SWE 3313

Technical Design

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Contents

JSON Example for Customer Data 2

JSON Code Example 2

UML Class Design Diagram 5

Crows Foot ERD Data Model Diagram 7

JSON Example for Customer Data

TITLE	PATH	DATA TYPE	DESC.
CUSTOMERS	Customers[]	List<Customer>	List of all Customers
FIRSTNAME	Customers[].FirstName	String	First Name of a Customer
LASTNAME	Customers[].LastName	String	Last Name of a Customer
PHONE	Customers[].Phone	String	Phone Number of Customer
REWARDPOINTS	Customers[].RewardPoints	Decimal	Total Reward points a customer has
ORDERS	Customers[].Orders[]	List<Order>	List of Orders made by a given customer
DATE	Customers[].Orders[].Date	DateTime	The date of a given order
SUBTOTAL	Customers[].Orders[].Subtotal	Decimal	The subtotal of the order
TAX	Customers[].Orders[].Tax	Decimal	Added cost due to tax
TOTAL	Customers[].Orders[].Total	Decimal	Subtotal + Tax
POINTSEARNED	Customers[].Orders[].PointsEarned	Decimal	Points earned for the order, Total*10
CARD	Customers[].Orders[].Card	String	Credit/Debit card number used in order
DRINKS	Customers[].Orders[].Drinks[]	List<Drink>	List of drinks in the order
NAME	Customers[].Orders[].Drinks[].Name	String	Name of drink
BASEPRICE	Customers[].Orders[].Drinks[].BasePrice	Decimal	Price of drink
TOTALPRICE	Customers[].Orders[].Drinks[].TotalPrice	Decimal	Price of drink + Customization cost
CUSTOMIZATIONS	Customers[].Orders[].Drinks[].Customizations	String	Concatenated string of all customizations on a given drink

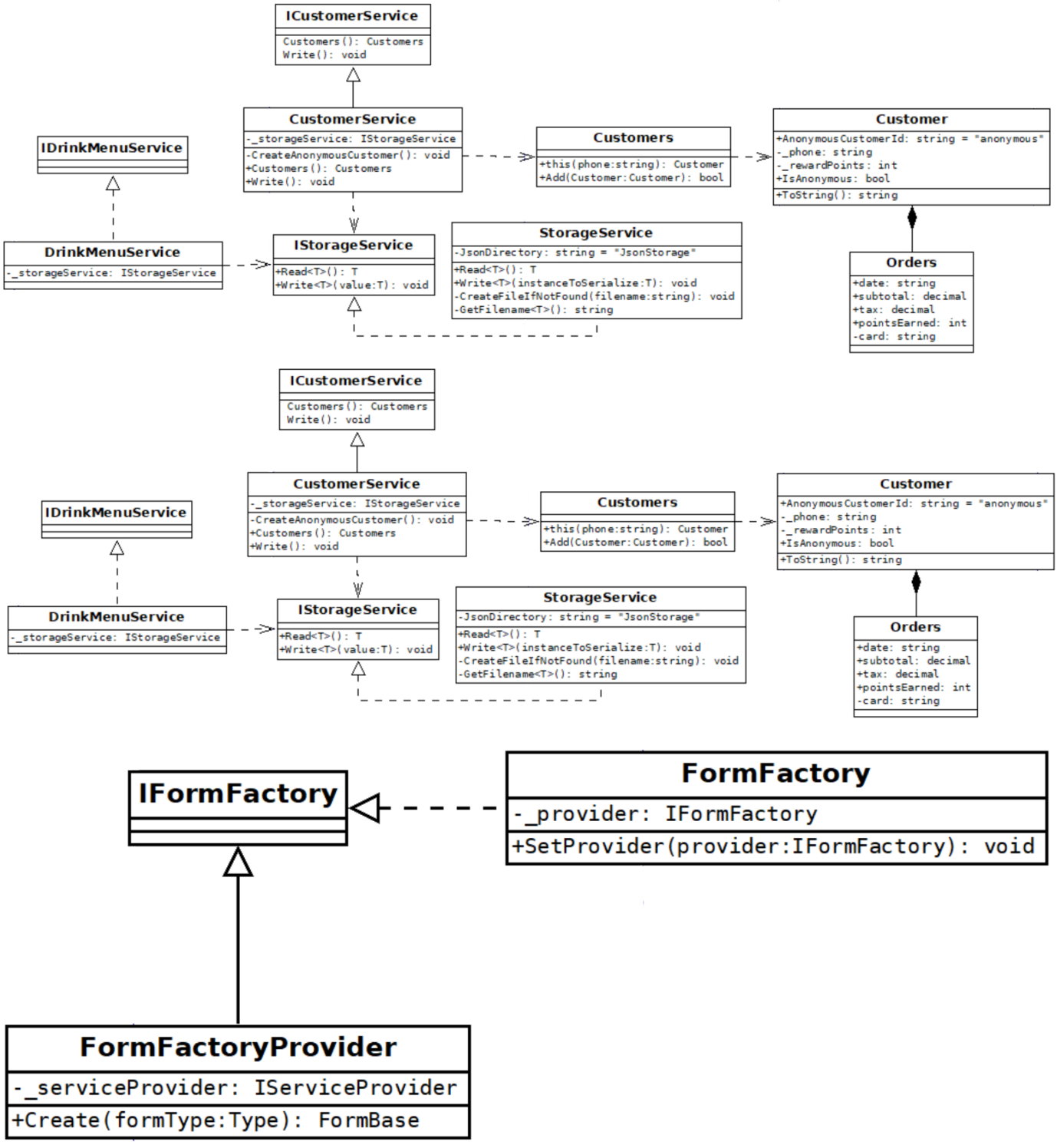
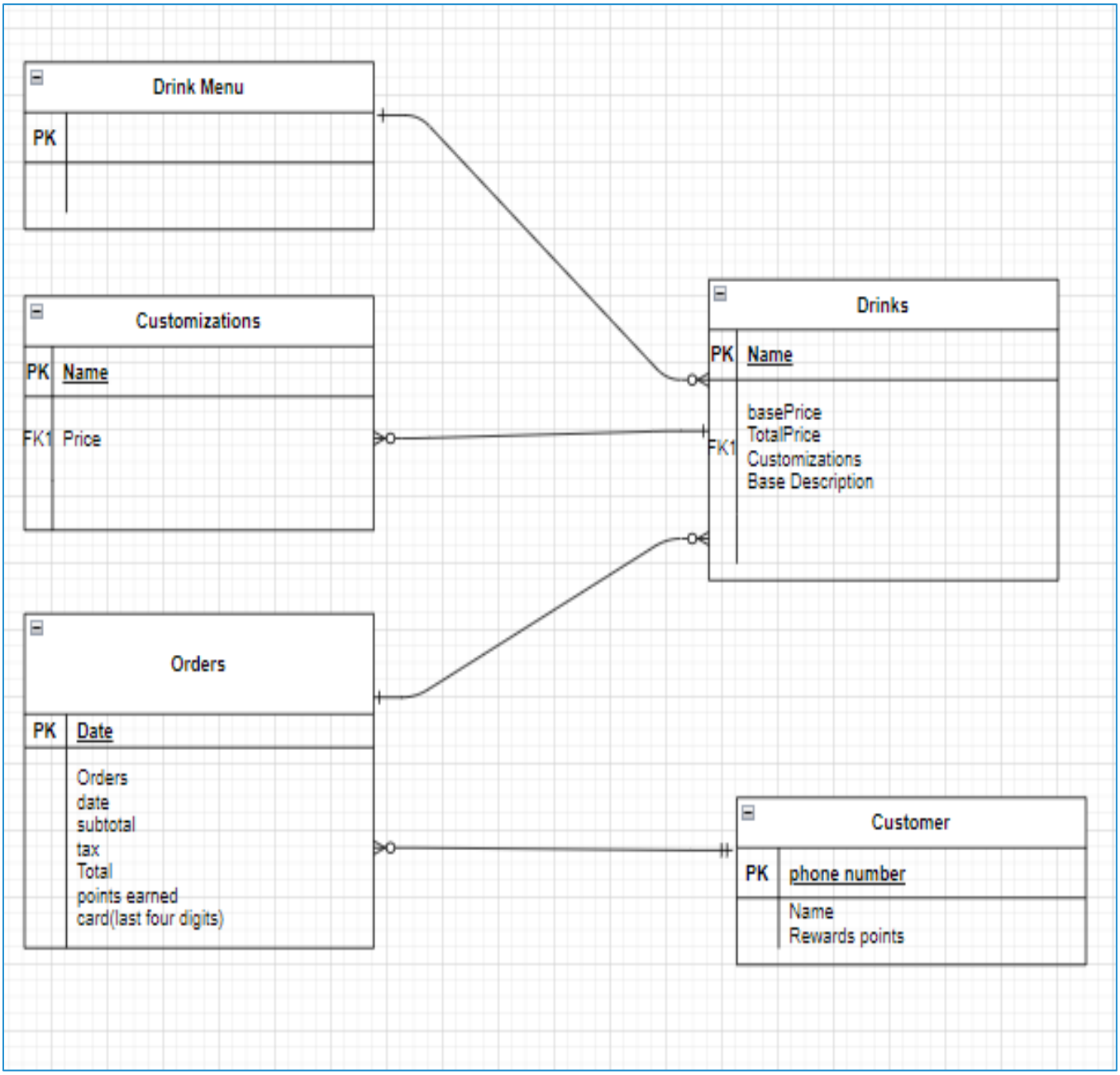
JSON Code Example

```
{
  "Customers": {
    "anonymous": {
      "Phone": "anonymous",
      "RewardPoints": 0,
      "Orders": [
        {
          "Date": "2022-08-03",
          "Subtotal": 5,
          "Tax": 0.30,
          "Total": 5.30,
          "Points Earned": 53,
          "Card": "5329",
          "Drinks": {
            "Name": "Latte",
            "BasePrice": 4,
            "TotalPrice": 5,
            "Customizations": "Lots of Foam:$0.00, Large:$1.00, Whole Milk:$0.00"
          }
```

```
      }
    ]
  },
  "customer 1": {
    "Phone": "123-456-7890",
    "RewardPoints": 95,
    "Orders": []
  },
  "customer 2": {
    "Phone": "098-765-4321",
    "RewardPoints": 10000,
    "Orders": [
      {
        "Date": "2022-08-09",
        "Subtotal": 11,
        "Tax": 0.66,
        "Total": 11.66,
        "Points Earned": 116,
        "Card": "1057",
        "Drinks": [
          {
            "Name": "Latte",
            "BasePrice": 4,
            "TotalPrice": 5,
            "Customizations": "Lots of Foam:$0.00, Large:$1.00, Whole Milk:$0.00"
          },
          {
            "Name": "Latte",
            "BasePrice": 4,
            "TotalPrice": 6,
            "Customizations": "Lots of Foam:$0.00, Mega:$2.00, Decaffeinated:$0.00"
          }
        ]
      }
    ]
  },
  "customer 3": {
    "Phone": "098-765-4321",
    "RewardPoints": 10000,
    "Orders": [
      {
        "Date": "2022-04-01",
        "Subtotal": 13.25,
        "Tax": 0.78,
        "Total": 14.03,
        "Points Earned": 140,
        "Card": "1955",
        "Drinks": [
```

```
            {
              "Name": "Iced Latte",
              "BasePrice": 5.25,
              "TotalPrice": 7.75,
              "Customizations": "Large:$1.00, Almond Milk:$1.50, Decaffeinated:$0.00"
            },
            {
              "Name": "Iced Matcha Green Tea Latte",
              "BasePrice": 4,
              "TotalPrice": 5.5,
              "Customizations": "OatMilk:$1.50, Extra Ice:$0.00"
            }
          ]
        },
        {
          "Date": "2022-08-24",
          "Subtotal": 6.75,
          "Tax": 0.40,
          "Total": 7.15,
          "Points Earned": 71,
          "Card": "6033",
          "Drinks": [
            {
              "Name": "Espresso",
              "BasePrice": 2.5,
              "TotalPrice": 3.75,
              "Customizations": "1 Extra Shot:$1.25"
            },
            {
              "Name": "Latte",
              "BasePrice": 4,
              "TotalPrice": 3,
              "Customizations": "Small:$-1.00, Less Hot:$0.00"
            }
          ]
        }
      ]
    }
  }
}
```

UML Class Design Diagram



Crows Foot ERD Data Model Diagram