



**BIRZEIT UNIVERSITY**

**Computer Science Department**

**Second Semester 2017/2018**

**Instructor: Adel Taweel**

**Comp433 – Software Engineering**

**Project-Phase Four**

**Task 4.1 - System Class modelling and Analysis**

**Task4.2- System Sequence & State modelling and Analysis**

**Task4.3- System and architectural Design**

**G1- Developer Group**

**Students:**

**Maryam Shaheen #1140427: [Manager](#)**

**Nourhan Abu Sharbak #1150640: [Secretary](#)**

**Eman Ghazawneh #1152278: [Technical architect](#)**

**Ahmad Thabet #1150312: [Programmer](#)**

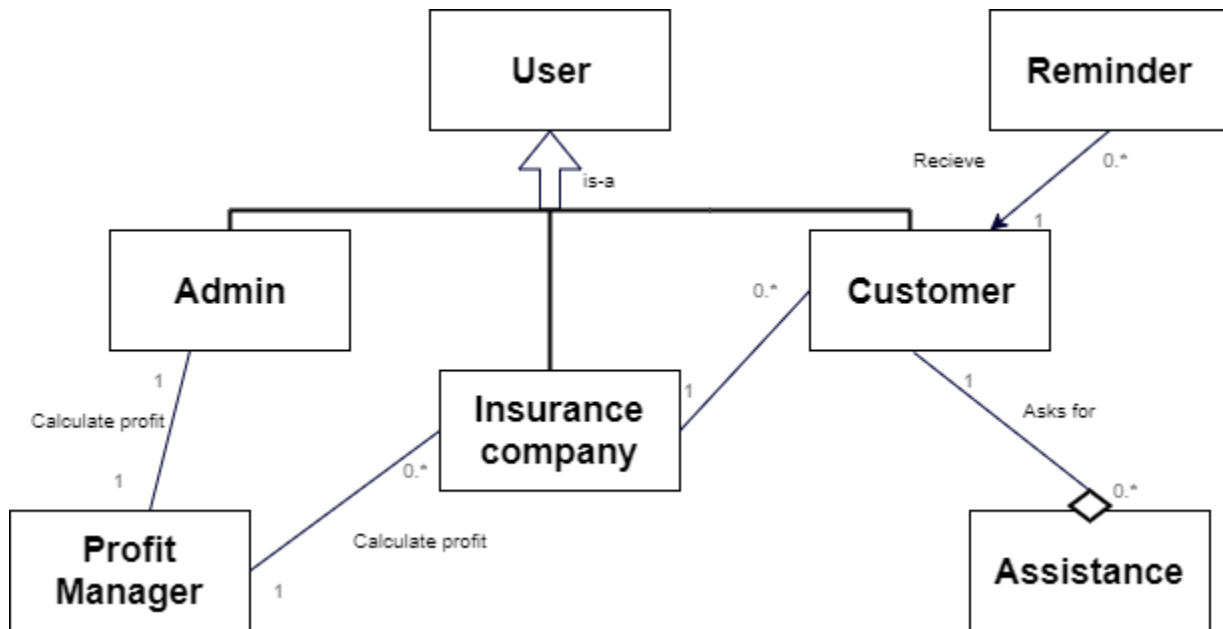
**Sanaa Bader #1151763: [Tester](#)**

## **Task 4.1 - System Class modelling and Analysis**

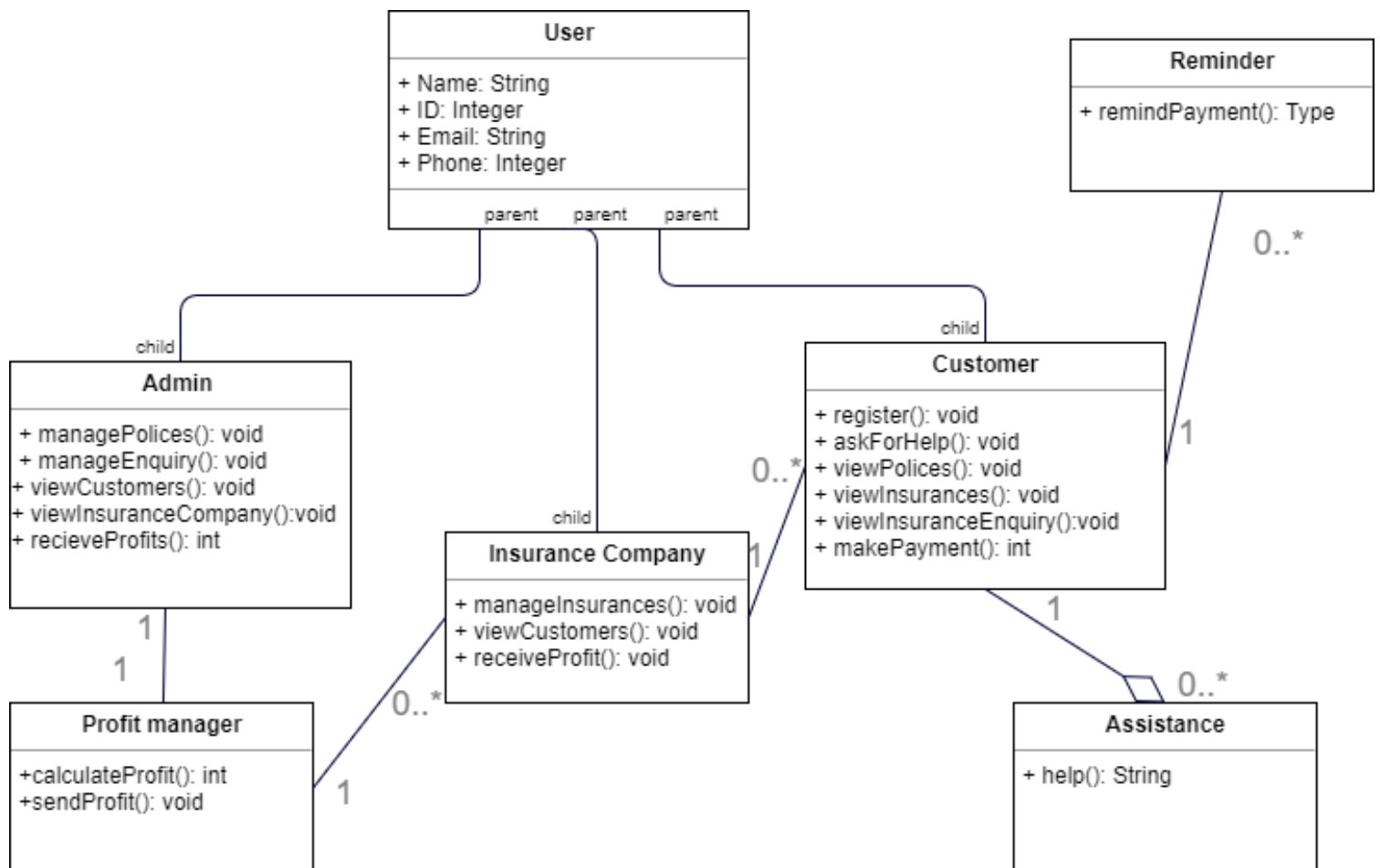
### **4.1.1-system analysis CLASSES and description**

- **Assistance:** assistance responsible for help and guide the user/customer of the system in any issue.
- **Employee :** This class represents a person who can register to the system, create insurance, review insurance, view customers, and he/she can change his/her password and profile settings after logging in.
- **Reminder:** This class represents someone who reminds the customer of the deadline for payments.
- **Insurance Company:** This class represents someone who registers on the system, manage customers, manage payments, also he/she can manage policies, and change his password and profile settings after logging in.
- **Admin:** This class represents the Administrator of the system, it has all of his information, and he is allowed to manage stuff such as, enquiries and policies in addition to receive profits.
- **Customer:** This class represents someone who registers on the system, see and ask for car assurance, search for policies and view them, also he/she can ask for guidance for how to use the system, change his password and profile settings after logging in. And after choosing assurance, he can pay cash or by visa card, also he can communicate with the assurance company.

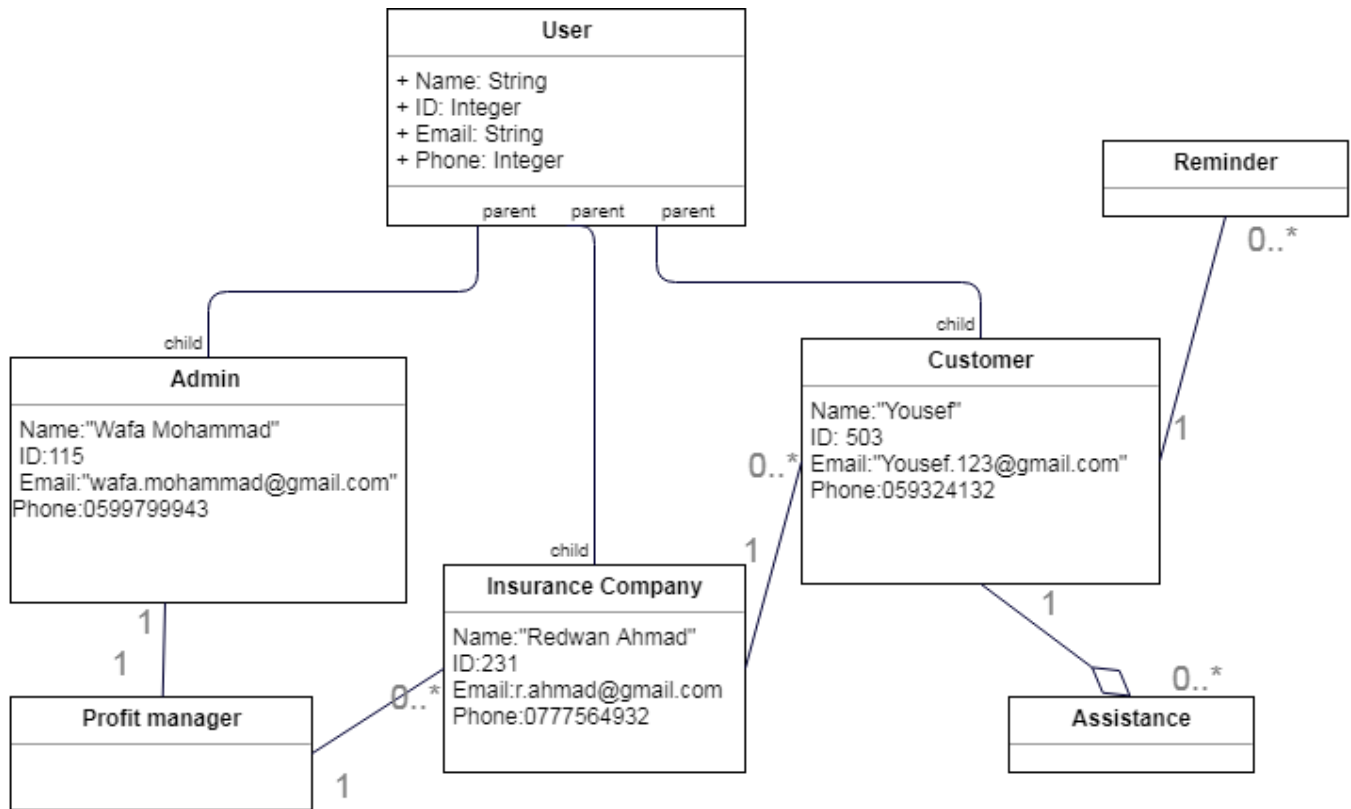
### 4.1.2- ANALYSIS CLASS model/Diagram.



### 4.1.3- DETAILED CLASS model/Diagram



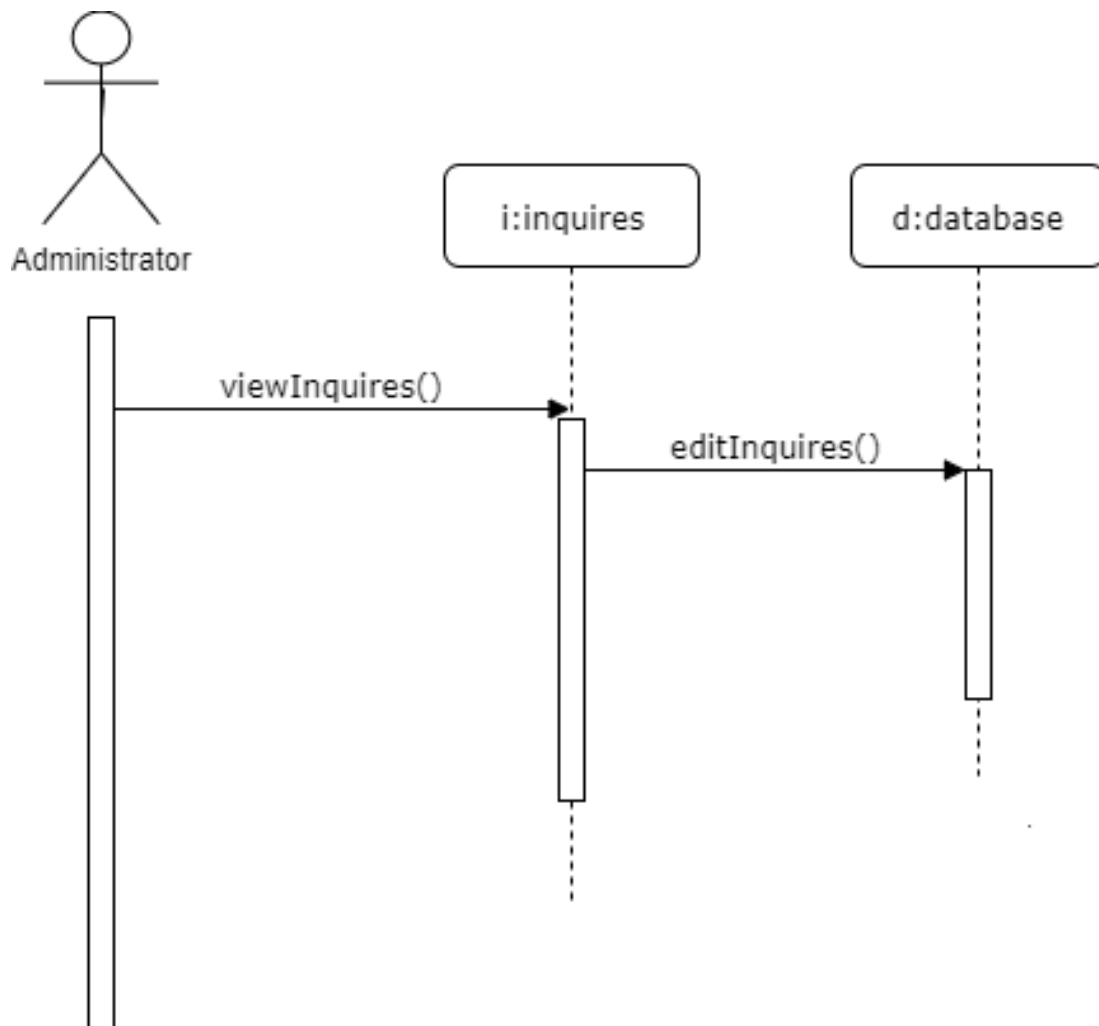
### 4.1.4- OBJECT diagram



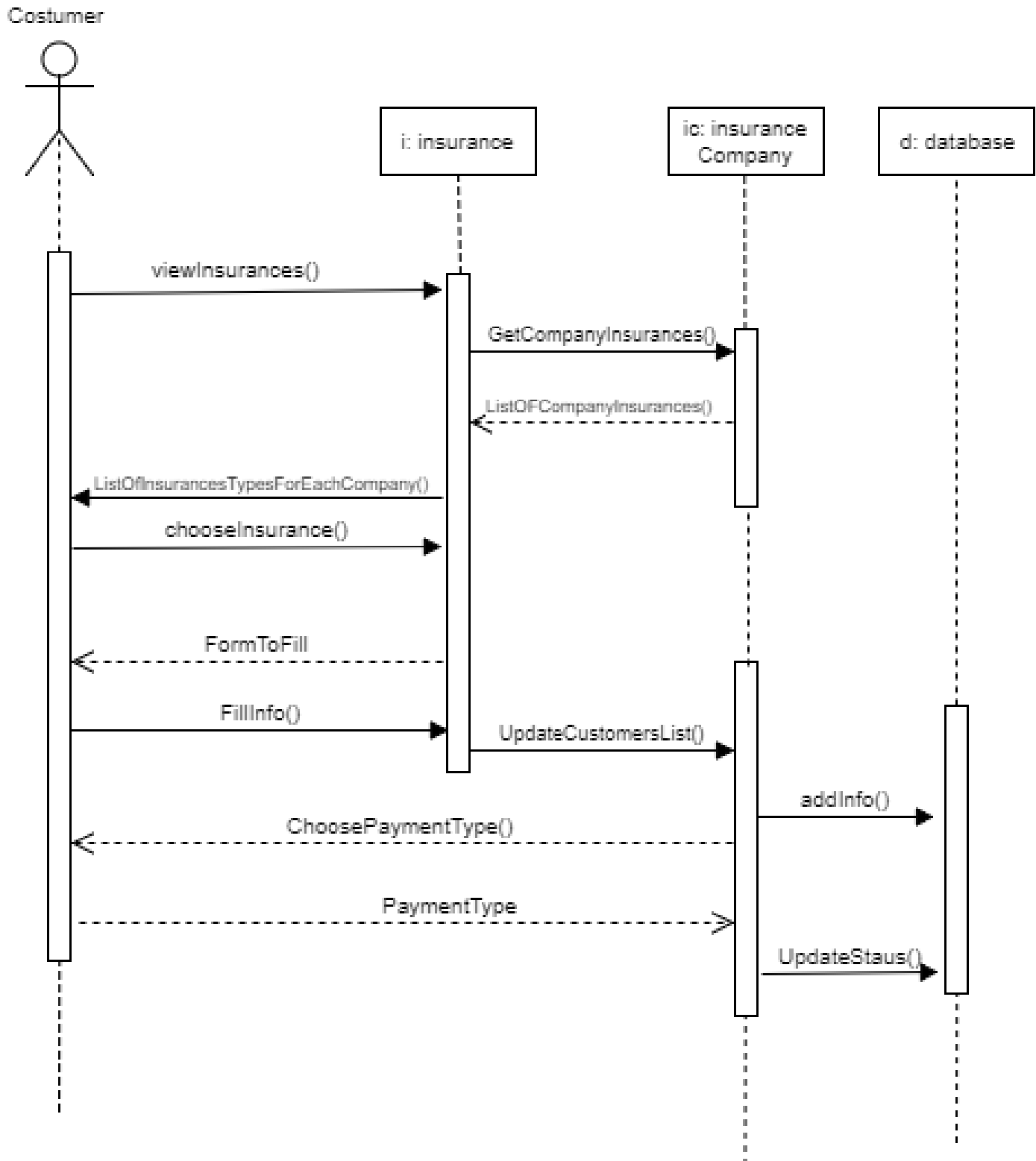
## ***Task4.2- System Sequence & State modelling and Analysis***

### ***4.2.1- SEQUENCE diagrams***

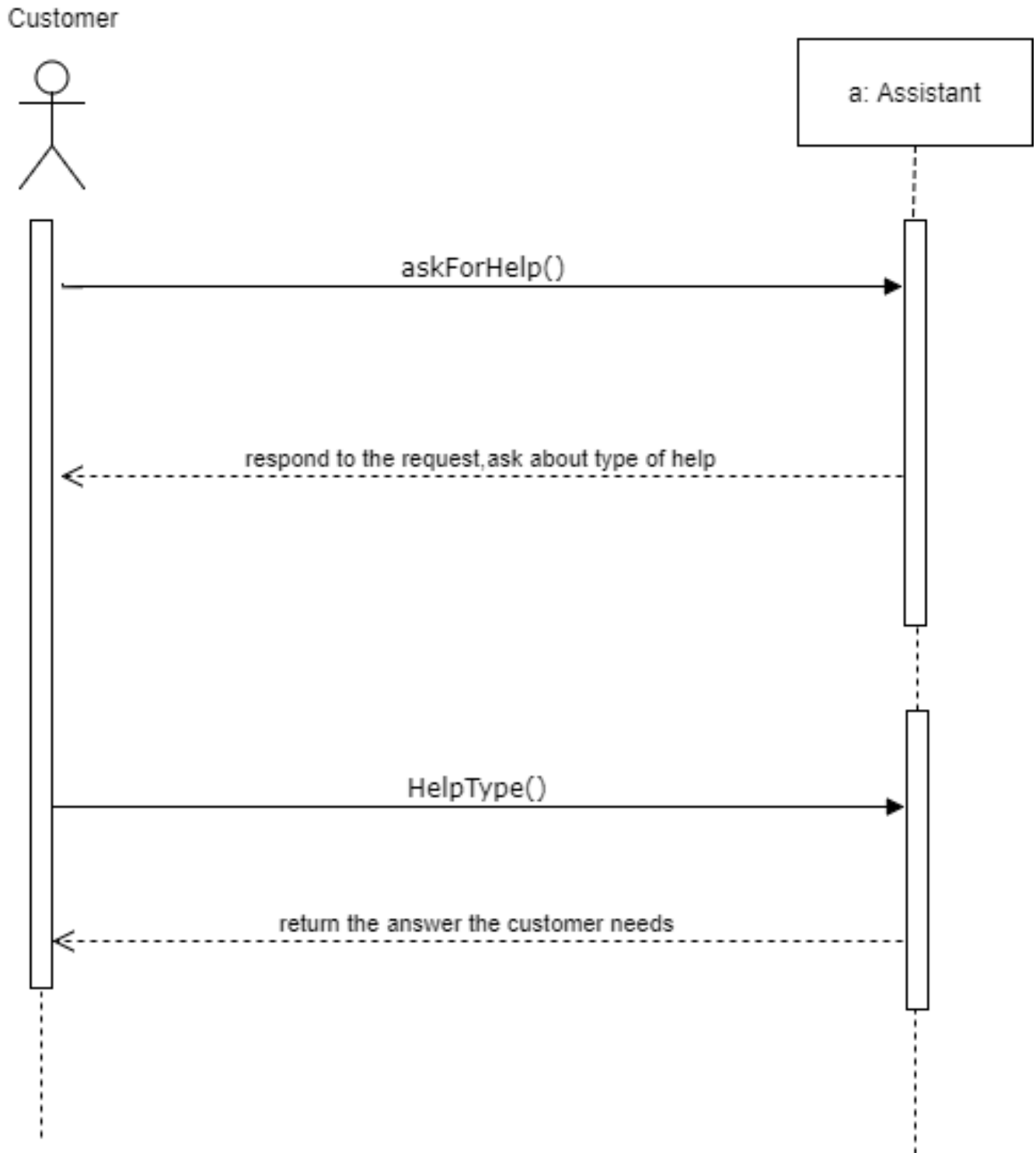
#### ***1- Admin view and edit inquiries sequence diagram (by Ahamad)***



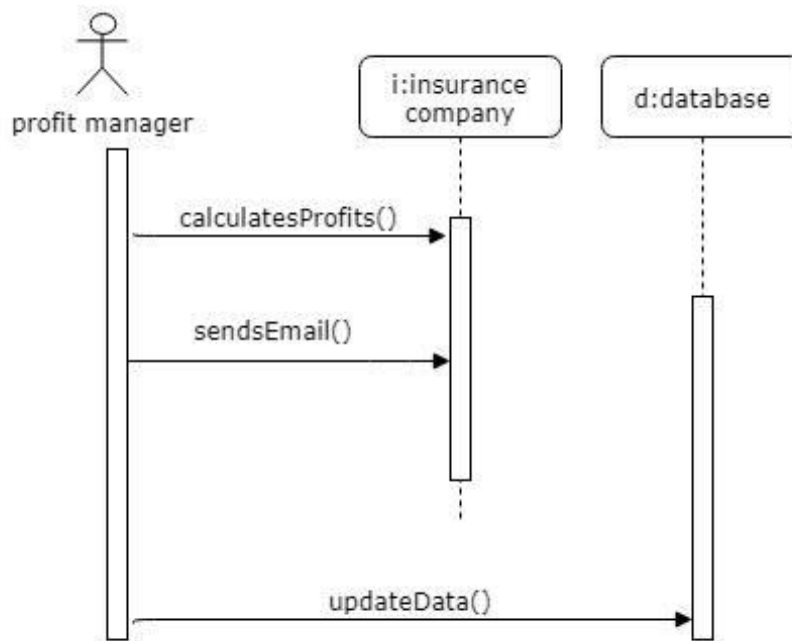
## 2- Customer applying for insurance sequence diagram (By Maryam)



### 3- Customer asking for assistance sequence diagram (By Sanaa)

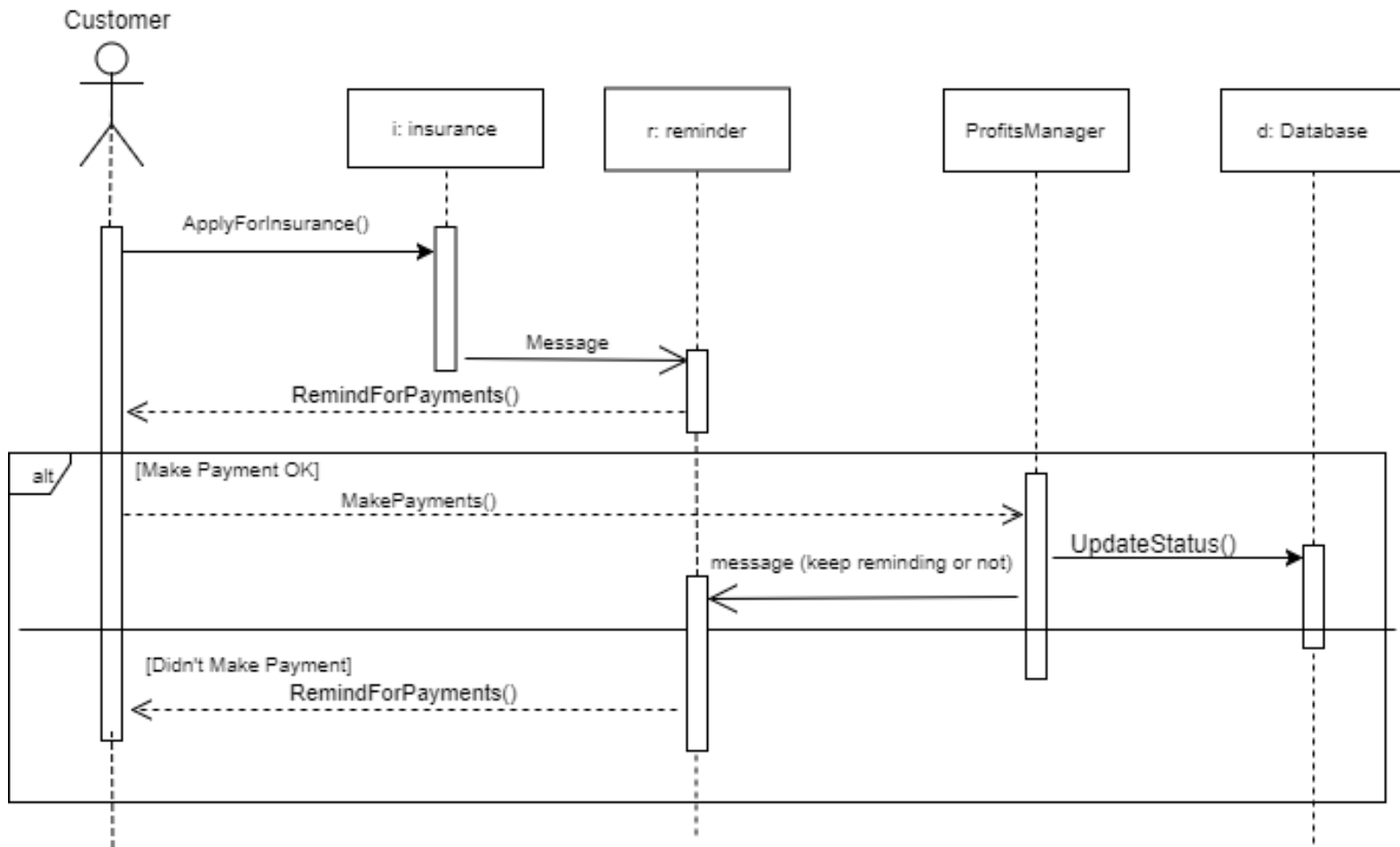


## 4- Profit manager for insurance company sequence diagram (By Nourhan)

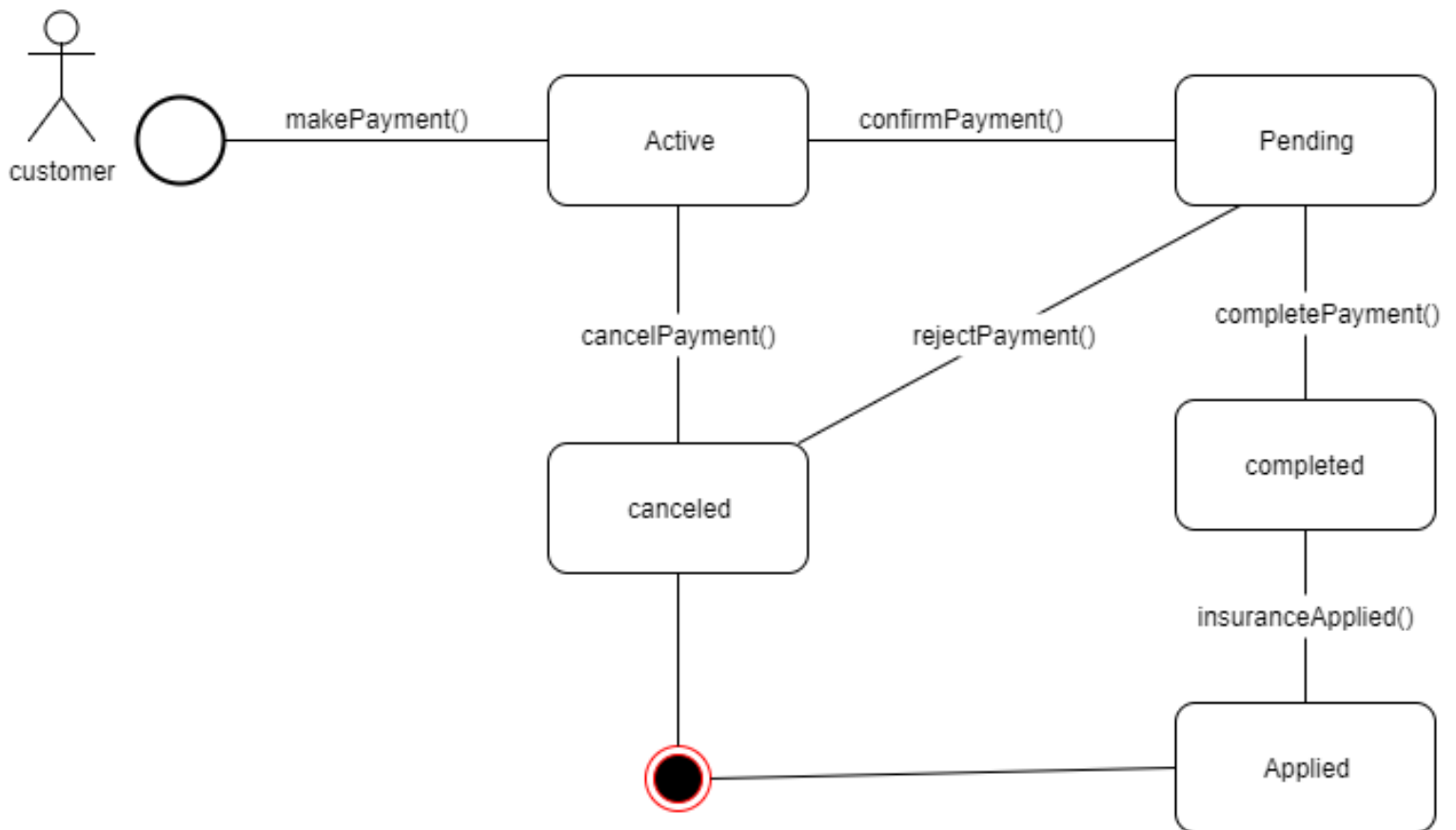




## 5- System reminder sequence diagram (By Eman)



## Task 4.2.2- One STATE diagram (By Ahmad)



## Task 4.3- System and architectural Design

### 4.3.1- Description of design goals (By Eman)

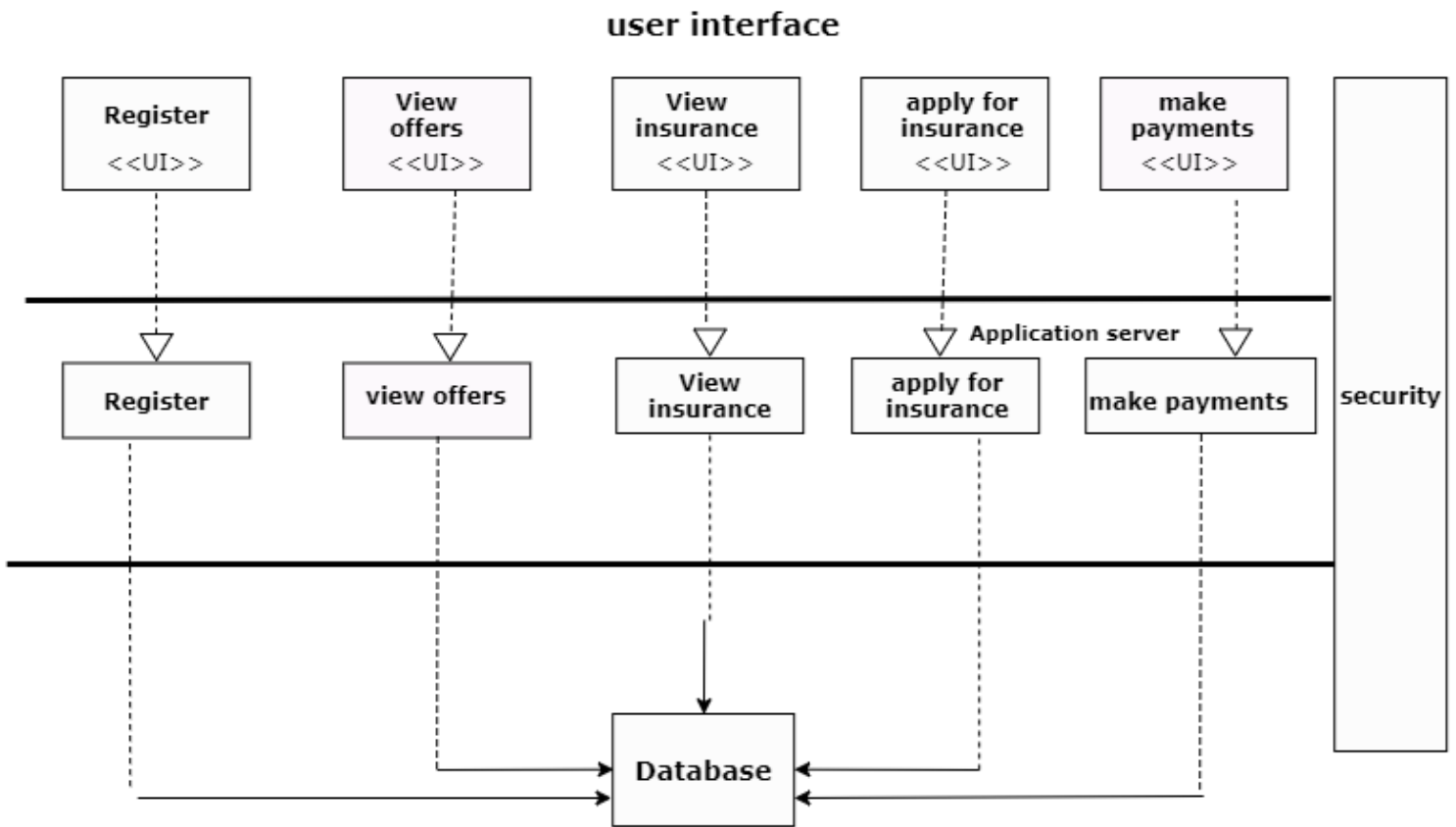
#### General Goals:

1. *High cohesion: Classes that interact to perform a certain function are placed together in one component that provides the service of said function.*
2. *Low coupling: If a class has interactions that relate to different components, copies of that class are made and distributed among the components so as to lower the rate of interaction between them*

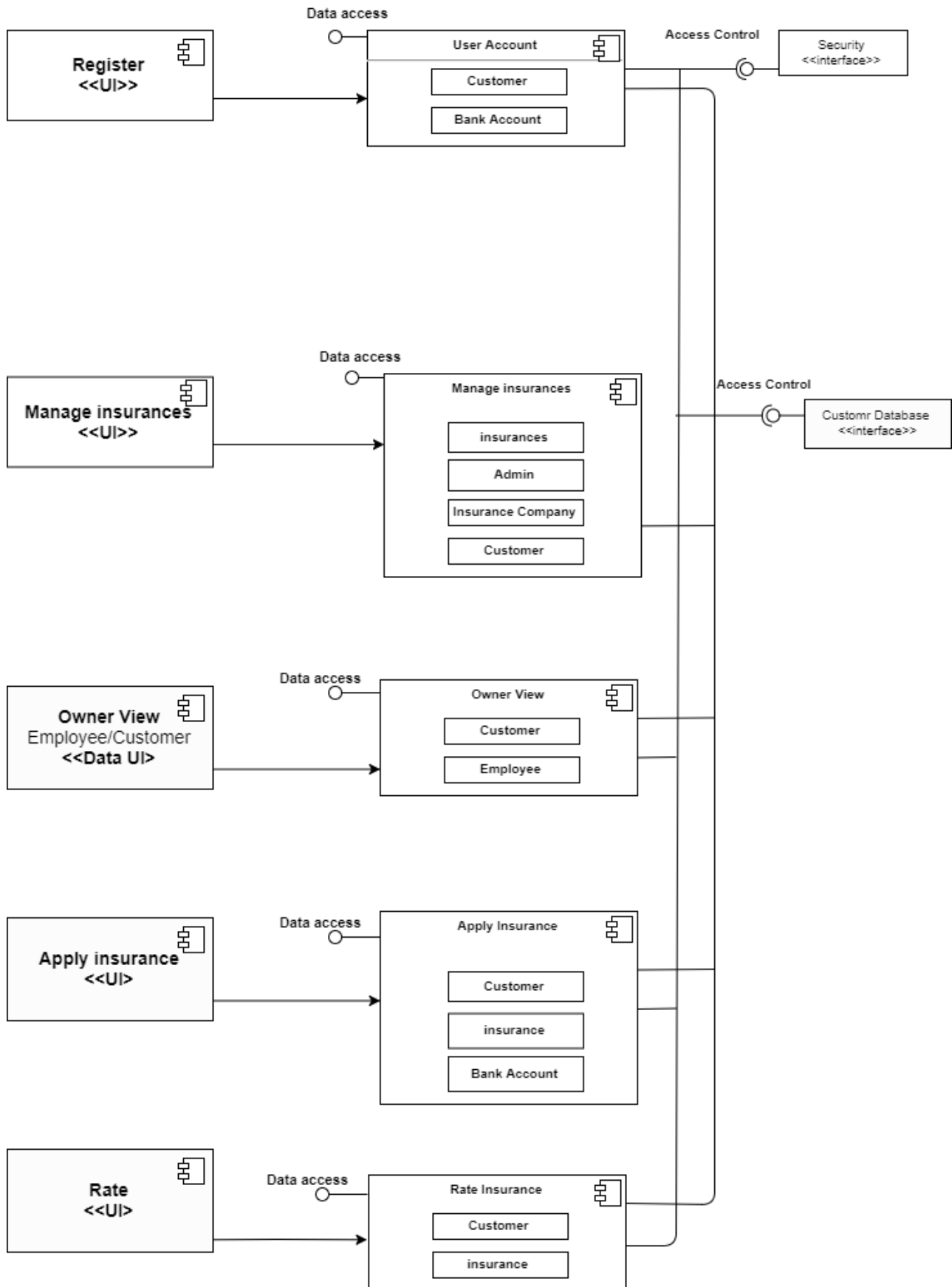
#### Specific Goals:

1. *User friendliness: Achieved by providing the customer with several user interfaces.*

### 4.3.2- Architecture diagram (By Nourhan)



### 4.3.3- Component diagram (By Maryam)



#### 4.3.4- deployment diagram (By Sanaa)

