TECHNICAL DESIGN

TEAM ESPRESSO DELIVERY

(DION GREEN, TREVOR GREEN, DOVE RAY, ADELE ROUSSEAU)

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| JSON EXAMPLE FOR CUSTOMER DATA

1) Example Customer JSON File

```
"Customers": {
 "Anonymous": {
  "FirstName": "Anonymous",
  "LastName": "Anonymous",
  "Phone": "Anonymous",
  "RewardPointsBalance": 0,
  "Orders": []
 },
 "678-884-4302": {
  "FirstName": "Charles",
  "LastName": "Winter",
  "Phone": "678-884-4302",
  "RewardPointsBalance": 0,
  "Orders": []
 },
 "770-893-5004": {
  "FirstName": "Jack",
  "LastName": "Stevenson",
  "Phone": "770-893-5004",
  "RewardPointsBalance": 108,
  "Orders": [
```

```
{
 "OrderID": 1,
 "DateTime": "2022-10-22 15:33:27",
 "Subtotal": 10.25,
 "Tax": 0.62,
 "Total": 10.87,
 "PointsEarned": 108,
 "PaymentMethod": "Card",
 "PaymentDetails": "9384",
 "Drinks": [
   "Name": "Latte",
   "BasePrice": 4.00,
   "TotalPrice": 6.75,
   "Customizations": "Oat Milk:$1.50, 1 Extra Shot:$1.25"
  },
   "Name": "Coffee",
   "BasePrice": 2.50,
   "TotalPrice": 3.50,
   "Customizations": "Large:$1.00, Whole Milk:$0.00, 1 Sugar:$0.00"
  }
 ]
```

```
},
"678-891-7784": {
 "FirstName": "Hannah",
 "LastName": "Copeland",
 "Phone": "678-891-7784",
 "RewardPointsBalance": 2,
 "Orders": [
  {
    "OrderID": 2,
   "DateTime": "2022-10-30 11:27:53",
   "Subtotal": 6.75,
   "Tax": 0.41,
   "Total": 7.16,
   "PaymentMethod": "Card",
   "PaymentDetails": "8679",
   "PointsEarned": 71,
   "Drinks": [
     {
      "Name": "Latte",
      "BasePrice": 4.00,
      "TotalPrice": 3.00,
      "Customizations": "Small:-$1.00, Non-Fat Milk:$0.00, Very Hot:$0.00"
    },
      "Name": "Espresso",
```

```
"BasePrice": 2.50,
   "TotalPrice": 3.00,
   "Customizations": "1 Extra Shot:$1.25"
  }
 ]
},
 "OrderID": 3,
 "DateTime": "2022-11-01 10:52:06",
 "Subtotal": 6.50,
 "Tax": 0.39,
 "Total": 6.89,
 "PaymentMethod": "Rewards Points",
 "PaymentDetails": "Redeemed 69 points.",
 "PointsEarned": 0,
 "Drinks": [
   "Name": "Iced Matcha Green Tea Latte",
    "BasePrice": 4.00,
   "TotalPrice": 5.00,
   "Customizations": "Large:$1.00, Whole Milk:$0.00"
  },
   "Name": "Coffee",
   "BasePrice": 2.50,
```

```
"TotalPrice": 2.00,

"Customizations": "Small:-$0.50, Room for Cream:$0.00"

},

{

"Name": "Iced Water",

"BasePrice": 0,

"TotalPrice": 0,

"Customizations": ""

}

]

}
```

2) Customer JSON Data Description:

Object.[Key].Value	C# Data Type	Description
Customers{}.Anonymous{}.CustomerID	null	Anonymous
Customers{}.Anonymous{}.FirstName	null	Anonymous
Customers{}.Anonymous{}.LastName	null	Anonymous

Customers{}.Anonymous{}.Phone	null	Anonymous
Customers{}.Anonymous{}.RewardsPoint sBalance	int	Anonymous
Customers{}.Anonymous{}.Orders[]	null	Anonymous
Customers{}.678-884-4302{}.FirstName	string	Path to first name of customer 678-884-4302
Customers{}.678-884-4302{}.LastName	string	Path to last name of customer 678-884-4302
Customers{}.678-884-4302{}.Phone	string	Path to the phone of customer 678-884-4302
Customers{}.678-884-4302{}.RewardsPointsBalance	int	Path to number of rewards points for customer 678-884-4302
Customers {}.678-884-4302{}.Orders[]	Arr[]	Path to the array of orders from customer 678-884-4302
Customers{}.770-893-5004{}.FirstName	string	Path to first name of customer 770-893-5004
Customers{}.770-893-5004{}.LastName	string	Path to last name of customer 770-893-5004
Customers{}.770-893-5004{}.Phone	string	Path to the phone of customer 770-893-5004
Customers{}.770-893- 5004{}.RewardsPointsBalance	int	Path to number of rewards points for customer 770-893-5004
Customers{}.770-893- 5004{}.Orders[].{}.OrderID	int	Path to OrderID of an order placed by customer 770-893-5004

Customers{}.770-893-5004{}.Orders[].{}.DateTime	string	Path to Datetime of an order placed by customer 770-893-5004
Customers{}.770-893- 5004{}.Orders[].{}.Subtotal	decimal	Path to the subtotal of an order placed by customer 770-893-5004
Customers{}.770-893-5004{}.Orders[].{}. Tax	decimal	Path to the tax of an order placed by customer 770-893-5004
Customers{}.770-893-5004{}.Orders[].{}. Total	decimal	Path to the order total of an order placed by customer 770-893-5004
Customers{}.770-893-5004{}.Orders[].{}. PointsEarned	int	Path to the number of rewards points earned from an order placed by customer 770-893-5004
Customers{}.770-893-5004{}.Orders[].{}. PaymentMethod	string	Path to the payment method used for an order placed by customer 770-893-5004
Customers{}.770-893-5004{}.Orders[].{}. PaymentDetails	int	Path to the Payment Details/ Information for an order placed by customer 770-893-5004
Customers{}.770-893-5004{}.Orders[].{}. Drinks[].{}.Name	string	Path to the name of the first drink for an order placed by customer 770-893-5004
Customers{}.770-893-5004{}.Orders[].{}. Drinks[].{}.BasePrice	decimal	Path to the base price of the first drink for an order placed by customer 770-893-5004
Customers{}.770-893-5004{}.Orders[].{}. Drinks[].{}.TotalPrice	decimal	Path to the total price of the first drink for an order placed by customer 770-893-5004

Customers{}.770-893-5004{}.Orders[].{}. Drinks[].{}.Customizations	string	Path to the list of customizations for the first drink for an order placed by customer 770-893-5004
Customers{}.770-893-5004{}.Orders[].{}. Drinks[].{}.Name	string	Path to the name of the second drink for an order placed by customer 770-893-5004
Customers{}.770-893-5004{}.Orders[].{}. Drinks[].{}.BasePrice	decimal	Path to the base price of the second drink for an order placed by customer 770-893-5004
Customers{}.770-893-5004{}.Orders[].{}. Drinks[].{}.TotalPrice	decimal	Path to the total price of the first drink for an order placed by customer 770-893-5004
Customers{}.770-893-5004{}.Orders[].{}. Drinks[].{}.Customizations	string	Path to the list of customizations for the second drink for an order placed by customer 770-893-5004
Customers{}.678-891-7784{}.FirstName	string	Path to first name of customer 678-891-7784
Customers{}.678-891-7784{}.LastName	string	Path to last name of customer 678-891-7784
Customers{}.678-891-7784{}.Phone	string	Path to the phone of customer 678-891-7784
Customers{}.678-891- 7784{}.RewardsPointsBalance	int	Path to number of rewards points for customer 678-891-7784
Customers{}.678-891- 7784{}.Orders[].{}.OrderID	int	Path to OrderID of an order placed by customer 678-891-7784

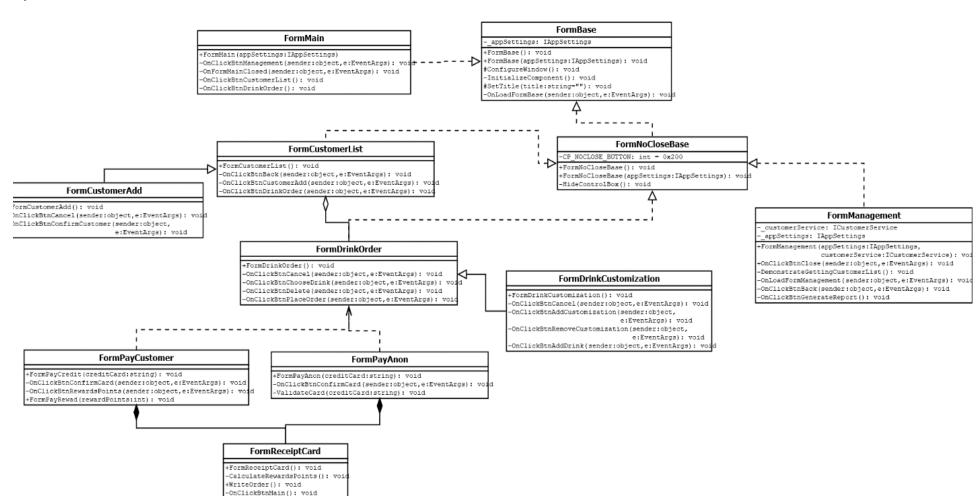
Customers{}.678-891-7784{}.Orders[].{}.DateTime	string	Path to Datetime of an order placed by customer 678-891-7784
Customers{}.678-891- 7784{}.Orders[].{}.Subtotal	decimal	Path to the subtotal of an order placed by customer 678-891-7784
Customers{}.678-891-7784{}.Orders[].{}. Tax	decimal	Path to the tax of an order placed by customer 678-891-7784
Customers{}.678-891-7784{}.Orders[].{}. Total	decimal	Path to the order total of an order placed by customer 678-891-7784
Customers{}.678-891-7784{}.Orders[].{}. PointsEarned	int	Path to the number of rewards points earned from an order placed by customer 678-891-7784
Customers{}.678-891-7784{}.Orders[].{}. PaymentMethod	string	Path to the payment method used for an order placed by customer 678-891-7784
Customers{}.678-891-7784{}.Orders[].{}. PaymentDetails	int	Path to the Payment Details/ Information for an order placed by customer 678-891-7784
Customers{}.678-891-7784{}.Orders[].{}. Drinks[].{}.Name	string	Path to the name of the first drink for an order placed by customer 678-891-7784
Customers{}.678-891-7784{}.Orders[].{}. Drinks[].{}.BasePrice	decimal	Path to the base price of the first drink for an order placed by customer 678-891-7784
Customers{}.678-891-7784{}.Orders[].{}. Drinks[].{}.TotalPrice	decimal	Path to the total price of the first drink for an order placed by customer 678-891-7784

Customers{}.678-891-7784{}.Orders[].{}. Drinks[].{}.Customizations	string	Path to the list of customizations for the first drink for an order placed by customer 678-891-7784
Customers{}.678-891-7784{}.Orders[].{}. Drinks[].{}.Name	string	Path to the name of the second drink for an order placed by customer 678-891-7784
Customers{}.678-891-7784{}.Orders[].{}. Drinks[].{}.BasePrice	decimal	Path to the base price of the second drink for an order placed by customer 678-891-7784
Customers{}.678-891-7784{}.Orders[].{}. Drinks[].{}.TotalPrice	decimal	Path to the total price of the first drink for an order placed by customer 678-891-7784
Customers{}.678-891-7784{}.Orders[].{}. Drinks[].{}.Customizations	string	Path to the list of customizations for the second drink for an order placed by customer 678-891-7784
Customers{}.678-891-7784{}.Orders[].{}. Drinks[].{}.Name	string	Path to the name of the third drink for an order placed by customer 678-891-7784
Customers{}.678-891-7784{}.Orders[].{}. Drinks[].{}.BasePrice	decimal	Path to the base price of the third drink for an order placed by customer 678-891-7784
Customers{}.678-891-7784{}.Orders[].{}. Drinks[].{}.TotalPrice	decimal	Path to the total price of the third drink for an order placed by customer 678-891-7784
Customers{}.678-891-7784{}.Orders[].{}. Drinks[].{}.Customizations	string	Path to the list of customizations for the third drink for an order placed by customer 678-891-7784

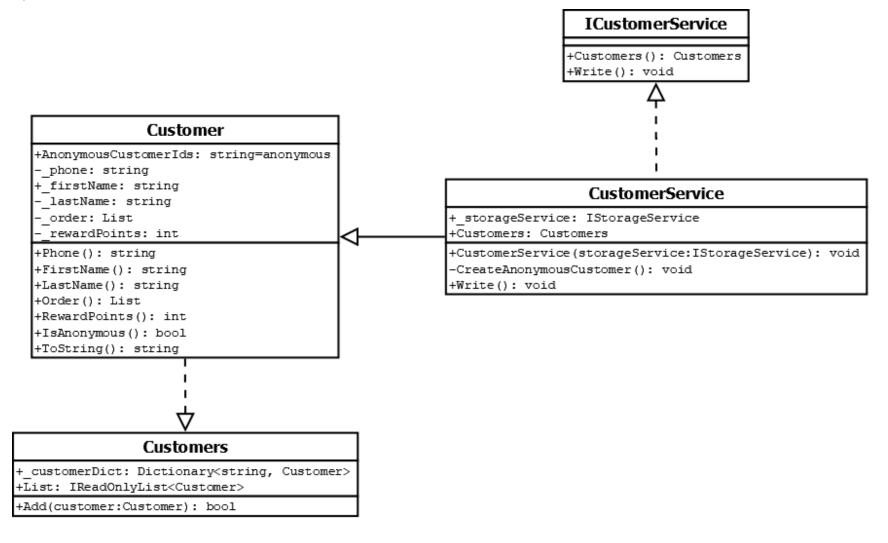
|| UML CLASS DESIGN DIAGRAMS

FormReceiptRewardsPoints +FormReceiptRewardsPoints(): void -DeductRewardsPoints(): void +OnClickBtnMain(): void

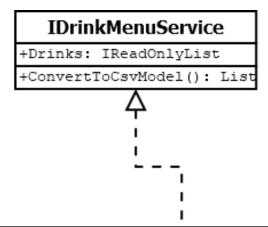
1) Forms



2) Customer



3) Drink Menu



DrinkMenuService

+Drinks: IReadOnlyList

+ storageService: IStorageService

+DrinkMenuService(): void

-SortDrinkMenuList(drinkMenuList:List): List

-LoadDrinkMenuFromJsonFile(): List

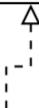
+ConvertToCsvModel(): List

+ConfigureService(services:IServiceCollection): voi

4) CsvExtract

ICsvExtractService

+ConvertToCsv(listToConvert:IEnumerable): strin +WriteCsvFile(listToConvert:IEnumerable, fullPath:string): void



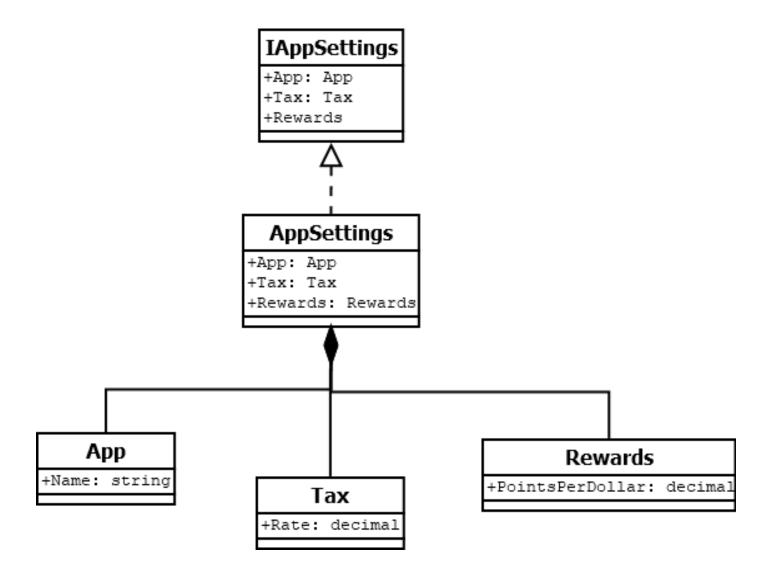
CsvExtractService

+WriteCsvFile(listToConvert:IEnumerable, fullPath:string): void

+ConvertToCsv(listToConvert:IEnumerable): string

+ConfigureService(services:IServiceCollection): void

5) Configuration



| ERD DATA MODEL

