

[PART 1]

Dictionary in Python: Define the following *dicts*:

```
d1={"name": "Lisa", "age": 22, (3, 'm'):[ 'a1', 'b2', 'c3'], 5: "Seasons", 20: 556, 12:64}
```

```
d2 = dict([("name","Chris"), ('age', 36), ((1,2),['uu', 'vv', 'ww']), (0, 'bike'), (86, 50)])
```

```
d3 = dict(id=123, name='James', siblings=['Adam', 'Bob', 'Carly'])
```

```
d4 = dict(zip(("id", "name", "quantity"), (2020, "John Smith", 5)))
```

Worked with dict methods:

- `d1.keys() : [(3, 'm'), 'name', 'age', 12, 20, 5]`
- `d2.values() : [['uu', 'vv', 'ww'], 'bike', 36, 'Chris', 50]`
- `d3.get('id') : 123`
- `d2.get('age') : 36`
- `d3.get('age') : None`
- `d3.get('name', 'Tim') : James`
- `d2.items() : [((1, 2), ['uu', 'vv', 'ww']), (0, 'bike'), ('age', 36), ('name', 'Chris'), (86, 50)]`
- `d3['siblings'] : ['Adam', 'Bob', 'Carly']`
- `d2['siblings'] : Traceback (most recent call last):`

`File "main.py", line 14, in <module>`
`print (d2['siblings'])`
`KeyError: 'siblings'`
- `d2.update(d3) : None`
- `d2[0] : {(1, 2): ['uu', 'vv', 'ww'], 0: 'bike', 'name': 'James', 'age': 36, 86: 50, 'siblings': ['Adam', 'Bob', 'Carly'], 'id': 123}`
- `d1.get((1,2)) : None`
- `d2['siblings']* : ['Adam', 'Bob', 'Carly']`
- `d2['name']* : James`
- `d1 == d2 : False`
- `len(d2) (Before Update [d2.update(d3)]) : 5`
- `len(d2)(After Update) [d2.update(d3)] : 7`

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- for key in d1.keys():
 print(key)

```
(3, 'm')  
name  
age  
12  
20  
5
```

- for key in d2.keys():
 print(d2[key])

```
(Before Update [d2.update(d3)])  
['uu', 'vv', 'ww']  
bike  
36  
Chris  
50
```

```
(After Update) [d2.update(d3)]  
['uu', 'vv', 'ww']  
bike  
James  
36  
50  
['Adam', 'Bob', 'Carly']  
123
```

[PART 2]

```
f = open("catalog.txt", "r")
```

```
myitems = ['gym mats', 'rigs', 'boxing gloves', 'ropes', 'treadmill',  
           'elliptical', 'dumbbell', 'yoga ball']
```

```
d1 = { }
```

```
for item in myitems:
```

```
    while True:
```

```
        contain = f.readline()
```

```
        if(item in contain):
```

```
            d1[item] = (f.readline(),f.readline())
```

```
            break
```

```
        elif(contain == ""):
```

```
            print(item + "is not available in the catalog.")
```

```
            break
```

```
f.seek(0,0)
```

```
print(d1)
```

```
while True:
```

```
    s = input("Enter Fitness Item: ")
```

```
    if(s in d1):
```

```
        print(s + " has:\nCategory: " + d1[s][0]+"Value: " + d1[s][1])
```

```
        while True:
```

```
            try:
```

```
                n = int(input("How many " + s + " do you want to order: "))
```

```
            if(n>0):
```

```
                print("Your order is successful!")
```

```
                break
```

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```
    else:
        print("Negative values not accepted! Please try again")
    except ValueError:
        print("Invalid quantity input")
    break
else:
    print("Item does not exist. Please try again.")
```