# Backend Design

## Classes

### Item

**Attributes**

ID

Name

Price

Type

**Methods**

Get and set methods

### Basket

**Attributes**

List of items

**Methods**

Add item to basket

Remove item from basket

Total cost

Print basket

### Customer

**Attributes**

Customer ID

First name

Last name

**Methods**

Getters and setters

### Interface

**Methods**

Select options

Send JSON

Receive JSON

## NuGet Packages

Newtonsoft JSON

Dapper

System.configuration.ConfigurationManager

System.Data.SQLite.Core

## Behaviour

Interface

When the user loads up the menu page, the server should receive JSON that contains an operation and a sub-operation, the first operation being that we want to print out a menu and the second operation being what type of menu we are going to retrieve from the server e.g., Mains, snacks, or drinks. Once we have pulled the items from the database, we will send it back to the frontend

After that we will wait for the client to send requests that have operations in the JSON strings.

When the user adds something to their basket it will send over an operation and a item id, we use this id to get the item from the database and the add it to a list In the backend and the send it over to the front end.

Once the user loads up the basket page, we will send a request to do few operations, the first being to order the basket in order of price and then finding out how many meal deals there are inside the basket and the second being to calculate the total cost. Once this is done, we will create the necessary amount of meal deal objects and then add them to another basket which we will send back to the front end.

Once the user checks out of the basket page they will be send to the log in page where they will have to login. This will be validated and verified in the front end but after they have logged in their details will be send to the backend in which we will create a new id and store them in the database.

Finally, they will be send to the order confirmation page in which the user will see their final order.