**INFO 6350 Fall 2024**

**Assignment 6**

Create an application for managing Customers and Insurance Policy Plans, showcasing your understanding of object-oriented programming principles. You are required to add a User Interface programmatically.

**Requirements:**

1. Create an iOS application with at least one view.
2. Add a text field for each parameter that needs to be entered by the user.
3. Add Buttons for each operation (Add, View, Update, Delete, Display All).
4. For the Display All operation, add a new text view to display the list of items.
5. There should be a Back Button to bring you back to the main view.
6. Add alerts and success popups whenever applicable (on creation, errors, etc.) with meaningful messages.
7. **DO NOT USE** ViewControllers or Interface Builder (IB) to build your interface.

**Entities and Fields:**

**Customer**

* id: Integer
* name: String
* age: Integer
* email: String

**Insurance Policy Plan**

* id: Integer
* customer\_id: Integer
* policy\_type: String
* premium\_amount: Double
* start\_date: String
* end\_date: String

**CRUD Operations:**

**1. Customer:**

* Add Customer: Add a new customer by providing the details mentioned above.
* Update Customer: You can only update the name and age of the customer.
* Delete a Customer: If a customer has one or more Insurance Policy Plans, you cannot delete that customer.
* View All Customers: Users can view a list of all available customers in the system.

**2. Insurance Policy Plan:**

* Add Insurance Policy Plan: Add a new insurance plan by providing the details mentioned above.
* Update Insurance Policy Plan: You can only update the policy type, premium amount, and end date of an insurance policy.
* Delete an Insurance Policy Plan: You cannot delete an insurance plan that is still active (i.e., the current date is before the end date).
* View All Insurance Policy Plans: Users can view a list of all insurance plans currently available in the system.

**Metrics:**

* All fields should have values.
* Apply object-oriented design principles to model the relationships between Customers and Insurance Policy Plans.
* Ensure error handling is implemented: If you attempt to delete a customer or insurance plan that is still linked or active, show a meaningful error message.