Technical Design Document

HIDE Coffee

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Section 1: JSON Example for Customer Data

Section 1A: Example Customer JSON File

```json
{
  "Customers": {
    "Anonymous": {
      "Customer_ID": 0,
      "Customer_FN": "Anonymous",
      "Customer_LN": "Anonymous",
      "Phone": "Anonymous",
      "RewardPoints": 0
    }
  },
  "123-456-7890": {
    "Customer_ID": 1,
    "Customer_FN": "Habeebah",
    "Customer_LN": "Muse",
    "Phone": "123-456-7890",
    "RewardPoints": 10,
    "Sales_History": []
  },
  "098-765-4321": {
    "Customer_ID": 2,
    "Customer_FN": "Duncan",
    "Customer_LN": "Stephan",
    "Phone": "098-765-4321",
    "RewardPoints": 20,
    "Sales_History": [
      {
        "Date/Time": "2022-11-10 13:30:00",
        "Tax": 0.20,
        "Subtotal": 2.00,
        "Total": 2.20,
        "PointEarned": 20,
        "Payment": "Credit",
        "PaymentDetails": "9112",
        "DrinksInOrder": [
          {
            "Drink": "Coffee",
            "BasePrice": 1.00,
            "Customizations": "Sugar:$0.00",
            "Price": 1.00
          },
```

```json
      {
        "Drink": "Coffee",
      "BasePrice": 1.00,
        "Customizations": "Cream:$0.00,Sugar:$0.00",
        "Price": 1.00
      }
    ]
  }
  ]
},
  "102-837-4659": {
    "Customer_ID": 3,
    "Customer_FN": "Ian",
    "Customer_LN": "Chorne",
    "Phone": "102-837-4659",
    "RewardPoints": 60,
    "Sales_History": [
      {
        "Date/Time": "2022-11-08 13:35:00",
        "Tax": 0.30,
        "Subtotal": 3.00,
        "Total": 3.30,
        "PointsEarned": 0,
        "Payment": "RewardPoints",
        "PaymentDetails": "RP",
        "Order_Summary": [
          {
            "Drink": "Chai Latte",
            "BasePrice": 1.00,
            "Customizations": "Sugar:$0.00, Oat Milk:$0.00",
            "Price": 1.00
          },
          {
            "Drink": "Coffee",
            "BasePrice": 1.00,
            "Customizations":"Cream:$0.00, Sugar":$0.00, Espresso
Shot:$1.00",
            "Price": 2.00
          }
        ]
      },
      {

        "Date/Time": "2022-11-09 13:41:00",

        "Tax": 0.30,
```

```
      "Subtotal": 3.00,
      "Total": 3.30,
      "PointsEarned": 0,
      "Payment": "RewardPoints",
      "Payment Details": "RP",
      "DrinksInOrder": [
        {
          "Drink": "Chai Latte",
          "BasePrice": 1.00,
          "Customizations": "Whole Milk:$0.00",
          "Price": 1.00
        },
        {
          "Drink": "Coffee",
          "BasePrice": 1.00,
          "Customizations": "Cream:$0.00, Espresso Shot:$1.00",
          "Price": 2.00
        }
      ]
    }
  ]
 }
}
```

Section 1B: Customer JSON File Data Description

Field	Path	Data Type	Description
key	Customers.[key]	object	Key representing the anonymous customer, or a customer's phone number.
Customer_ID	Customers.[key].Customer_ID	int	Contains customer's id
Customer_FN	Customers.[key].Customer_FN	string	Contains customer's first name
Customer_LN	Customers.[key].Customer_LN	string	Contains customer's last name
Phone	Customers.[key].Phone	string	Contains customer's phone number
RewardPoints	Customers.[key].RewardPoints	int	Contains customer's reward point. If it is the anonymous customer, this value cannot change from 0.
Sales_History	Customers.[key].Sales_History	array	Array for the sales history.
Date/Time	Customers.[key].Sales_History.Date/Time	DateTime	Contains the date and time of order.
Tax	Customers.[key].Sales_History.Tax	decimal	Contains the tax of the order.
Subtotal	Customers.[key].Sales_History.Subtotal	decimal	Contains the subtotal of the order.
Total	Customers.[key].Sales_History.Total	decimal	The total plus tax.
Point Earned	Customers.[key].Sales_History.PointEarned	int	Contains the number of

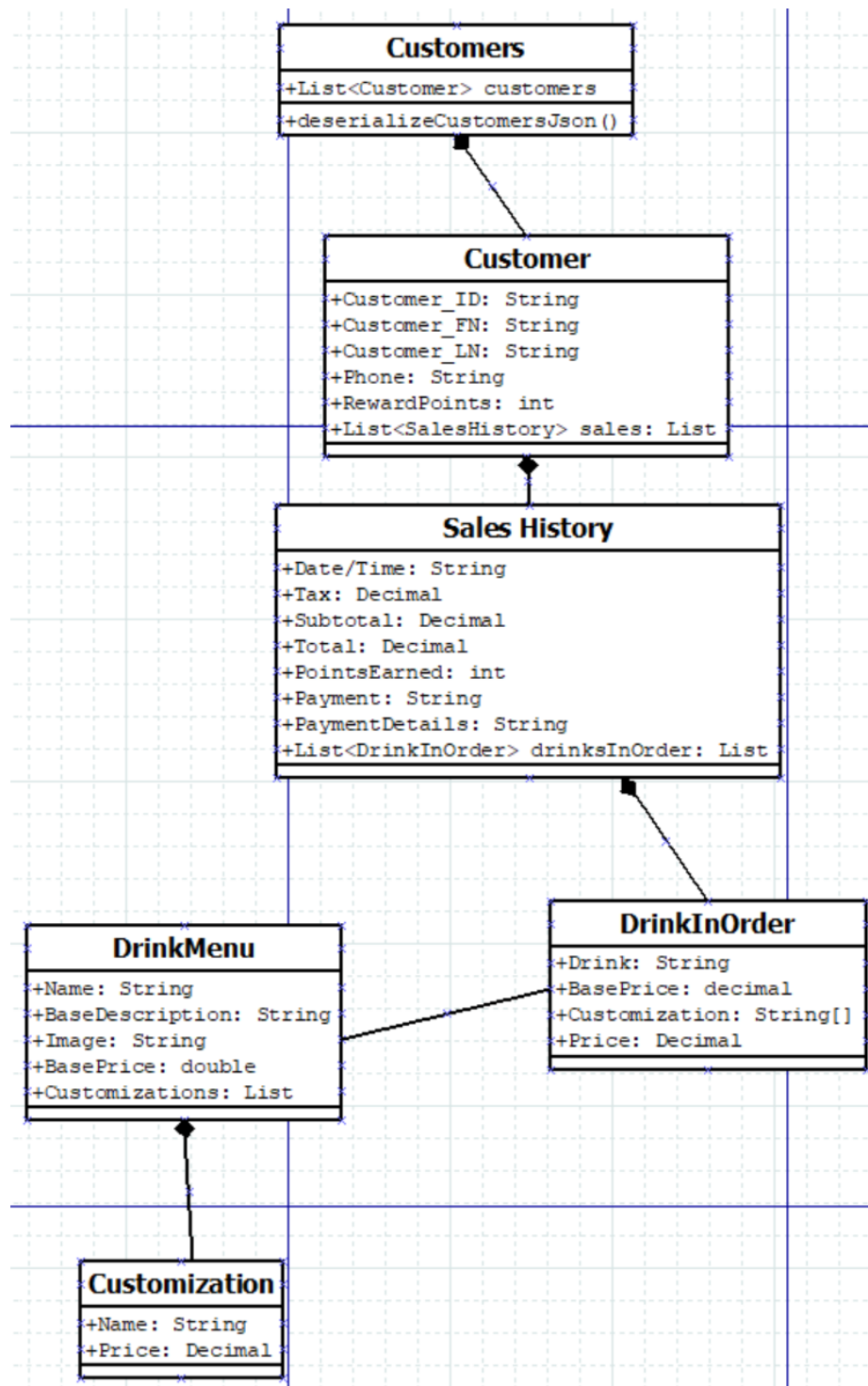|			reward points earned.
Payment	Customers.[key].Sales_History.Payment	string	Contains the payment method
PaymentDetails	Customers.[key].Sales_History.PaymentDetails	string	Contains details of payment method such as last 4 credit card numbers.
DrinksInOrder	Customers.[key].Sales_History.DrinksInOrder	array	Contains previous orders.
Drink	Customers.[key].DrinksInOrder.Drink	string	Contains previously ordered drink.
BasePrice	Customers.[key].DrinksInOrder.BasePrice	decimal	Contains base price of previously ordered drink.
Cutomizations	Customers.[key].DrinksInOrder.Customizations	string	Contains string of customizations of previously order drink.
Price	Customers.[key].DrinksInOrder.Price	decimal	Contains price of previously ordered drinks with customization added.

Section 2: UML Class Design Diagram
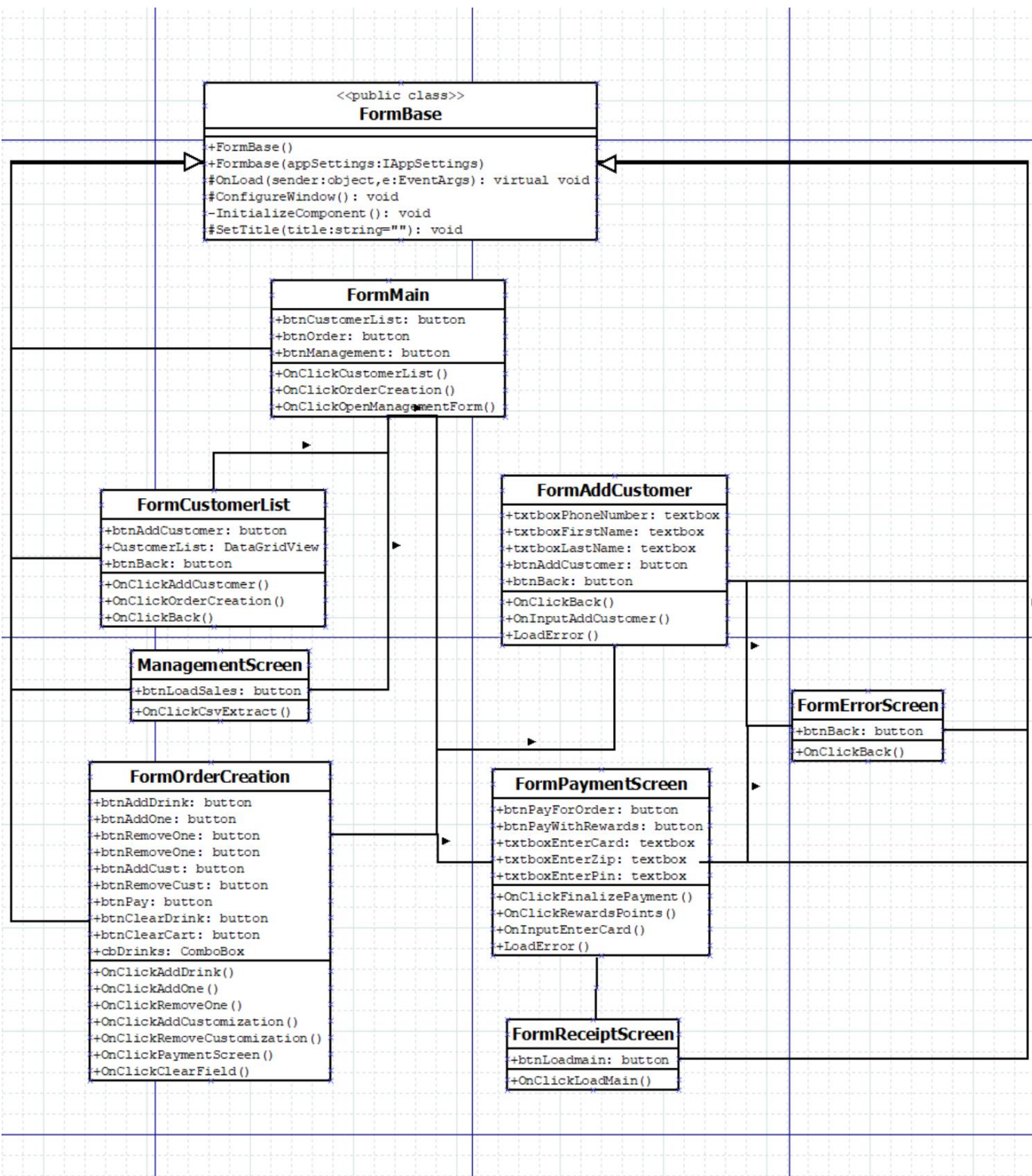

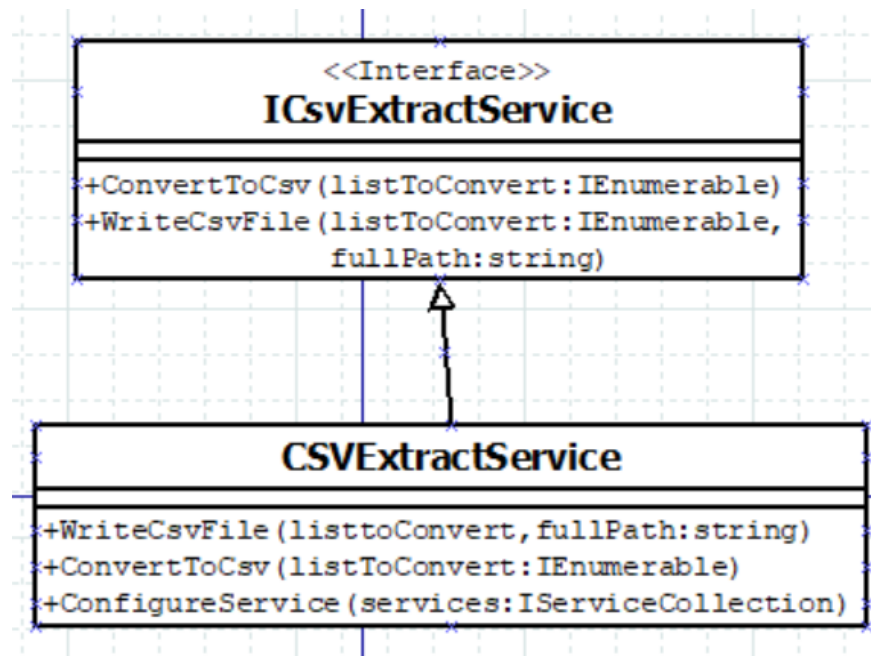*Figure 1: Customers UML Diagram*

Figure 2: Form UML Diagram

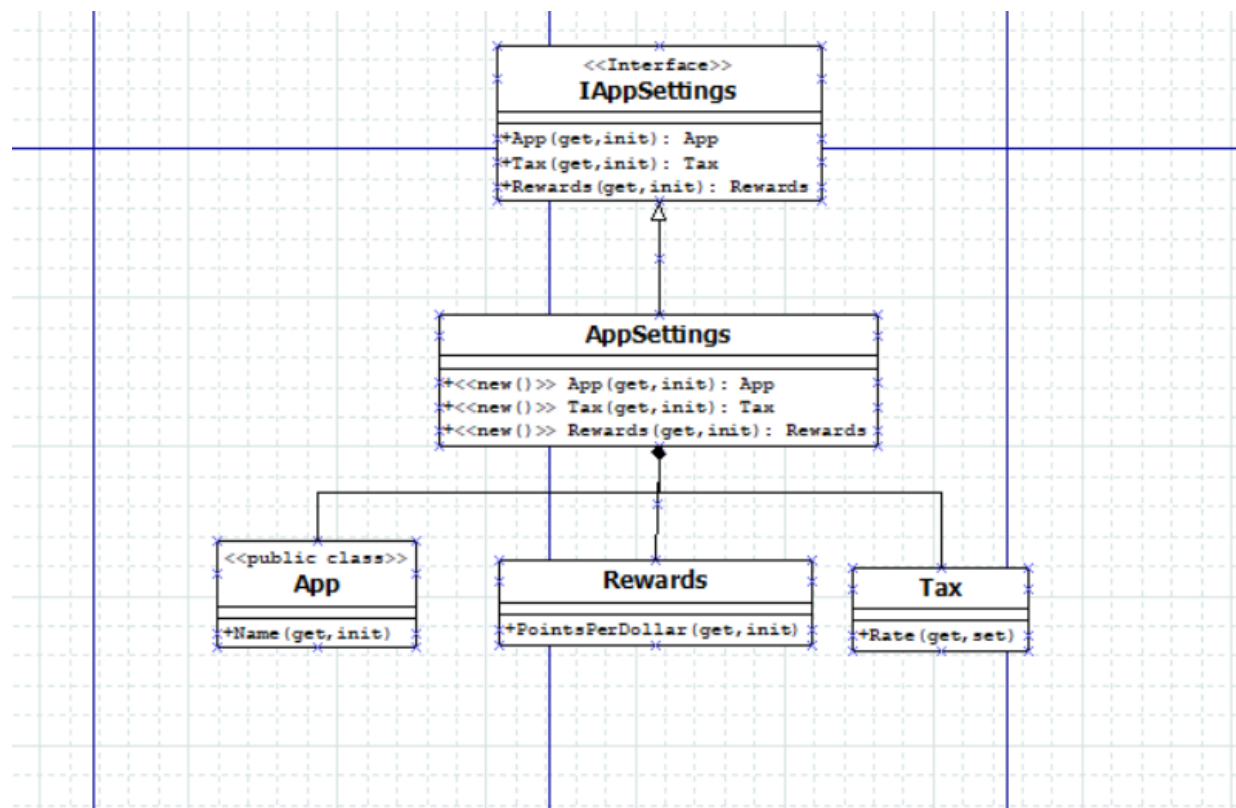Figure 3: CSV Extraction UML Diagram

Figure 4: App Settings UML Diagram

Section 3: Crow's Foot ERD Data Model Diagram

Customer

+Customer_ID: Int
+Customer_FN: String
+Customer_LN: String
+Customer_PN: String
+Customer_RP: Int
+Sales_History: Array

1

0..*

DrinksInOrder

+Customer_ID: Int
+Drink: String
+Used_RP: String
+Current_RP: String
+Subtotal: Decimal
+Tax: Decimal
+Total: Decimal

Order

+Date/Time: String
+Tax: Decimal
+Subtotal: Decimal
+Total: Decimal
+Payment: String
+Order_Summary: Array
+Drink: String
+Customizations: String
+Price: String

1

1..*

Drink

+Customization: String
+Price: Decimal

1

DrinksInOrder is generated when order is finalized.
The DrinksInOrder is saved in the sales data file
whenever a new one is instantiated

A DrinksInOrder object holds all the necessary
sales data that needs to be sent to the CSV
File. To simplify things, DrinksInOrder simply has
a method to send a list of reciepts to the CSV
generator.

0...*

Customization

+Name: String
+Price: Decimal