

Background

We like coffee.

So we built an app to fetch coffee for people from our favourite barista.

The app keeps track of coffee ordered; what the balance is for each user; what users have paid for already; and what is still owed.

Guideline

- Clean, readable, production quality code; would we want to work with your code as part of a bigger codebase?
- Good object modelling and design decisions. We are looking for an object-oriented solution, even if you think procedural code would make more sense for this problem.
- Extensible code; adding features will be another exercise when you come back in person.
- Good use of C# idioms.
- Solid testing approach _(hint - you should write more unit tests than what has been provided)_
- Use Git (a private repo please)!
- Commit small changes often so we can see your approach and progress.

Data

Price - provided by our barista. Has details of what beverages are available, and what their prices are.

Order - list of beverages ordered by users of the app.

Payments - list of payments made by users paying for items they have purchased.

Requirements

- Load the list of prices
- Load the orders
 - Calculate the total cost of each user's orders
- Load the payments
 - Calculate the total payment for each user
 - Calculate what each user now owes
- Return a JSON string containing the results of this work.

Tasks

- 1) Load data - Input JSON
 - List of prices
 - List of orders
 - List of payments
- 2) Calculate - Order cost
 - The total cost of each user order
- 3) Calculate - Total payments
 - Total payments for each user
- 4) Calculate - User total spent
 - Total owned by each user
- 5) Output - Output JSON
 - Create a JSON string with results from calculations