store.unity.com/products/unity-personal?_ga=2.100813697.1005248360.1501548306-496880903.1487386998)



