Mobile Tourists
Project 09
SE 305 – Software Specification and Design
Term Project Design Document

Özgür Burak Bulut
Sıla Tekcan
Erşen Pamuk
Utku Durmuş

January 22, 2021

1. Introduction

This project aims to build a tour system. This system stores user's personal information and makes seen all the available tours that created by the admin. Customers can apply any available tour they want also admin can apply or reject this letter of applications. During tour, the tour guide provides information about the tour through the application and customers can access this information. This application will act as an artificial intelligence guide and will facilitate the communication between the tour guide and the customers.

2. Problem Definition

Many people face difficulties during the tour. For example; missing the bus, getting lost in the city, misunderstandings etc. This project will minimize these problems for Özikizler Tourism customers. The application will show all the contents of the tour like; arrival points, departure times, places to visit, landmarks etc. Users will be notified of their tour-related problems to the tour guide through the application.

3. **Proposed System Design**

## 3.1. **Requirements**

3.1.1. Functional Requirements

- Users will register on the application with their personal information (age, gender, name, surname, blood type, identity number).
- Users will be able to manage their accounts' username, password, personal information.
- Users will be able to see and apply for tours in the application.
- Users will receive notifications about tour departure time, tour arrival time, tour breaks, etc. during the tour.
- The company will be able to evaluate the letter of applications.

3.1.2. Non-Functional Requirements

- This application will store users' data.
- This application will operate in Android 4.3 and updated versions, iOS 8 and updated versions of smartphones.
- This application must be connected to Internet.
- This application will show all the contents of the tour.
- The system needs a well-maintained server.
- This application will facilitate the communication between the tour guide and the user.
- The system must be accessible after user login.
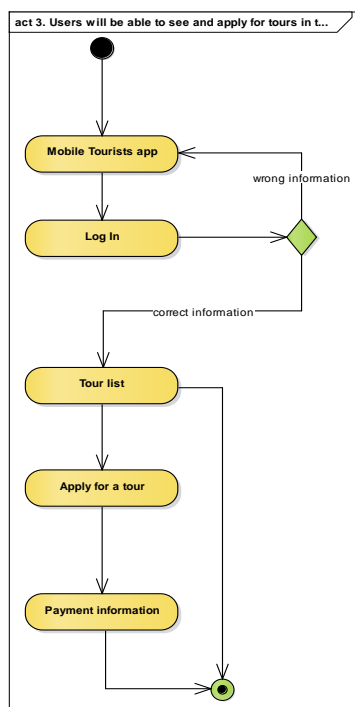
3.2. Activity Diagrams

3.2.1. Activity Diagram 1: Users will register on the application with their personal information (age, gender, name, surname, blood type, identity number).
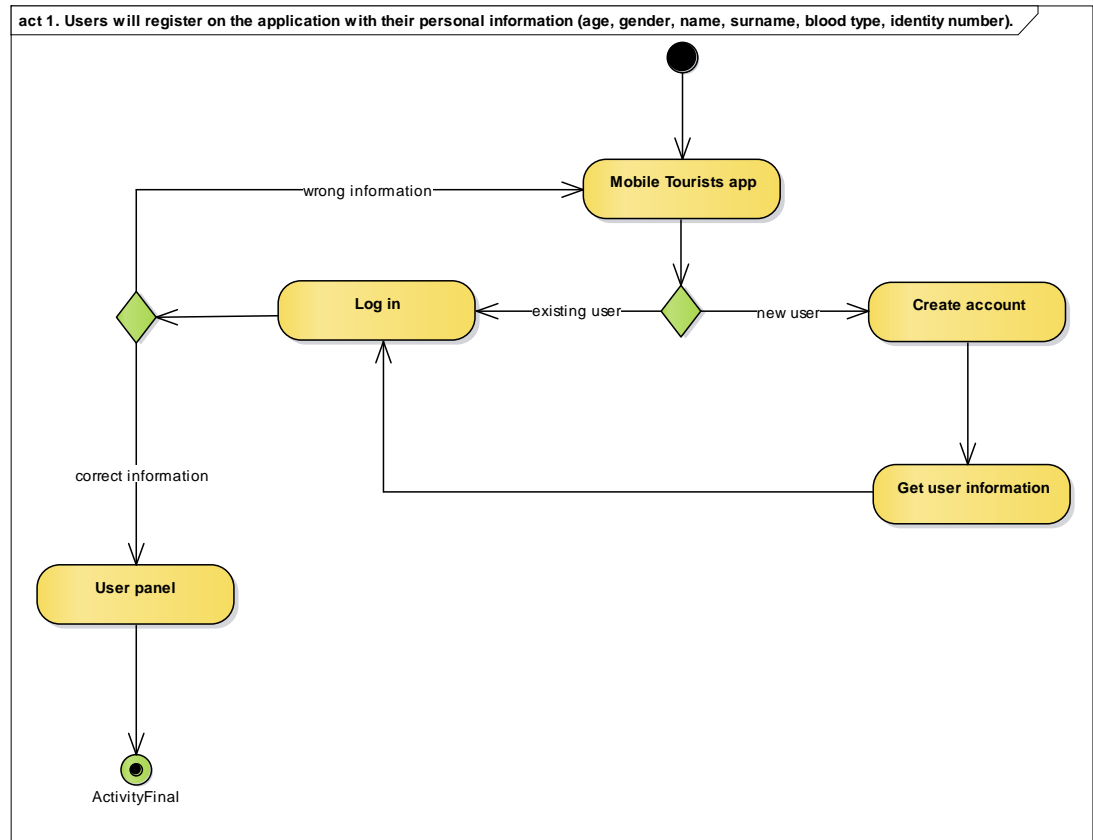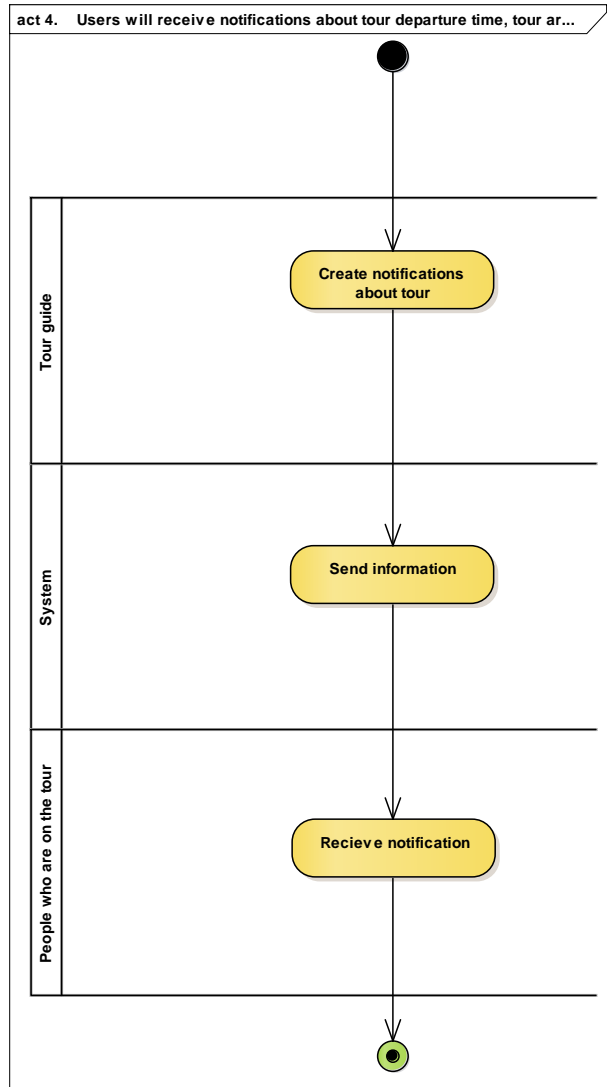
3.2.2. Activity Diagram 2: **Users will be able to manage their accounts' username, password, personal information.**
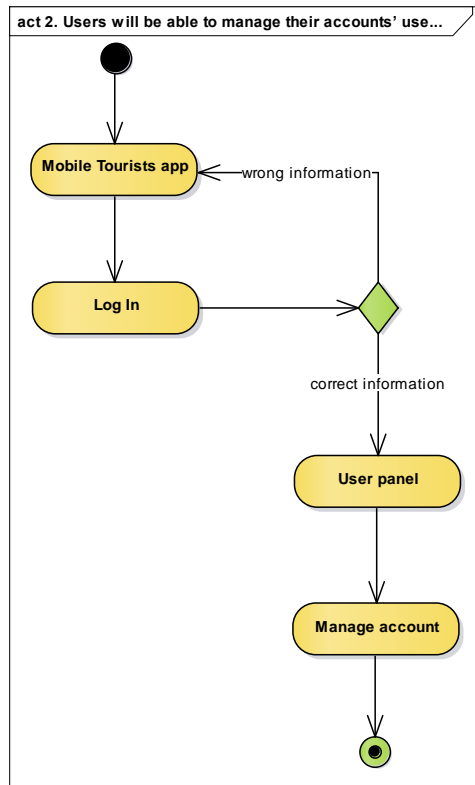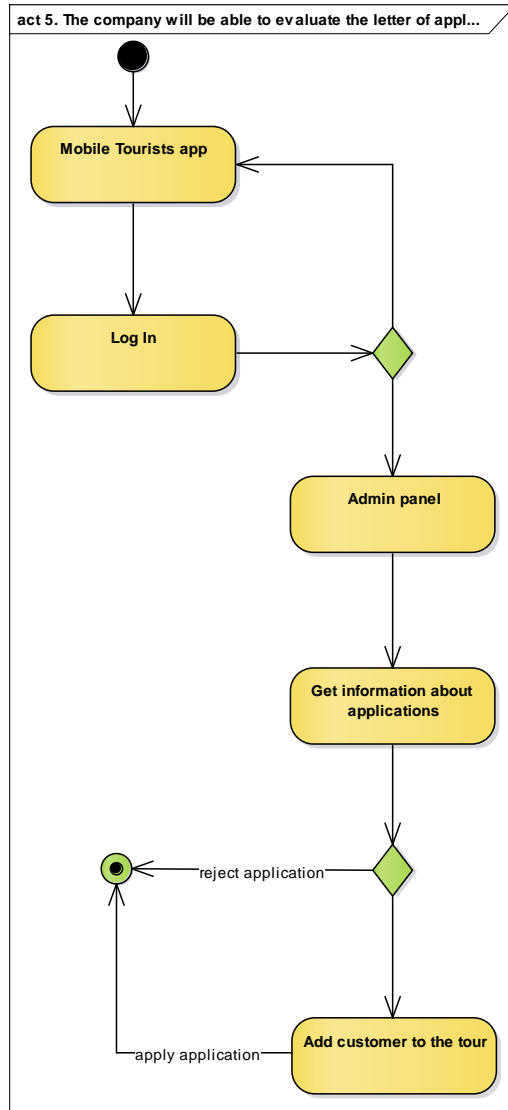

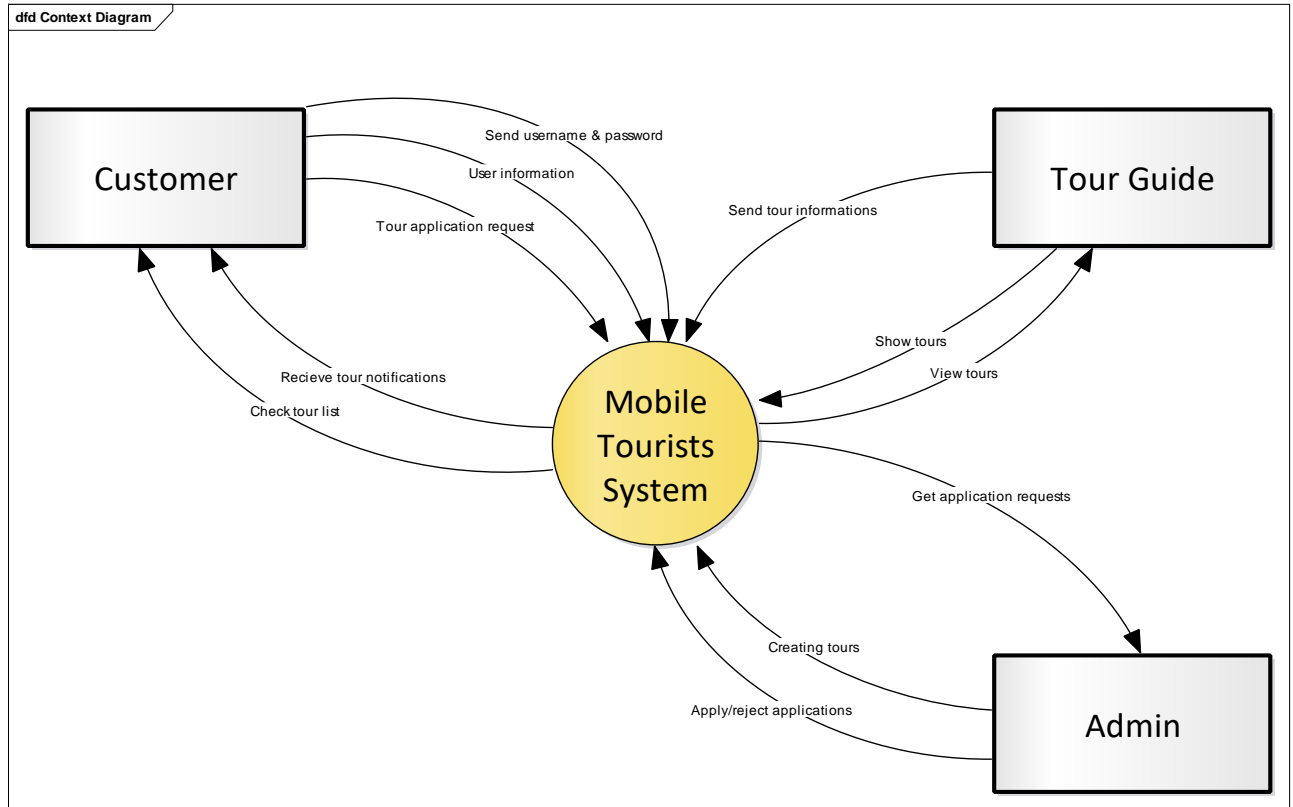### 3.2.3. Activity Diagram 3: **Users will be able to see and apply for tours in the application.**

3.2.4. Activity Diagram 4: **Users will receive notifications about tour departure time, tour arrival time, tour breaks, etc. during the tour.**

3.2.5. Activity Diagram 5: **The company will be able to evaluate the letter of applications.**
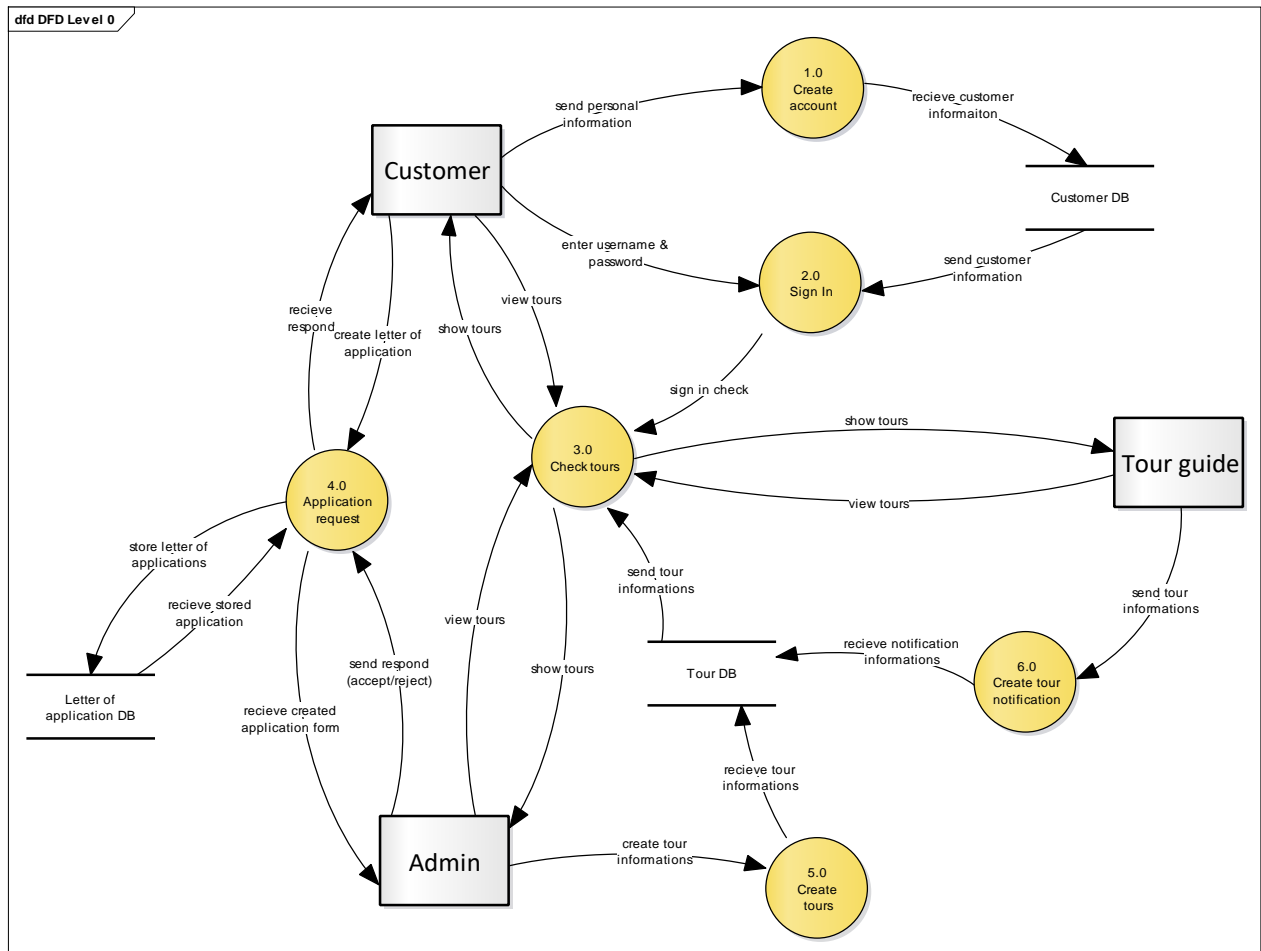
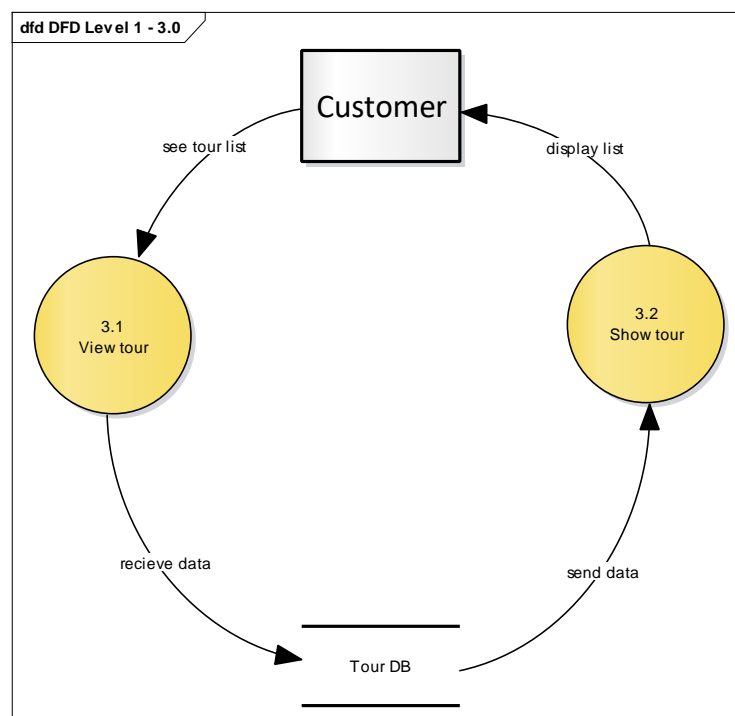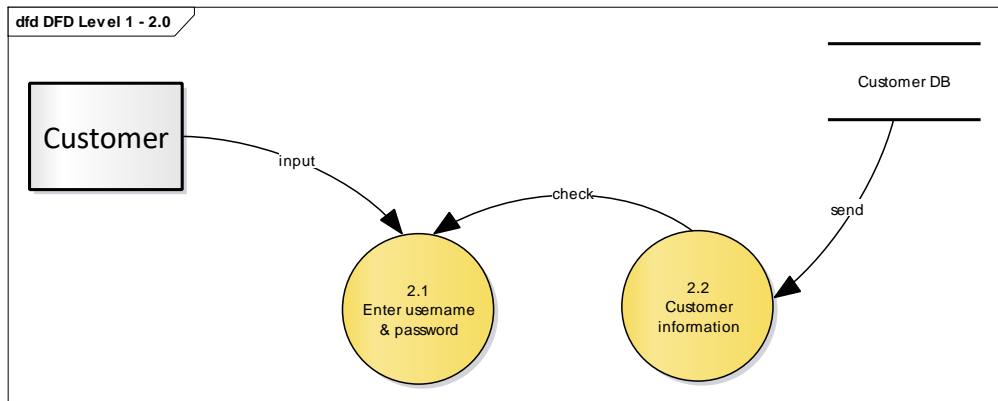İZMİR UNIVERSITY OF ECONOMICS
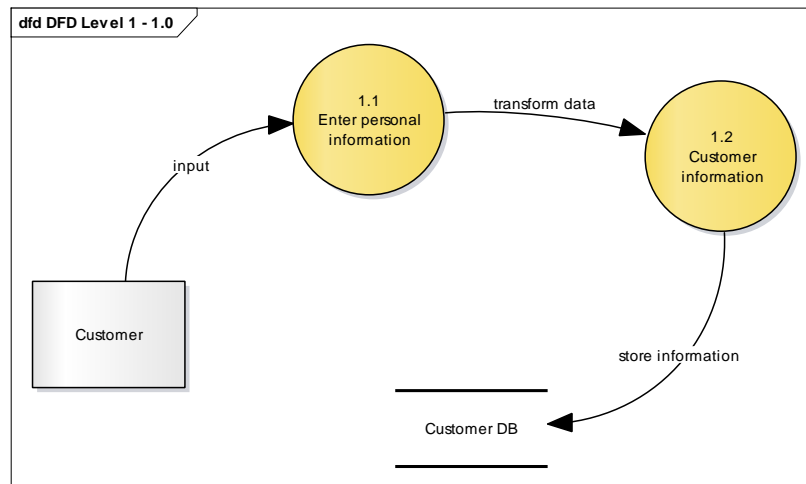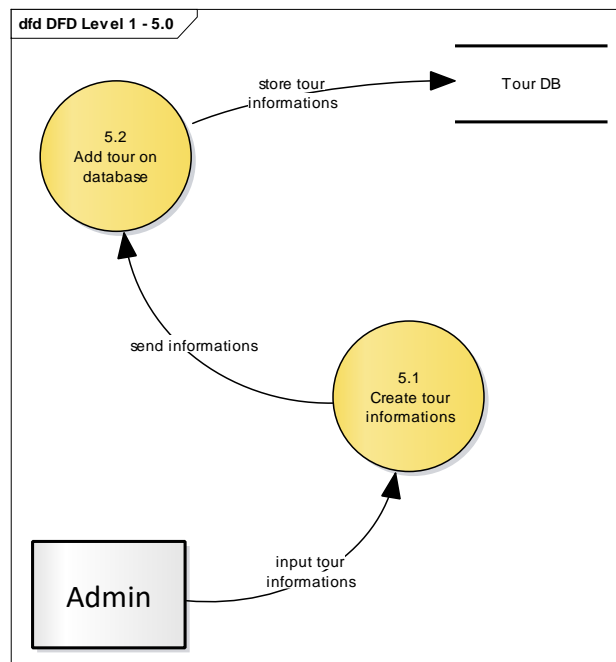
3.3. Context Model

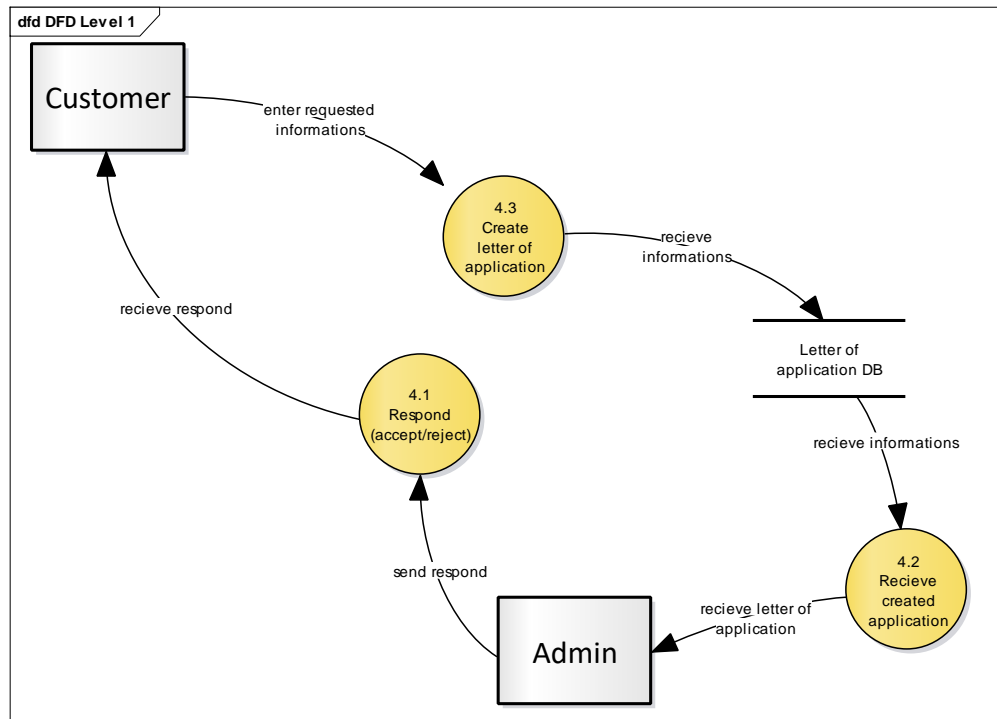# 3.4. Data Flow Diagrams

3.4.1. Data Flow Diagram Level 0

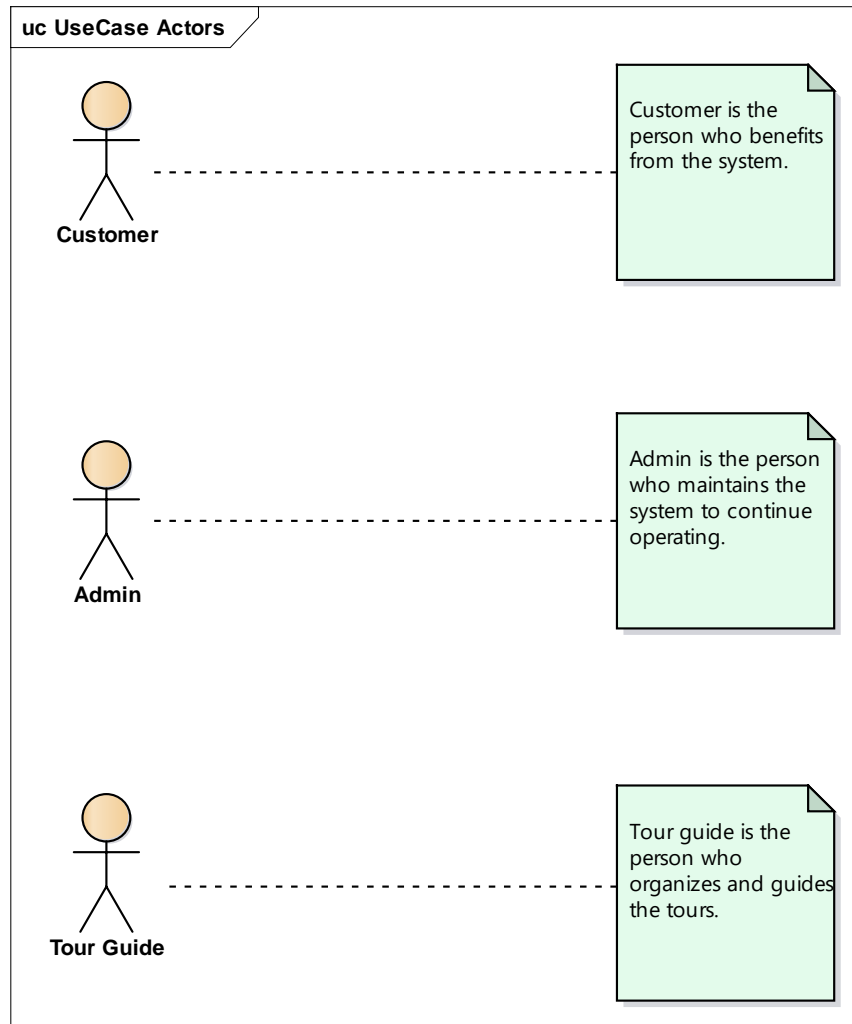## 3.4.2. Data Flow Diagram Level 1s

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dfd DFD Level 1

Customer

enter requested
informations

4.3
Create
letter of
application

recieve
informations

recieve respond

Letter of
application DB

4.1
Respond
(accept/reject)

recieve informations

send respond

4.2
Recieve
created
application

recieve letter of
application

Admin

dfd DFD Level 1 - 5.0

5.2
Add tour on
database

store tour
informations

Tour DB

send informations

5.1
Create tour
informations

input tour
informations

Admin

3.5. Use Cases
3.5.1. Use Case Actors

3.5.2. Use Case Diagram

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3.6. Class Diagram

class MobileTourists_ClassDiagram

Letter of Applications
- ADM_ID: int
- CST_ID: int
+ LOA_date: int
+ LOA_ID: int
- T_ID: int

+ getADM_ID(): int
+ getCST_ID(): int
+ getT_ID(): int
+ setADM_ID(): int
+ setCST_ID(): int
+ setT_ID(): int

Customer
- ACC_ID: int
- CST_address: String
+ CST_bloodType: String
+ CST_email: String
- CST_ID: int
- CST_identityNo: int
- CST_name: String
+ CST_phoneNo: long

+ checkTours()
+ createACC()
+ createLOA()

create 0..* / 1..*

Tours
+ T_arrivalTime: int
+ T_date: String
+ T_departureTime: String
+ T_ID: int
+ T_route: String
+ TG_ID: int

+ display()

contains / evaluate

Admin
- ACC_ID: int
+ ADM_email: String
- ADM_ID: int
+ ADM_name: String
+ ADM_phoneNo: long

+ checkTours()
+ createTours()
+ evaluateLOA(): boolean

create / has

Tour Guide
- ACC_ID: int
+ TG_bloodType: String
+ TG_email: String
- TG_ID: int
+ TG_name: String
+ TG_phoneNo: long

+ checkTours()

has

Account
- ACC_ID: int
- ADM_ID: int
- CST_ID: int
- Password: char
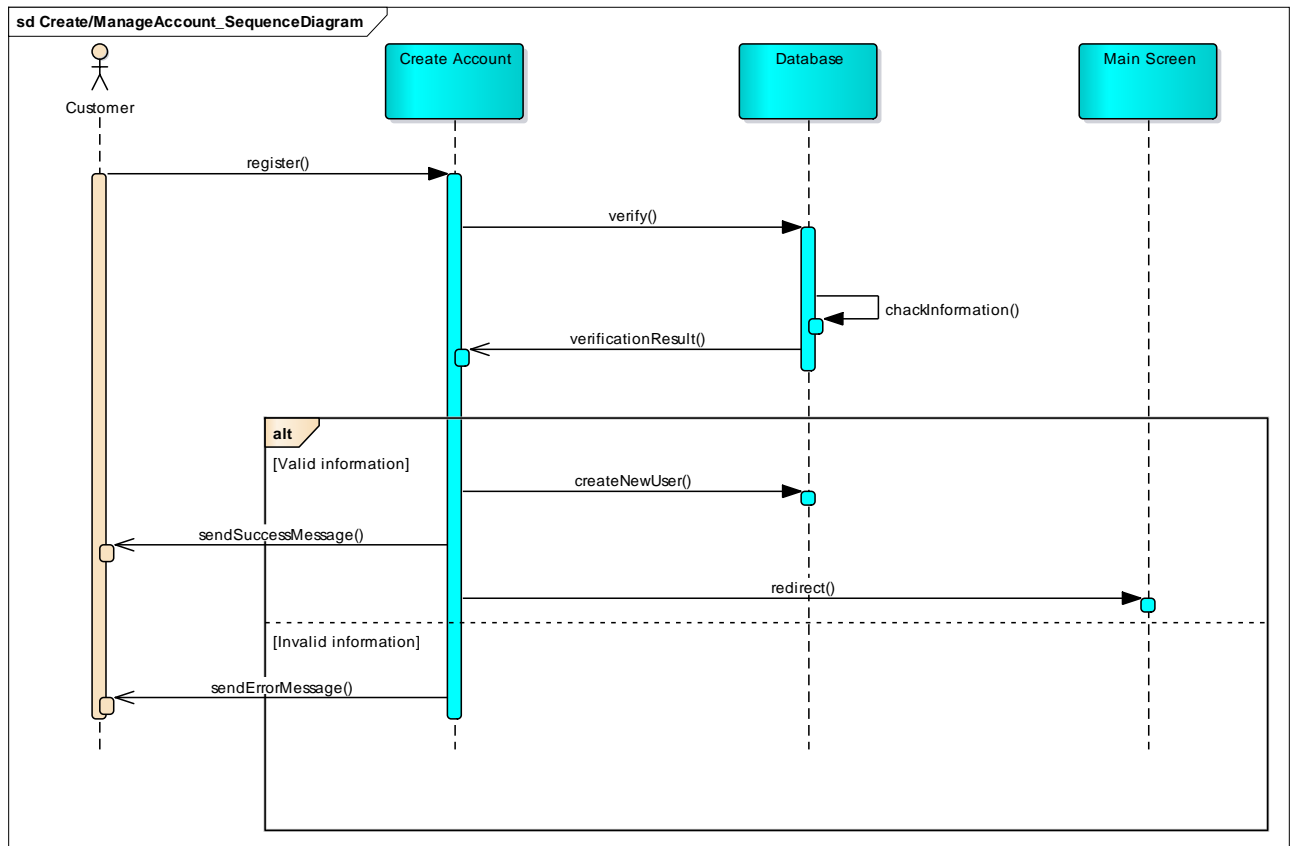- TG_ID: int

+ checkInfo(): boolean
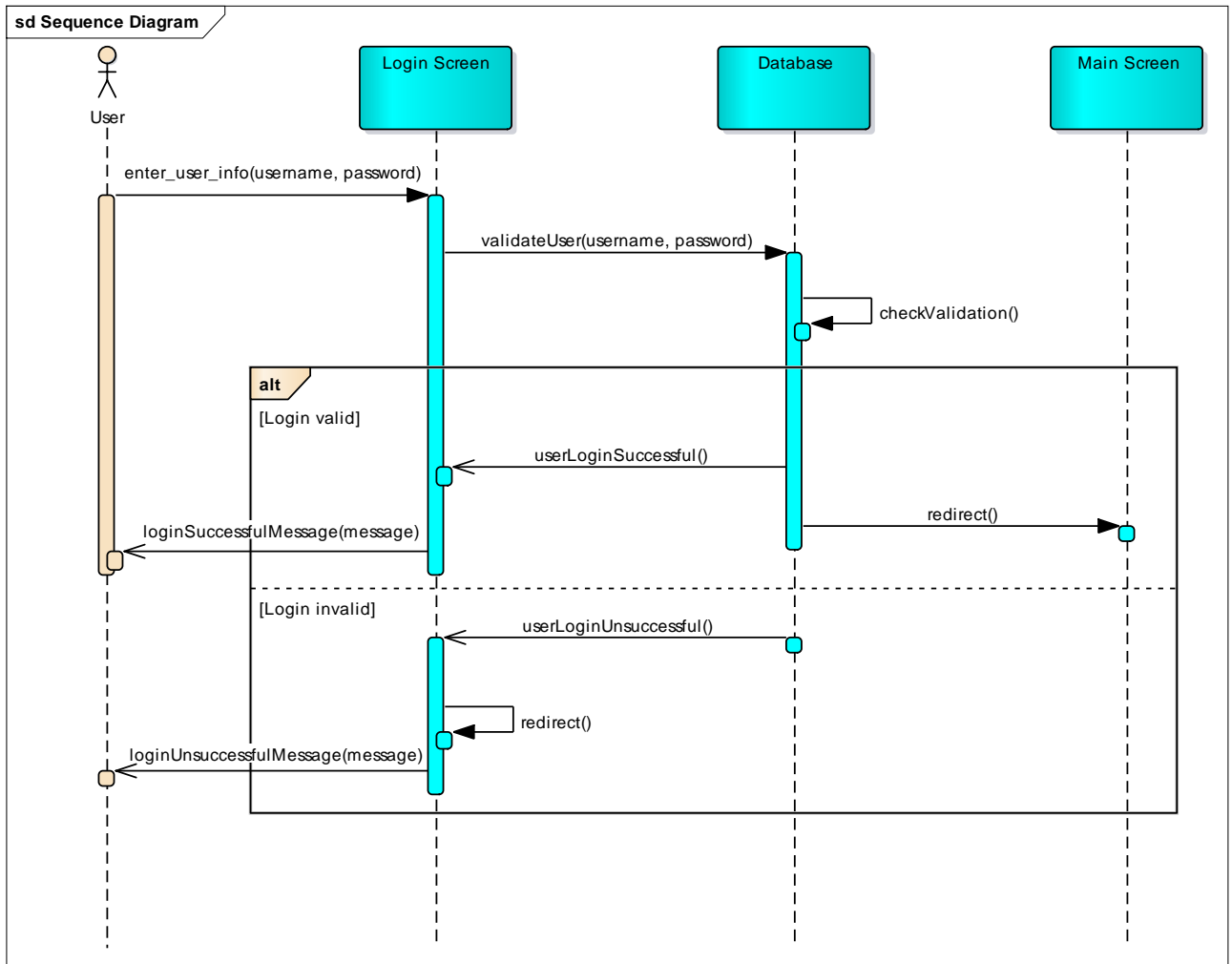
3.7. E/R Diagram

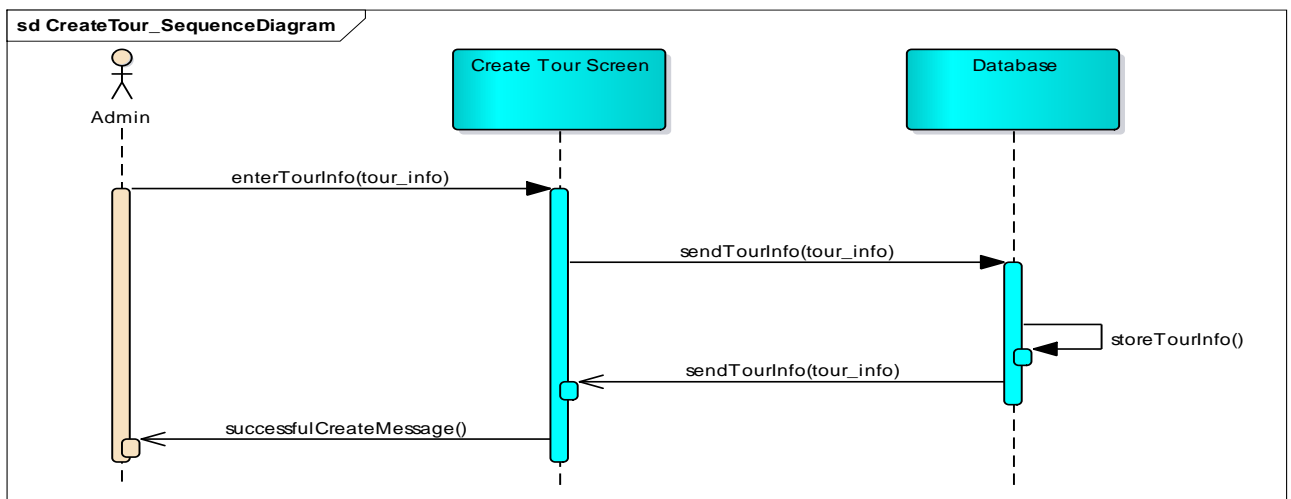# 3.8. Sequence Diagrams

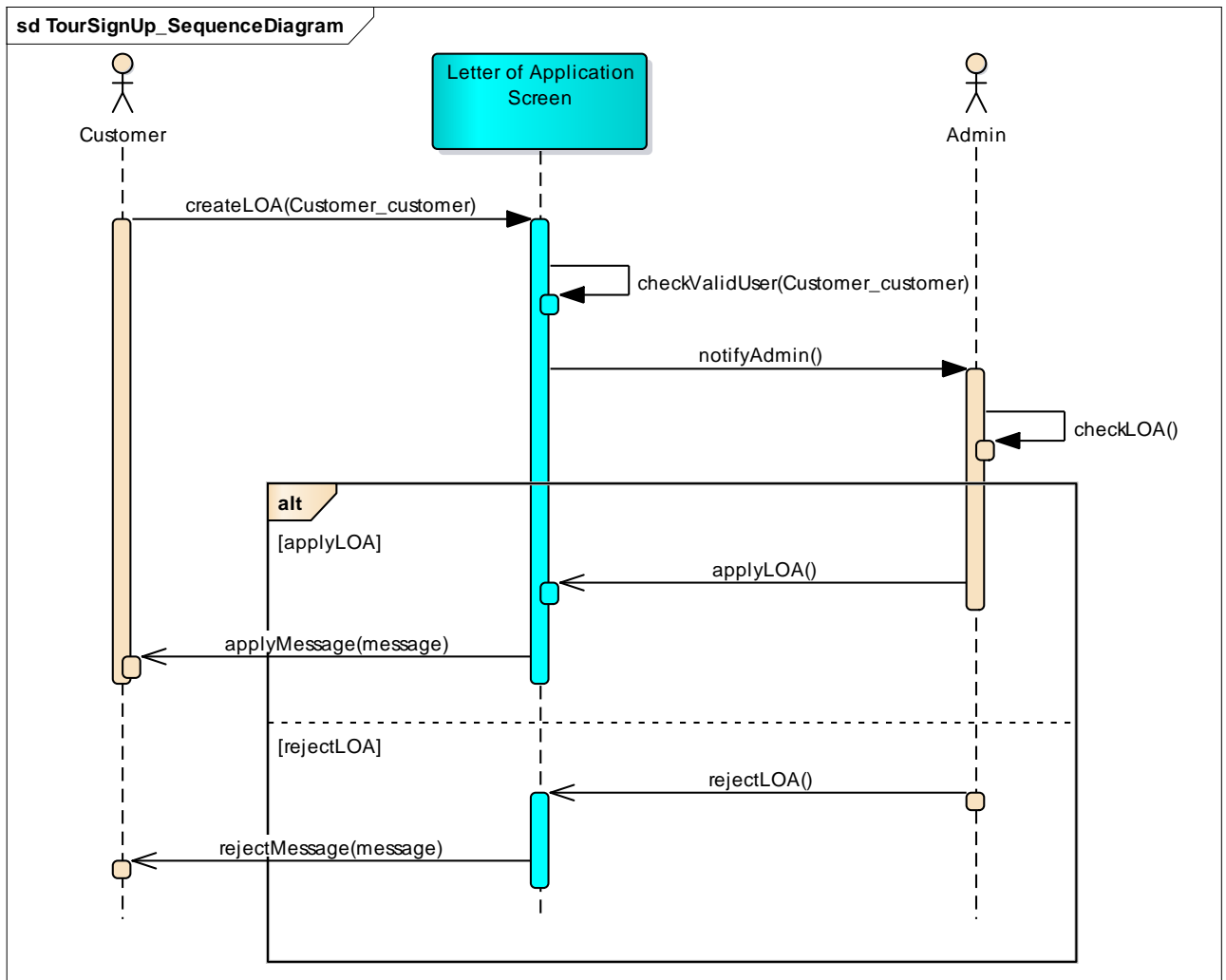### 3.8.1. Sequence Diagram 1: **Create/ManageAccount_SequenceDiagram**

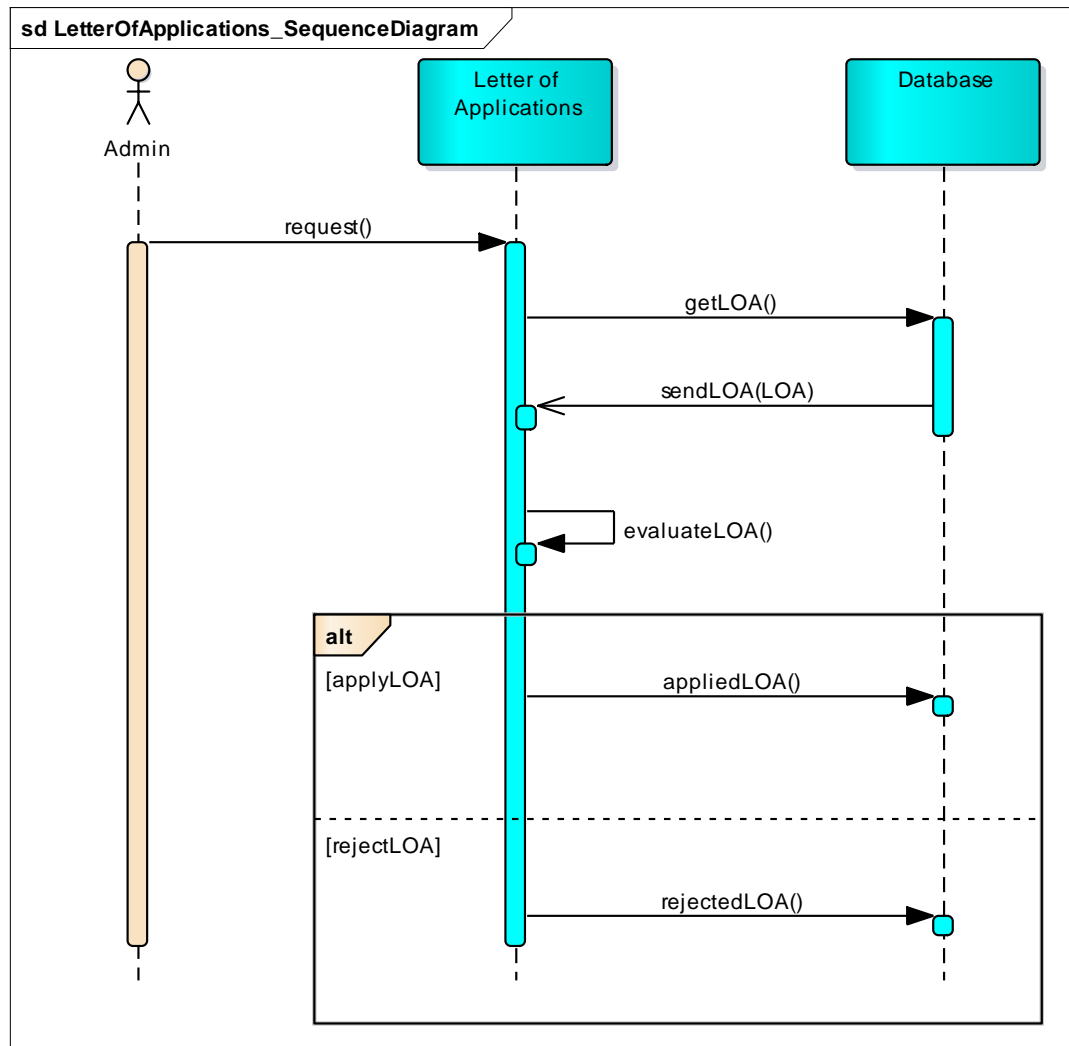### 3.8.2. Sequence Diagram 2: **Login_SequenceDiagram**

3.8.3. Sequence Diagram 3: **CreateTour_SequenceDiagram**

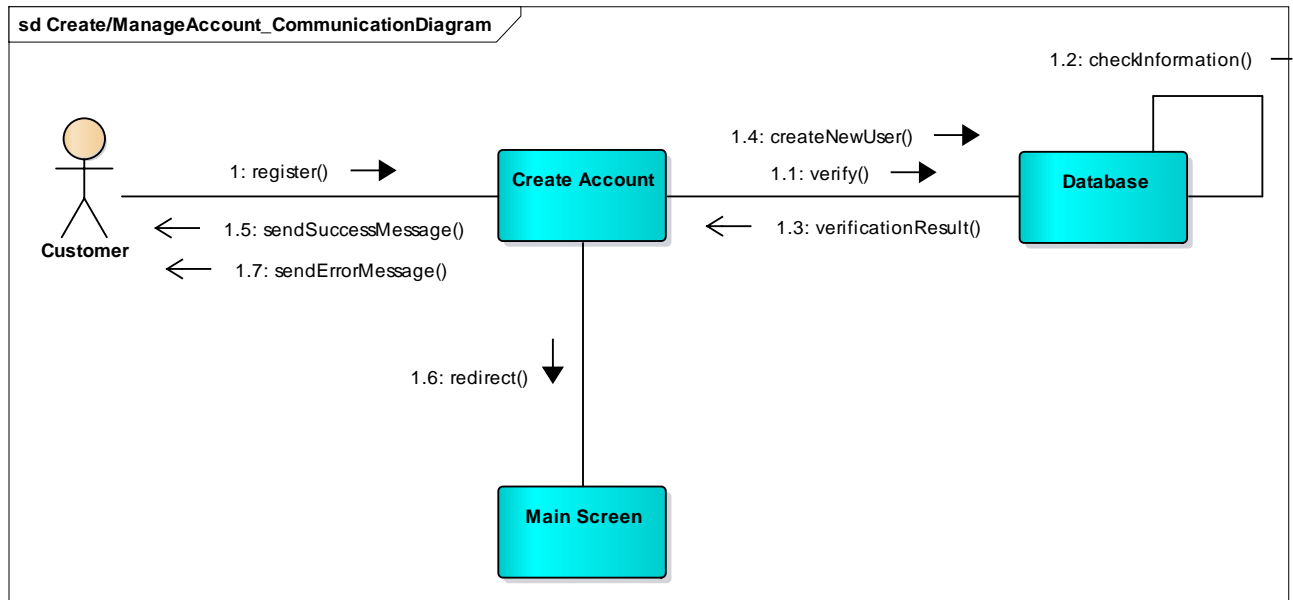### 3.8.4. Sequence Diagram 4: **TourSignUp_SequenceDiagram**

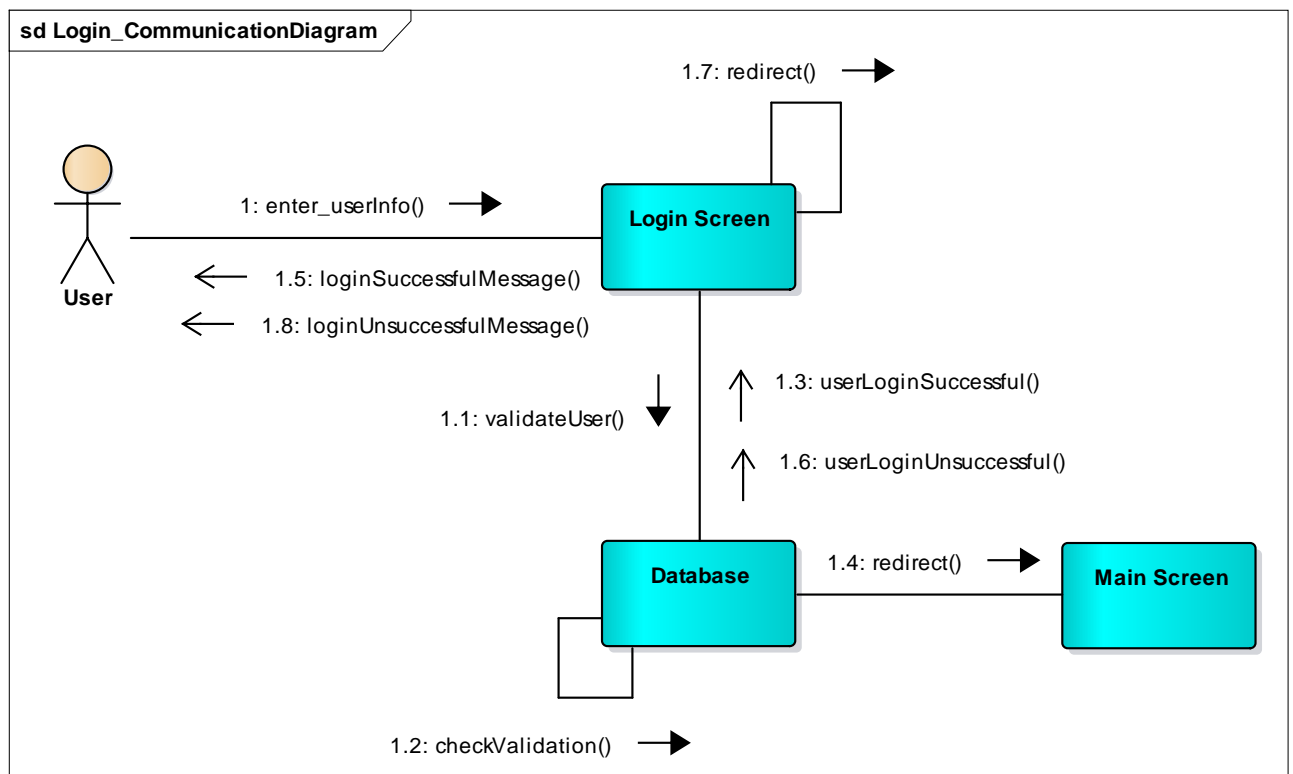3.8.5. Sequence Diagram 5: **LetterOfApplications_SequenceDiagram**
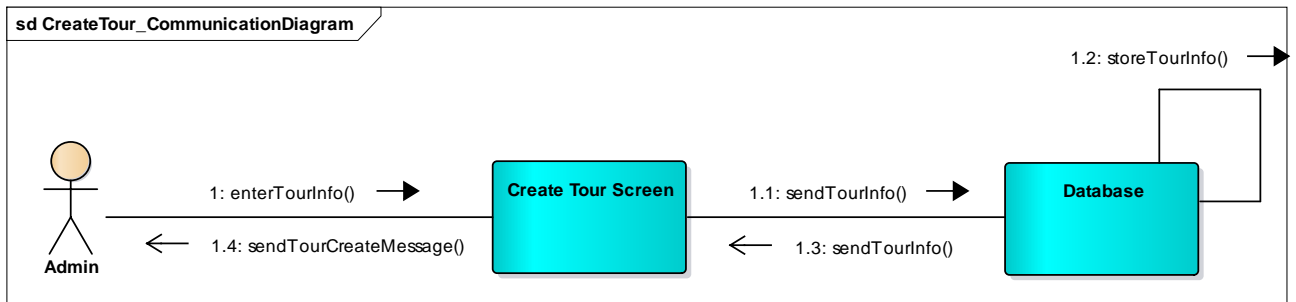
3.9. Communication Diagrams

3.9.1. Communication Diagram 1: **Create/ManageAccount_CommunicationDiagram**
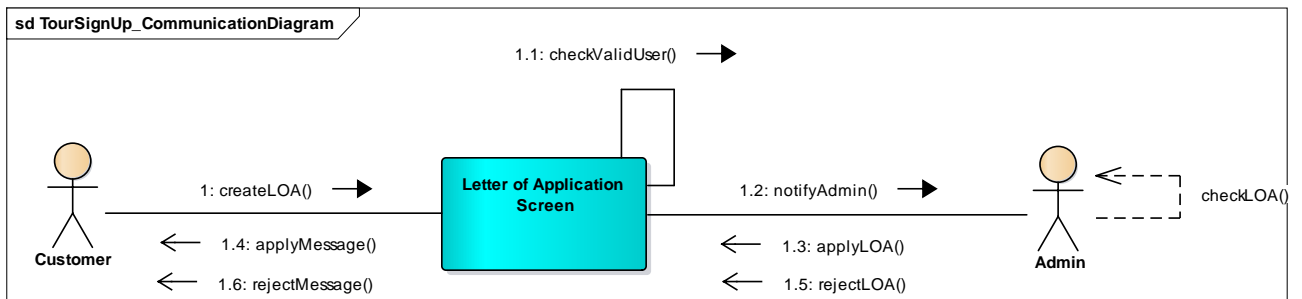

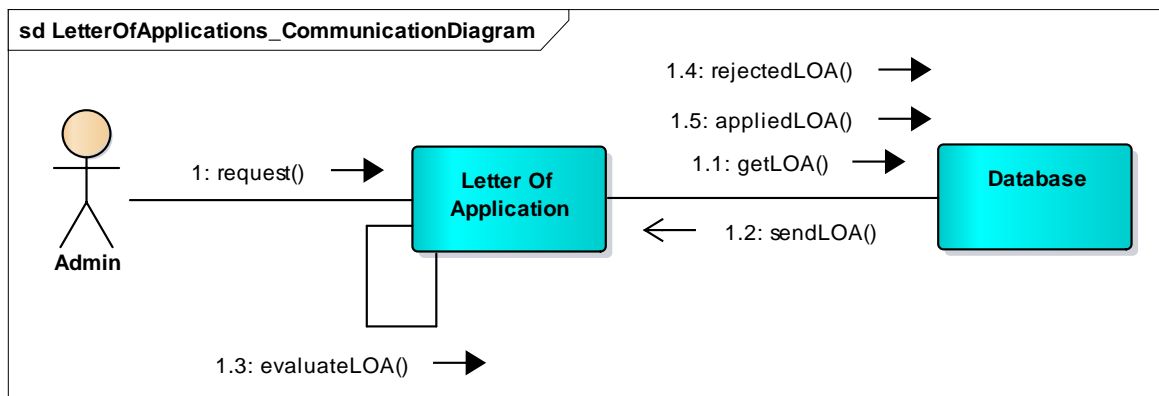### 3.9.2. Communication Diagram 2: **Login_CommunicationDiagram**

3.9.3. Communication Diagram 3: **CreateTour_CommunicationDiagram**

3.9.4. Communication Diagram 4: **TourSignUp_CommunicationDiagram**

3.9.5. Communication Diagram 5: **LetterOfApplications_CommunicationDiagram**

4. Conclusion

The project has concluded with the aim of decreasing the number of problems occurred during travel. All the meetings conducted online due to restrictions. In every single meeting, first check was the tasks for that previous week if they are done or not. The status of our project has been always discussed in every meeting and shown progress according to project schedule. This tour planning systems application has been developer for Özikizler Tourism.