CAFÉ 404
TECHNICAL DESIGN

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JSON Example for Customer Data

Example Customer JSON File


```
{
  "Customers": {
    "anonymous": {
      "FirstName": "anonymous",
      "LastName": "anonymous",
      "Phone": "anonymous",
      "RewardPoints": 0
    },
    "404-444-5555": {
      "FirstName": "Mason",
      "LastName": "Sherrill",
      "Phone": "404-444-5555",
      "RewardPoints": 0,
      "OrderHistory": []
    },
    "423-908-2987": {
      "FirstName": "Aly",
      "LastName": "Hussein",
      "Phone": "423-908-2987",
      "RewardPoints": 70,
      "OrderHistory": [
        {
          "CustomerID": "423-908-2987",
          "DateTime": "12/4/2015 12:27:15",
          "Tax": 0.45,
          "Subtotal": 7.50,
          "Total": 7.95,
          "PaymentMethod": "Credit Card",
          "Drinks": [
            {
              "Name": "Latte",
              "Customizations": "Foam B | Lots of Foam,Creamer D | Almond
Milk,Sweetener C | 1 Sweet'N Low'",
              "Total": 5.50
```

```
        },
        {
          "Name": "Coffee",
          "Customizations": "Size A | Small,Creamer B | Non-Fat Milk,Sweetener
A | 1 Sugar",
          "Total": 2.00
        }
       ]
      }
     ]
   },
   "564-825-8268": {
    "FirstName": "Joel",
    "LastName": "Juarez",
    "Phone": "564-825-8268",
    "RewardPoints": 140,
    "OrderHistory": [
     {
      "CustomerID": "564-825-8268",
      "DateTime": "12/24/2022 16:31:43",
      "Tax": 0.45,
      "Subtotal": 7.50,
      "Total": 7.95,
      "PaymentMethod": "Reward Points",
      "Drinks": [
       {
        "Name": "Latte",
        "Customizations": "Foam B | Lots of Foam,Creamer D | Almond
Milk,Sweetener C | 1 Sweet'N Low'",
        "Total": 5.50
       },
       {
        "Name": "Coffee",
        "Customizations": "Size A | Small,Creamer B | Non-Fat Milk,Sweetener
A | 1 Sugar",
        "Total": 2.00
       }
      ]
     },
```

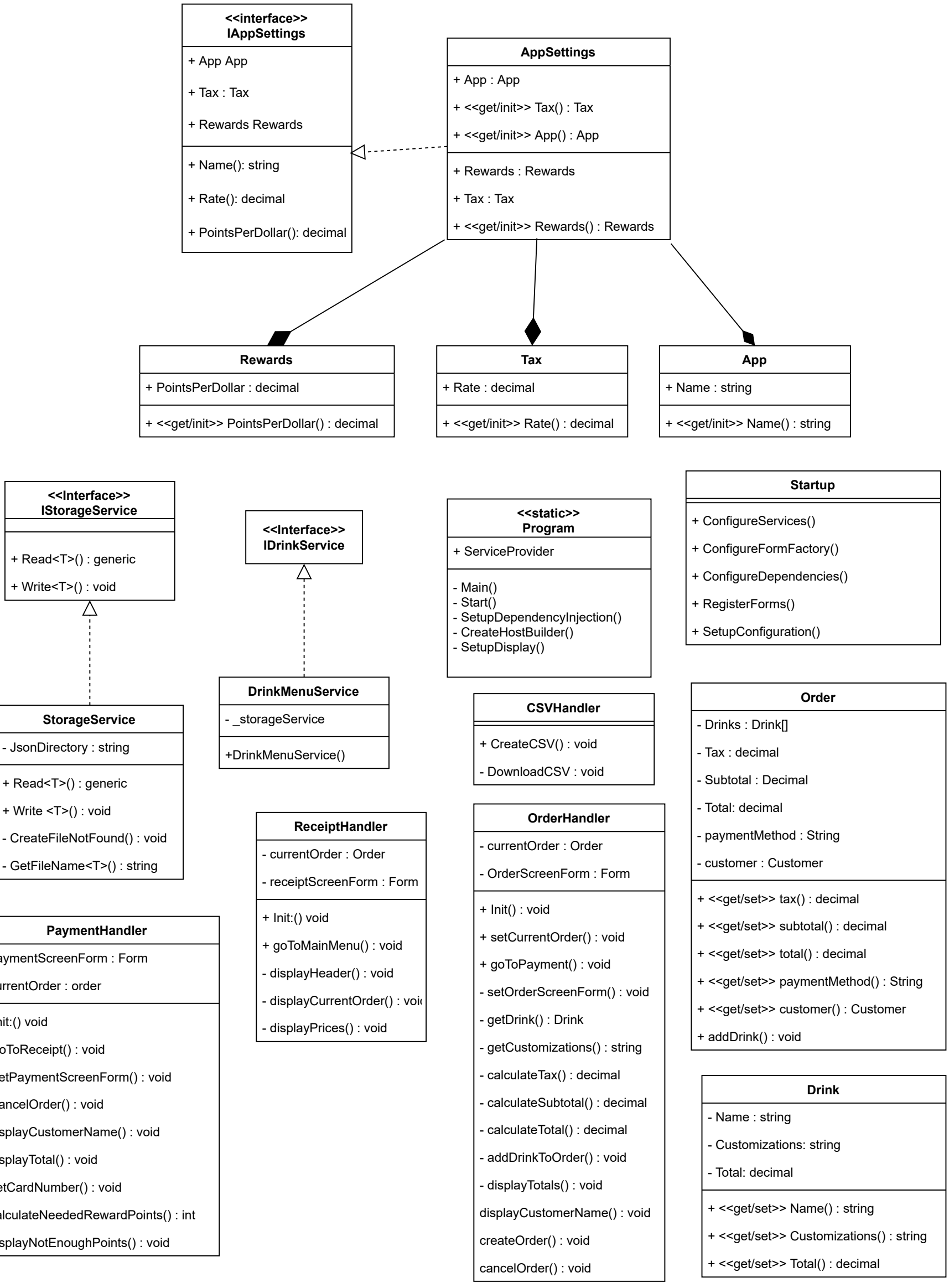
```
      {
        "CustomerID": "564-825-8268",
        "DateTime": "12/27/2022 07:12:34",
        "Tax": 0.45,
        "Subtotal": 7.50,
        "Total": 7.95,
        "PaymentMethod": "Credit Card",
        "Drinks": [
          {
            "Name": "Latte",
            "Customizations": "Foam B | Lots of Foam,Creamer D | Almond
Milk,Sweetener C | 1 Sweet'N Low'",
            "Total": 5.50
          },
          {
            "Name": "Coffee",
            "Customizations": "Size A | Small,Creamer B | Non-Fat Milk,Sweetener
A | 1 Sugar",
            "Total": 2.00
          }
        ]
      }
    ]
  }
}
```

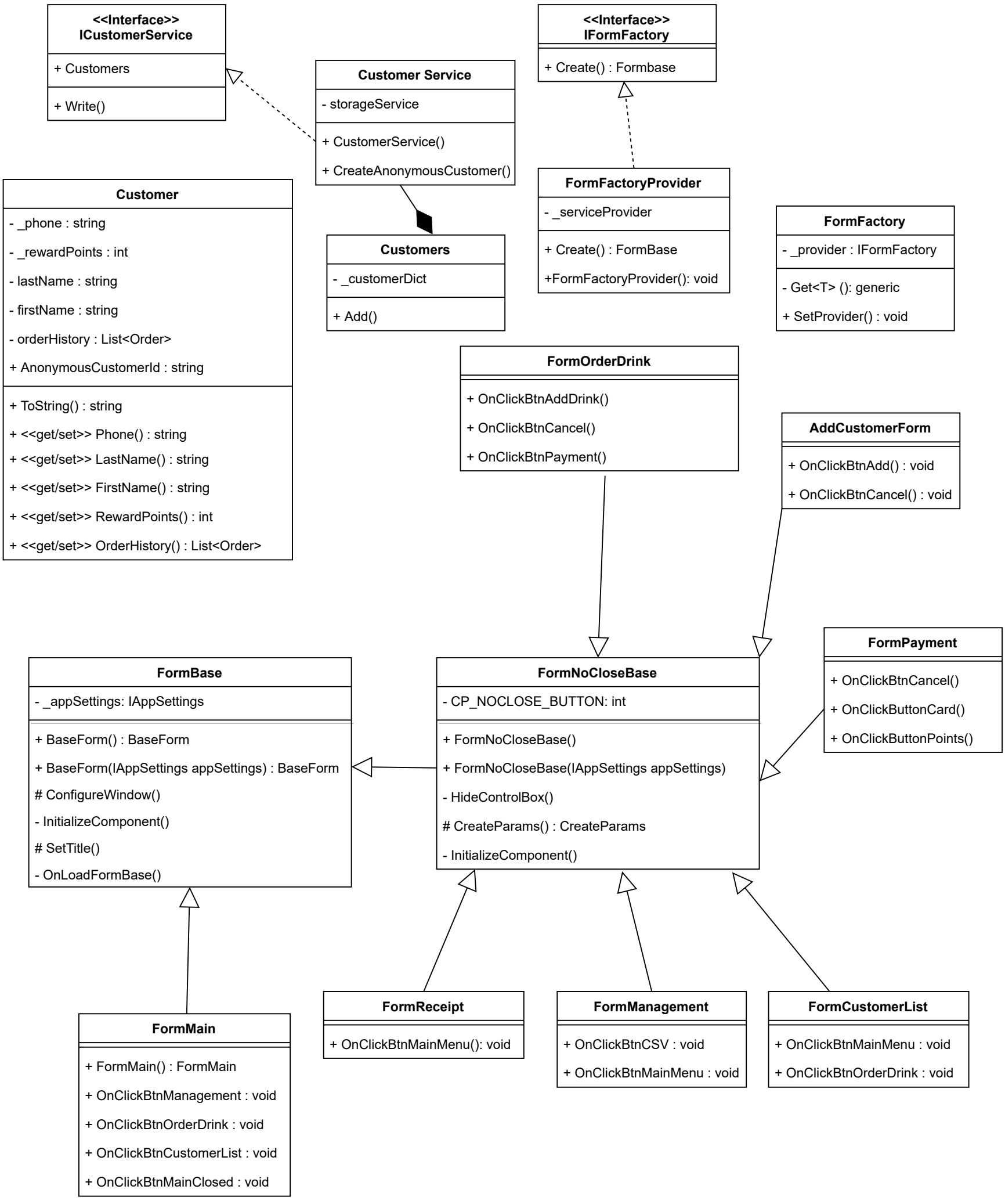
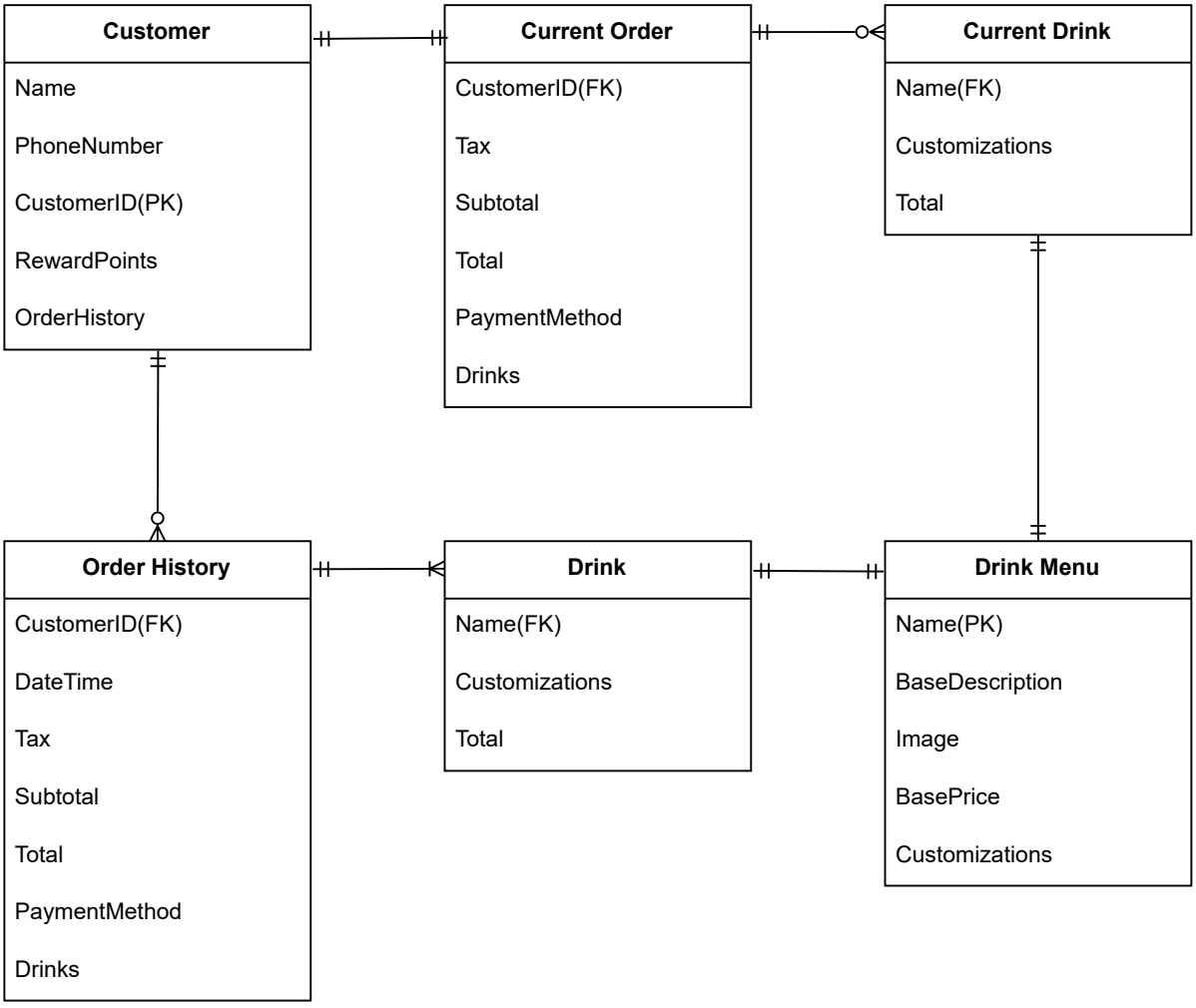
Customer JSON File Data Description

Field	Description	Path	C# Data Type
Customer	**An array of all the customers.**	**Customer**	**List<Customer>**
LastName	Contains the last name of the customer, used as one of the primary identifiers.	Customer.[key].LastName	String
FirstName	Contains the first name of the customer, used for identification.	Customer.[key].FirstName	String
PhoneNumber	Contains a unique phone number that is used as a primary identifier for each customer.	Customer.[key].Phone	String
Order History	**An array that keeps track of a customer's order.**	**Customer.[key].OrderHistory[]**	**List<Order>**
CustomerID	Keep track of which customer placed the order.	Customer.[key].OrderHistory[index].CustomerID	String
Date	Tracks when an order was placed.	Customer.[key].OrderHistory[index].Date	C# DateTime
Tax	Calculates the tax to be placed on each product.	Customer.[key].OrderHistory[index].Tax	Decimal
Subtotal	Calculates the total of all the drinks in an order before tax is added.	Customer.[key].OrderHistory[index].Subtotal	Decimal
Total	Calculates to total after tax and subtotal are added together.	Customer.[key].OrderHistory[index].Total	Decimal
PaymentMethod	Contains the payment method that was used in the purchase of the order. Can be "Credit Card" or "Reward Points."	Customer.[key].OrderHistory[index].PaymentMethod	String
Drinks	**Drinks which the customers ordered.**	**Customer.[key].OrderHistory[index].Drink[index2]**	**List<Drink>**
Name	The name of the drink that was ordered.	Customer.[key].OrderHistory[index].Drinks[index2.Name]	String
Customizations	Any additional customizations added to the drink	Customer.[key].OrderHistory[index].Drink[index2].Customizations	String
Total	The total of everything that was in the order, from drinks to each customization	Customer.[key].OrderHistory[index].Drink[index2].Total	Decimal

* The [key] used in this diagram would be the customer's phone number

UML Class Design Diagram




<<Interface>>
ICustomerService
+ Customers
+ Write()
Customer Service
- storageService
+ CustomerService()
+ CreateAnonymousCustomer()
<<Interface>>
IFormFactory
+ Create() : Formbase
Customer
- _phone : string
- _rewardPoints : int
- lastName : string
- firstName : string
- orderHistory : List<Order>
+ AnonymousCustomerId : string
+ ToString() : string
+ <<get/set>> Phone() : string
+ <<get/set>> LastName() : string
+ <<get/set>> FirstName() : string
+ <<get/set>> RewardPoints() : int
+ <<get/set>> OrderHistory() : List<Order>
Customers
- _customerDict
+ Add()
FormFactoryProvider
- _serviceProvider
+ Create() : FormBase
+FormFactoryProvider(): void
FormFactory
- _provider : IFormFactory
- Get<T> (): generic
+ SetProvider() : void
FormOrderDrink
+ OnClickBtnAddDrink()
+ OnClickBtnCancel()
+ OnClickBtnPayment()
AddCustomerForm
+ OnClickBtnAdd() : void
+ OnClickBtnCancel() : void
FormPayment
+ OnClickBtnCancel()
+ OnClickButtonCard()
+ OnClickButtonPoints()
FormBase
- _appSettings: IAppSettings
+ BaseForm() : BaseForm
+ BaseForm(IAppSettings appSettings) : BaseForm
# ConfigureWindow()
- InitializeComponent()
SetTitle()
- OnLoadFormBase()
FormNoCloseBase
- CP_NOCLOSE_BUTTON: int
+ FormNoCloseBase()
+ FormNoCloseBase(IAppSettings appSettings)
- HideControlBox()
CreateParams() : CreateParams
- InitializeComponent()
FormMain
+ FormMain() : FormMain
+ OnClickBtnManagement : void
+ OnClickBtnOrderDrink : void
+ OnClickBtnCustomerList : void
+ OnClickBtnMainClosed : void
FormReceipt
+ OnClickBtnMainMenu(): void
FormManagement
+ OnClickBtnCSV : void
+ OnClickBtnMainMenu : void
FormCustomerList
+ OnClickBtnMainMenu : void
+ OnClickBtnOrderDrink : void

Crows Foot ERD Data Model Diagram