

# Mini Project Week 3

So far we've been using one-dimensional lists of data, however, this won't work for orders. We need to store more information such as the customer's name, address and phone number, as well as the status of the order, the courier etc. To solve this we'll use a two-dimensional data structure, a `dictionary`. We won't be able to read/write this structure to text file anymore, but we'll fix this later. For now we'll also skip adding products to the order.

We'll also write a unit-test that covers the update order status functionality.

## 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

## Spec

- A `product` should just be a `string` containing its name, i.e: `"Coke Zero"`
- A list of `products` should be a list of `strings`, i.e: `["Coke Zero"]`
- A `courier` should just be a `string` containing its name, i.e: `"John"`
- A list of `couriers` should be a list of `strings`, i.e: `["John"]`
- 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,
  "status": "preparing"
}
```

- A list of `orders` should be a list of `dicts`, i.e: `[{...},{...}]`
- Data should be persisted to a `.txt` file on a new line for each `courier` or `product`, i.e:

```
John
Claire
```

## Pseudo Code

- START APP
- LOAD COURIERS AND PRODUCTS FROM TXT FILE
- SHOW LIST OF OPTIONS TO USER AND ACCEPT NUMERICAL INPUT
- IF USER ENTERS 0 THEN SAVE APP STATE TO TXT FILES AND EXIT APP
- IF USER ENTERS 1 THEN SHOW PRODUCT MENU
  - IF USER ENTERS 0 RETURN TO MAIN MENU
  - IF USER ENTERS 1 PRINT OUT PRODUCTS TO SCREEN
  - IF USER ENTER 2 CREATE NEW PRODUCT
  - ASK USER FOR THE NAME OF THE PRODUCT
  - APPEND THIS TO THE LIST OF PRODUCTS
  - *STRETCH* IF USER ENTERS 3 UPDATE PRODUCT
  - ASK USER TO SELECT A PRODUCT TO UPDATE
  - ASK USER FOR NEW NAME OF PRODUCT
  - REPLACE PRODUCT AT SELECTED IDX WITH NEW NAME
  - *STRETCH* IF USER ENTERS 4 DELETE PRODUCT
  - ASK USER TO SELECT A PRODUCT TO DELETE
  - REMOVE THIS ITEM FROM THE PRODUCTS LIST
- IF USER ENTERS 2 THEN SHOW COURIER MENU
  - IF USER ENTERS 0 RETURN TO MAIN MENU
  - IF USER ENTERS 1 PRINT OUT COURIERS TO SCREEN
  - IF USER ENTER 2 CREATE NEW COURIER
  - ASK USER FOR THE NAME OF THE COURIER
  - APPEND THIS TO THE LIST OF COURIERS
  - *STRETCH* IF USER ENTERS 3 UPDATE COURIER
  - ASK USER TO SELECT A COURIER TO UPDATE OR 0 TO CANCEL
  - ASK USER FOR NEW NAME OF COURIER
  - REPLACE COURIER AT SELECTED IDX WITH NEW NAME
  - *STRETCH* IF USER ENTERS 4 DELETE COURIER

- ASK USER TO SELECT A COURIER TO DELETE OR 0 TO CANCEL
- REMOVE THIS ITEM FROM THE COURIERS LIST
- IF USER ENTERS 3 THEN SHOW ORDER MENU
  - IF USER ENTERS 0 RETURN TO MAIN MENU
  - IF USER ENTERS 1 PRINT OUT ORDERS TO SCREEN
  - IF USER ENTER 2 CREATE NEW ORDER
  - ASK USER FOR THE NAME OF THE CUSTOMER
  - ASK USER FOR THE ADDRESS OF THE CUSTOMER
  - ASK USER FOR THE PHONE OF THE CUSTOMER
  - ASK THE USER TO SELECT A COURIER FROM THE LIST
  - SET THE DEFAULT ORDER STATUS TO BE PREPARING
  - APPEND THE NEW ORDER TO THE LIST OF ORDERS
  - IF USER ENTERS 3 UPDATE ORDER STATUS
  - ASK USER TO SELECT AND ORDER TO UPDATE OR 0 TO CANCEL
  - ASK USER TO SELECT A NEW STATUS
  - UPDATE THE ORDER
  - *STRETCH* IF USER ENTERS 4 UPDATE ORDER
  - ASK USER TO SELECT AN ORDER TO UPDATE OR 0 TO CANCEL
  - FOR EACH ORDER PROPERTY
    - ASK USER FOR UPDATE DATA OR LEAVE BLANK TO SKIP
    - UPDATE THE ORDER PROPERTY IF NOT BLANK
  - *STRETCH* IF USER ENTERS 5 DELETE ORDER
  - ASK USER TO SELECT AN ORDER TO DELETE OR 0 TO CANCEL
  - REMOVE THIS ITEM FROM THE ORDERS LIST