

Mini Project Week 5

CSV is great, but there is a better option. Let's store our couriers, and products in a database, we'll leave orders as they are for now.

An order's courier, and items properties currently use indexes to reference these entities, we're going to change this to use ids instead.

Remember to update unit-tests.

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
- *BONUS* track my product inventory
- *BONUS* import/export my entities in CSV format

Spec

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

```
{
  "id": 4,
  "name": "Coke Zero",
  "price": 0.8
}
```

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

```
{
  "id": 2,
  "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 ID
  "status": "preparing",
  "items": [1, 3, 4] // Product IDs
}
```

- Data should be persisted to a `.csv` file on a new line for each `order`, i.e:

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

Pseudo Code

- START APP
- LOAD ORDERS FROM CSV FILE
- SELECT ALL FROM PRODUCTS AND COURIERS TABLE AND CACHE
- SHOW LIST OF OPTIONS TO USER AND ACCEPT NUMERICAL INPUT
- IF USER ENTERS 0 THEN SAVE ORDERS TO CSV FILE AND EXIT APP
- IF USER ENTERS 1 THEN SHOW PRODUCT MENU
 - IF USER ENTERS 0 RETURN TO MAIN MENU
 - IF USER ENTERS 1
 - SELECT ALL FROM PRODUCTS TABLE AND CACHE
 - PRINT OUT PRODUCTS TO SCREEN
 - IF USER ENTER 2 CREATE NEW PRODUCT

- ASK USER FOR THE NAME OF THE PRODUCT
- ASK USER FOR THE PRICE OF THE PRODUCT
- INSERT INTO PRODUCTS TABLE
- UPDATE CACHED PRODUCTS
- *STRETCH* IF USER ENTERS 3 UPDATE PRODUCT
- ASK USER TO SELECT A PRODUCT TO UPDATE OR 0 TO CANCEL
- FOR EACH PRODUCT PROPERTY
 - ASK USER FOR UPDATED DATA OR LEAVE BLANK TO SKIP
 - UPDATE COLUMN IN DB IF NOT BLANK
 - UPDATE CACHED PRODUCTS
- *STRETCH* IF USER ENTERS 4 DELETE PRODUCT
- ASK USER TO SELECT A PRODUCT TO DELETE OR 0 TO CANCEL
- DELETE ROW FROM PRODUCTS TABLE
- UPDATE CACHED PRODUCTS
- 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
 - ASK USER FOR THE PHONE OF THE COURIER
 - INSERT INTO THE COURIERS TABLE
 - UPDATE CACHED COURIERS
 - *STRETCH* IF USER ENTERS 3 UPDATE COURIER
 - ASK USER TO SELECT A COURIER TO UPDATE OR 0 TO CANCEL
 - FOR EACH COURIER PROPERTY
 - ASK USER FOR UPDATED DATA OR LEAVE BLANK TO SKIP
 - UPDATE COLUMNS IN COURIERS TABLE IF NOT BLANK
 - UPDATE CACHED COURIERS
 - *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 TABLE
 - UPDATE CACHED COURIERS
- 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 USER TO SELECT FROM THE PRODUCT LIST UNTIL 0 TO CANCEL
 - SET ORDER PRODUCTS TO BE A LIST OF PRODUCT IDS
 - ASK THE USER TO SELECT A COURIER FROM THE LIST
 - SET ORDER COURIER TO BE A COURIER ID
 - 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 AN ORDER TO UPDATE OR 0 TO CANCEL
 - ASK USER TO SELECT A NEW STATUS FROM A LIST OF STATUSES
 - 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 UPDATED 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