

Mini Project Week 4

Now that we've learned how to work with two-dimensional data, let's refactor our app to use dictionaries for both product and courier.

Building upon our use of a courier index within our order, let's create a list of product indexes now for order items.

We'll also need to refactor our storage layer to use `.csv` files rather than `.txt` to bring back our persistence functionality.

Unit-tests from previous weeks will need to be updated.

Goals

As a user I want to:

- create a product, courier, or order and add it to a list
- view all products, couriers, or orders
- update the status of an order
- persist my data
- *STRETCH* update or delete a product, order, or courier
- *BONUS* list orders by status or courier

Spec

- A `product` should be a `dict`, i.e:

```
{  
  "name": "Coke Zero",  
  "price": 0.8 // Float  
}
```

- A `courier` should be a `dict`, i.e:

```
{  
  "name": "Bob",  
  "phone": "0789887889"  
}
```

- An `order` should be a `dict`, i.e:

```
{  
  "customer_name": "John",  
  "customer_address": "Unit 2, 12 Main Street, LONDON, WH1 2ER",  
}
```

```

"customer_phone": "0789887334",
"courier": 2, // Courier IDX
"status": "preparing",
"items": [1, 3, 4] // Product IDs
}

```

- Data should be persisted to a .csv file on a new line for each courier , order , or product , ie:

```

# ORDER
John,"Unit 2, 12 Main Street, LONDON, WH1 2ER",2,preparing,"1,3,4"

```

Pseudo Code

```

LOAD products list from products.csv      # WEEK 4 UPDATE
LOAD couriers list from couriers.csv      # WEEK 4 UPDATE
LOAD orders list from orders.csv          # WEEK 4 UPDATE
CREATE order status list

PRINT main menu options
GET user input for main menu option

IF user input is 0:
    SAVE products list to products.csv
    SAVE couriers list to couriers.csv
    SAVE orders list to order.csv
    EXIT app

# products menu
ELSE IF user input is 1:
    PRINT product menu options
    GET user input for product menu option

    IF user inputs 0:
        RETURN to main menu

    ELSE IF user input is 1:
        PRINT products list

# WEEK 4 UPDATE
ELSE IF user input is 2:
    # CREATE new product

    GET user input for product name
    GET user input for product price
    CREATE new product dictionary with above properties
    APPEND product dictionary to products list

# WEEK 4 UPDATE
ELSE IF user input is 3:
    # STRETCH GOAL – UPDATE existing product

    PRINT products with their index values
    GET user input for product index value

    FOR EACH key-value pair in selected product:
        GET user input for updated property
        IF user input is blank:
            do not update this property and skip
        ELSE:

```

update the property value with user input

ELSE IF user input is 4:

STRETCH GOAL – DELETE product

PRINT products list

GET user input for product index value

DELETE product at index in products list

couriers menu

ELSE IF user input is 2:

PRINT courier menu options

GET user input for courier menu option

IF user inputs 0:

RETURN to main menu

ELIF user inputs 1:

PRINT couriers list

WEEK 4 UPDATE

ELSE IF user input is 2:

CREATE new courier

GET user input for courier name

GET user input for courier phone number

CREATE new courier dictionary with above properties

APPEND courier dictionary to courier list

WEEK 4 UPDATE

ELSE IF user input is 3:

STRETCH GOAL – UPDATE existing courier

PRINT courier with their index values

GET user input for courier index value

FOR EACH key-value pair in selected courier:

GET user input for updated property

IF user input is blank:

do not update this property and skip

ELSE:

update the property value with user input

ELSE IF user input is 4:

STRETCH GOAL – DELETE courier

PRINT courier list

GET user input for courier index value

DELETE courier at index in courier list

orders menu

ELSE IF user input is 3:

IF user input is 0:

RETURN to main menu

ELSE IF user input is 1:

PRINT orders dictionary

WEEK 4 UPDATE

ELSE IF user input is 2:

GET user input for customer name

GET user input for customer address

GET user input for customer phone number

```
PRINT products list with its index values
GET user inputs for comma-separated list of product index values
CONVERT above user input to list of integers
```

```
PRINT couriers list with index value for each courier
GET user input for courier index to select courier
SET order status to be 'PREPARING'
```

```
CREATE new order dictionary with above properties
APPEND order to orders list
```

```
ELSE IF user input is 3:
```

```
    # UPDATE existing order status
```

```
    PRINT orders list with its index values
    GET user input for order index value
```

```
    PRINT order status list with index values
    GET user input for order status index value
    UPDATE status for order
```

```
ELSE IF user input is 4:
```

```
    # STRETCH – UPDATE existing order
```

```
    PRINT orders list with its index values
    GET user input for order index value
```

```
    FOR EACH key-value pair in selected order:
```

```
        GET user input for updated property
```

```
        IF user input is blank:
```

```
            do not update this property
```

```
        ELSE:
```

```
            update the property value with user input
```

```
ELSE IF user input is 5:
```

```
    # STRETCH GOAL – DELETE courier
```

```
    PRINT orders list
    GET user input for order index value
    DELETE order at index in order list
```