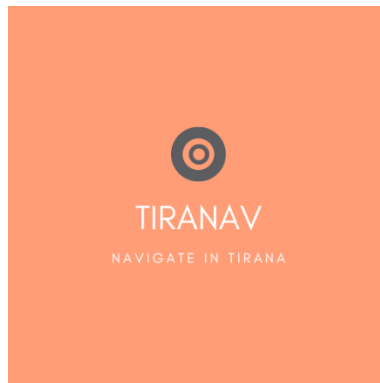


SOFTWARE ENGINEERING II
SOFTWARE ENGINEERING ANALYSIS AND DESIGN



TiraNav

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Accepted by: Prof

Igli Hakrama

Contents:

1. Requirements
2. User Stories
3. Use Case
4. BPMN
5. DFD
6. ERD
7. State Diagram
8. Class Diagram
9. Activity Diagram
10. Collaboration Diagram
11. Sketchers

TiraNav - Tirana Navigation Are you new to the city and you have no idea which bus to get to reach your destination? How many times have you struggled to find the right bus to arrive in your desired location and the most important in time when you were in Tirana?

The solution is now here and it's called TiraNav. TiraNav is the newest app that will change the life of every person that uses the public transport in Tirana. It is an app that will provide you with live schedual and live location of the buses that you will take on your every day life. All you need to do is enter the starting point address where you begin your journey and the destination and TiraNav will make its job and guide you to the final destination providing also the route to the bus station even if you do not know it also it will show you the best combination of buses you need if your destination needs more than one bus. You will be able to track the bus to know how far away it is from you so you would not have to wait in the station for a lot of time anymore. Be smart, make your life easy , download TiraNav now!

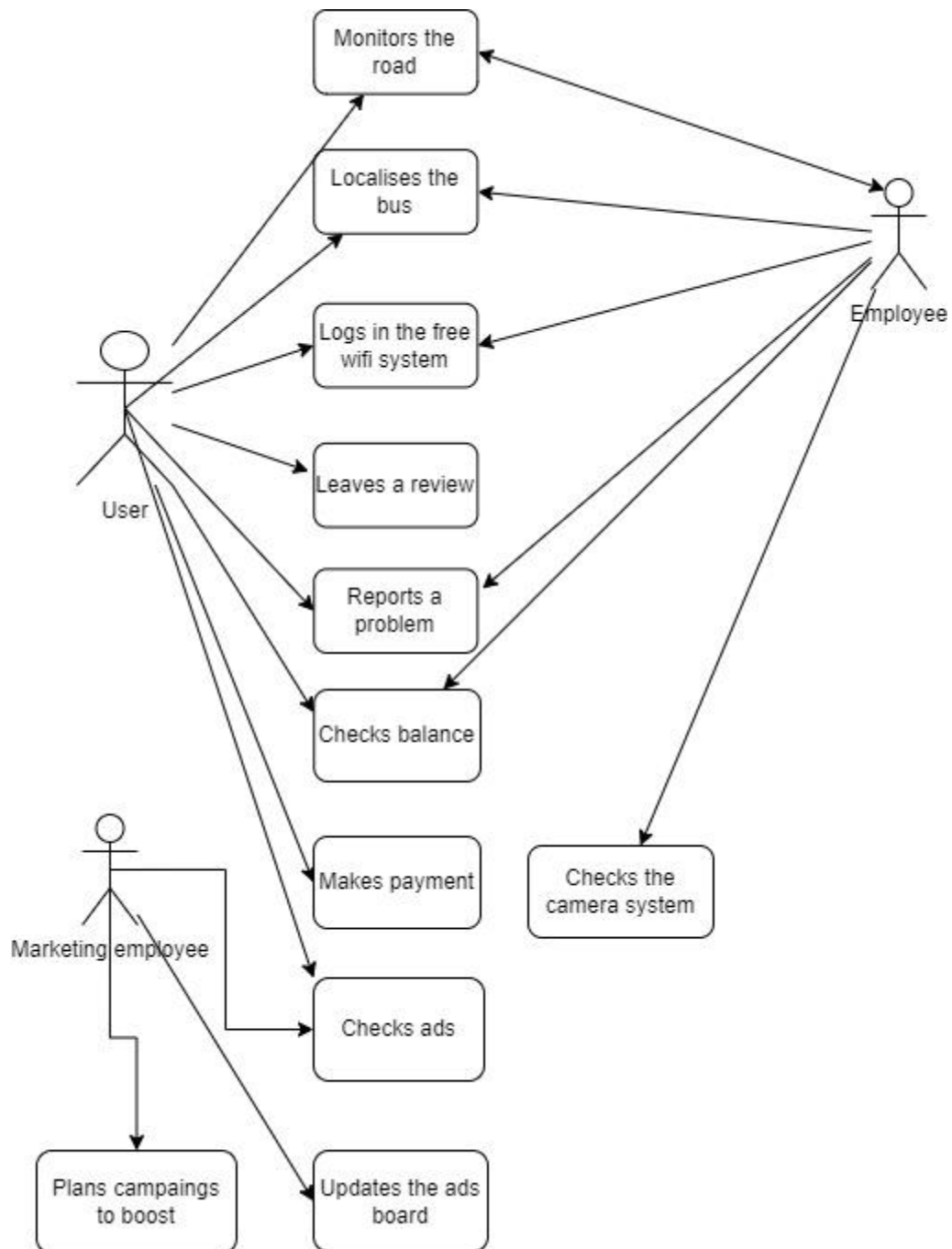
1. Requirements

1. This application should contain all the schedule of time and routes of the buses that are part of Tirana's public transport.
2. TiraNav should be able to access the users live location to provide the needed directions to reach their destination.
3. The app should be able to get track of the buses that would be connected with a GPS tracker to send live info where the bus is.
4. This app should provide information about a specific time and date that the user needs to use the public transport.
5. This app should be able to calculate how much time do you need to reach your destination according to the traffic problems that may occur getting this info from google maps API.
6. The user must be informed how many stops are before his desired destination.
7. The user can buy an online ticket from the app that can be scanned with a QR code from the person responsible for this in the bus.
8. The app should be able to have a scanner for the QR code from the ticket controller , but this part of app is only accessed by the staff .

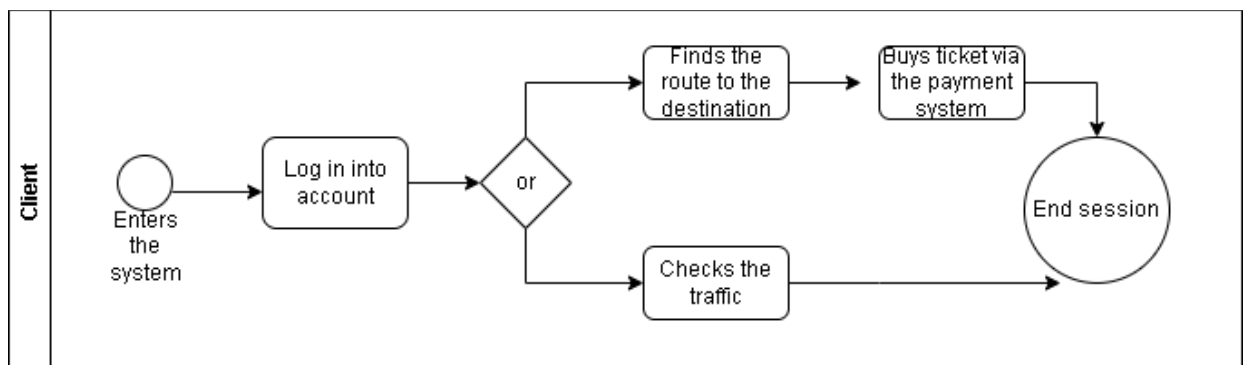
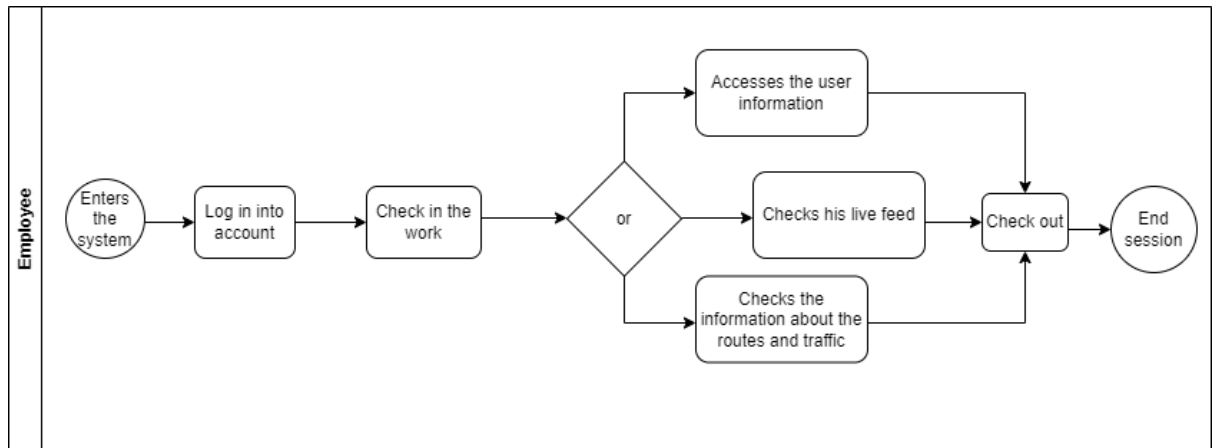
2. User stories

User	Manager	Employee	Economist	Marketing employee
<p>The user should be able to log in the account created in the system.</p> <p>The user should be able to deposit money in the account via credit card or the controller.</p> <p>The user should be able to buy tickets depending on the bus and the stops he will do.</p> <p>The user should be able to leave reviews, comments about the whole experience.</p> <p>The user should be able to access the live location feature.</p>	<p>The manager should have the access to the security cameras attached to each bus.</p> <p>The manager should be able to have access to the employee information, including the attendance.</p> <p>The manager should be able to have thorough information about the routes and live traffic information.</p> <p>The manager should be able to have the highest rank above every other entity in the system.</p> <p>The manager should be able to have access to the employment request tab.</p>	<p>The employee should be able to have access to the user's account information.</p> <p>The user should be able to have its own live chat feed in the page.</p> <p>The employee should be able to check in the work when he logs in and check out when he logs out.</p> <p>The employee should be able to have thorough information about the routes and live traffic information.</p>	<p>The economist should be able to have access to the attendance of the employers.</p> <p>The economist should be able to approve certain offers from the marketing team.</p> <p>The economist should be able to set the wages of the employee based on the details given.</p> <p>The economist should have access to the payment system and survey it.</p>	<p>The marketing employee should be able to run ads and campaigns through the ad boards available in the page.</p> <p>The marketing employee should be able to make offers to selected users depending on some details about the user.</p>

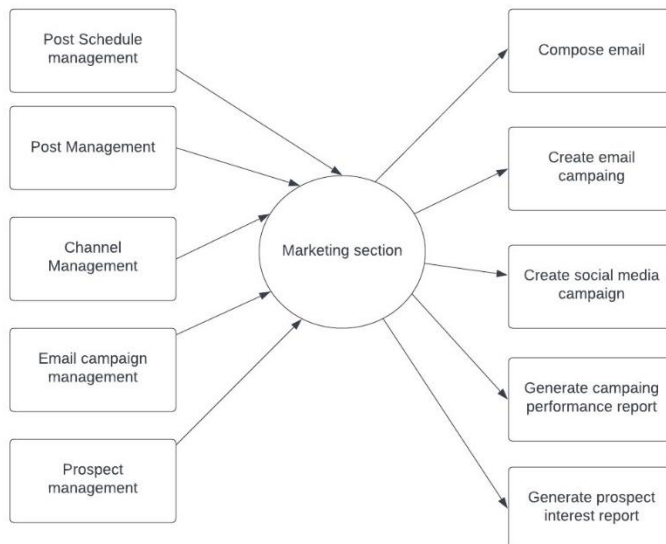
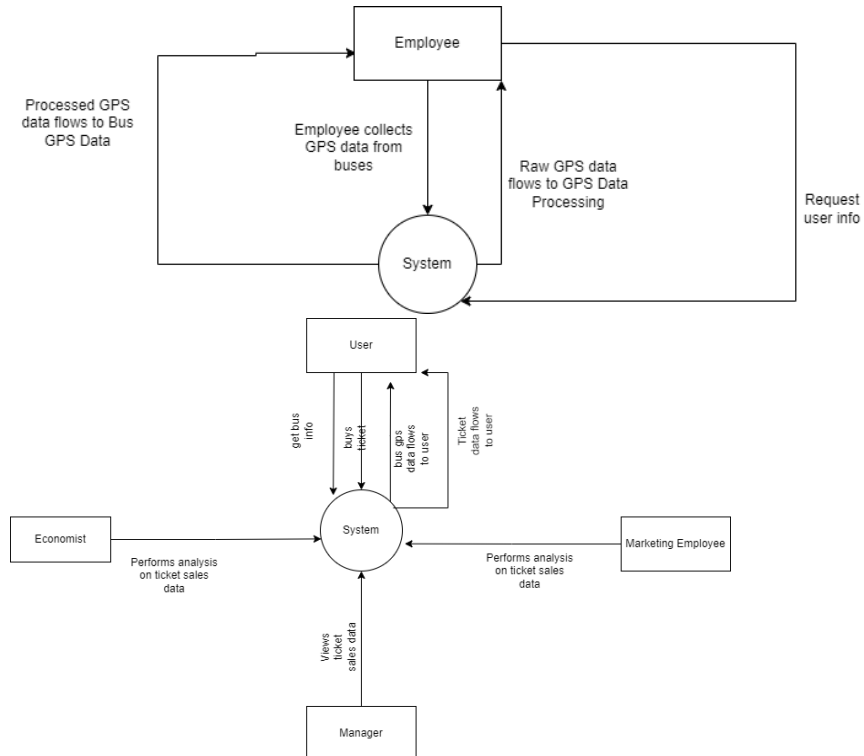
3. Use case



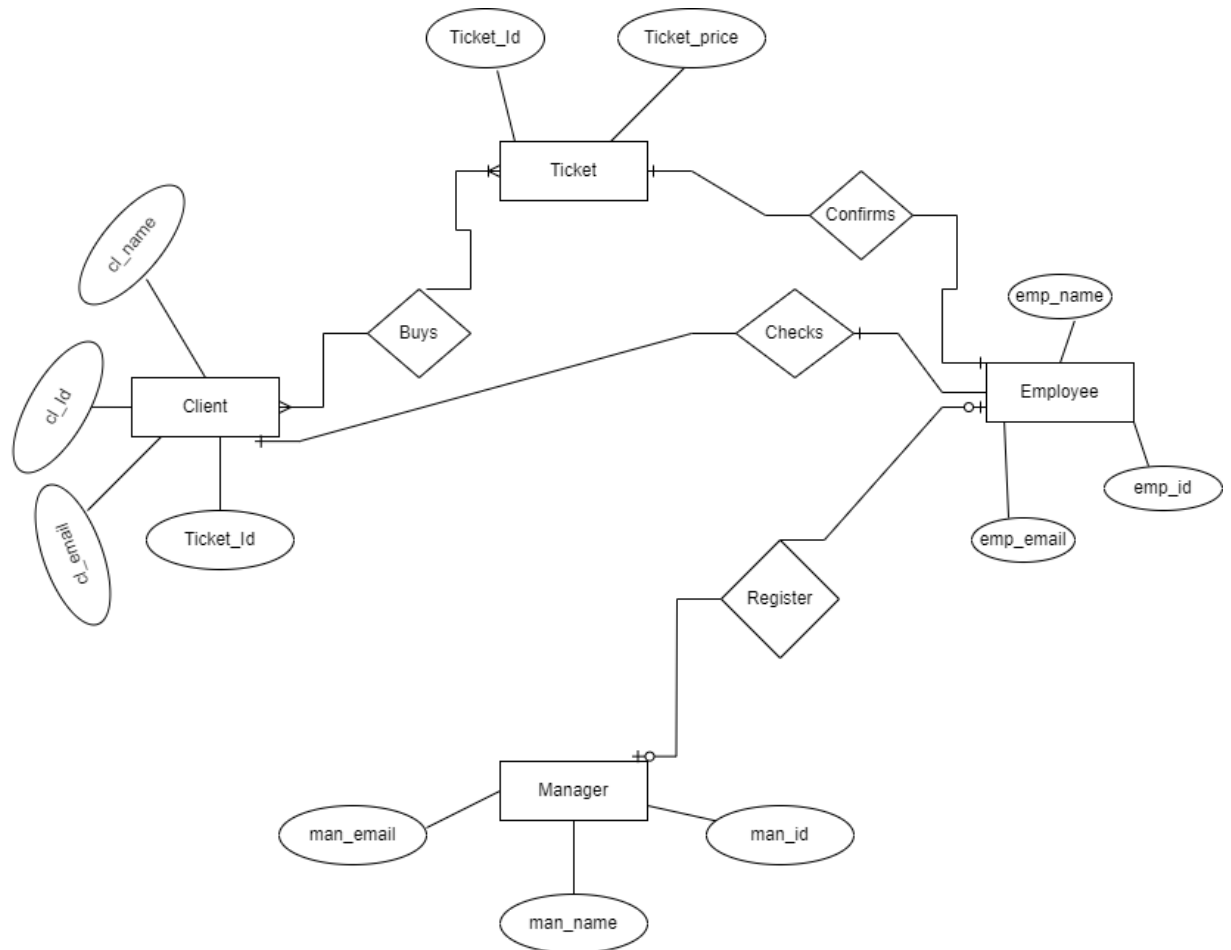
4. BPMN



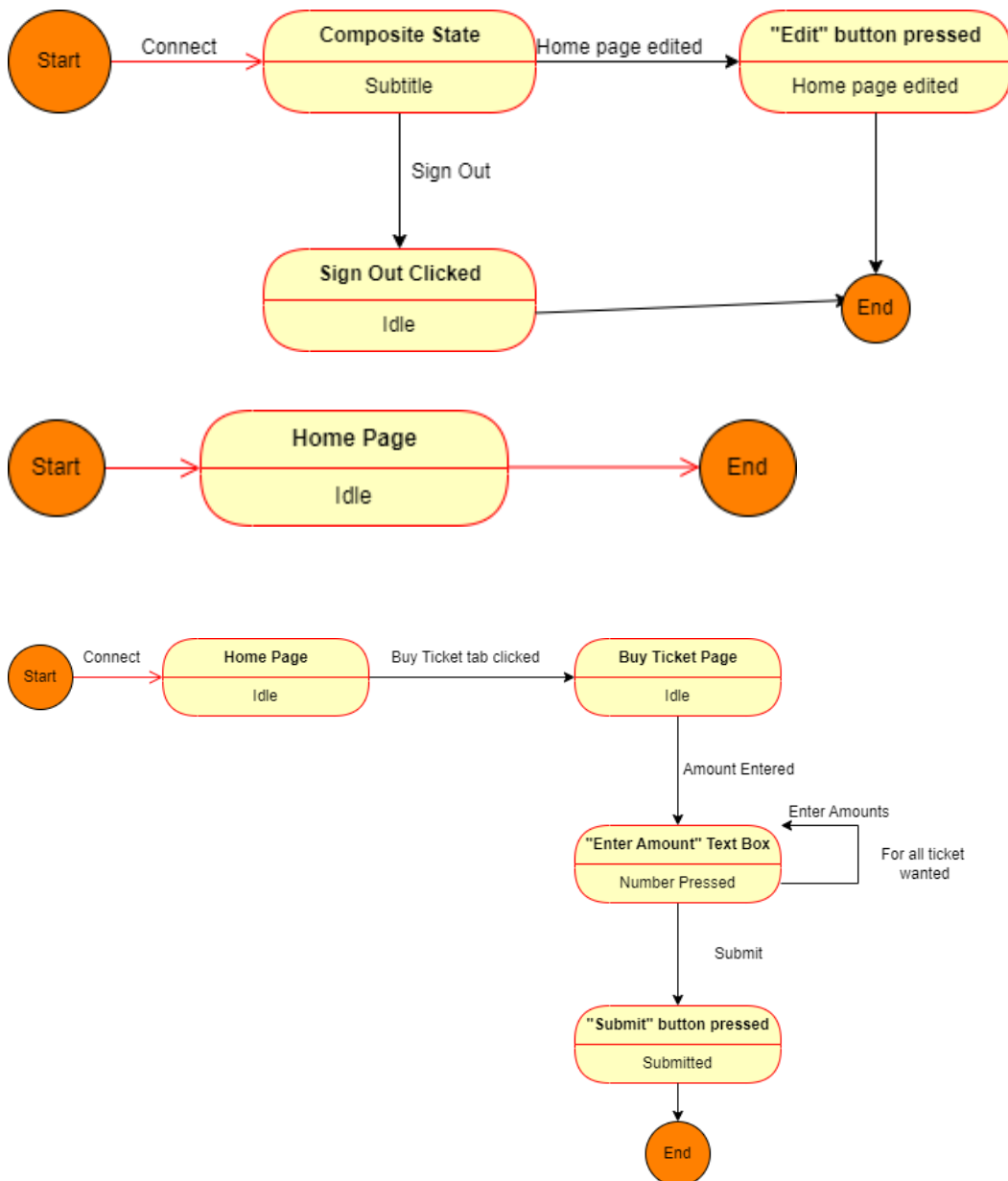
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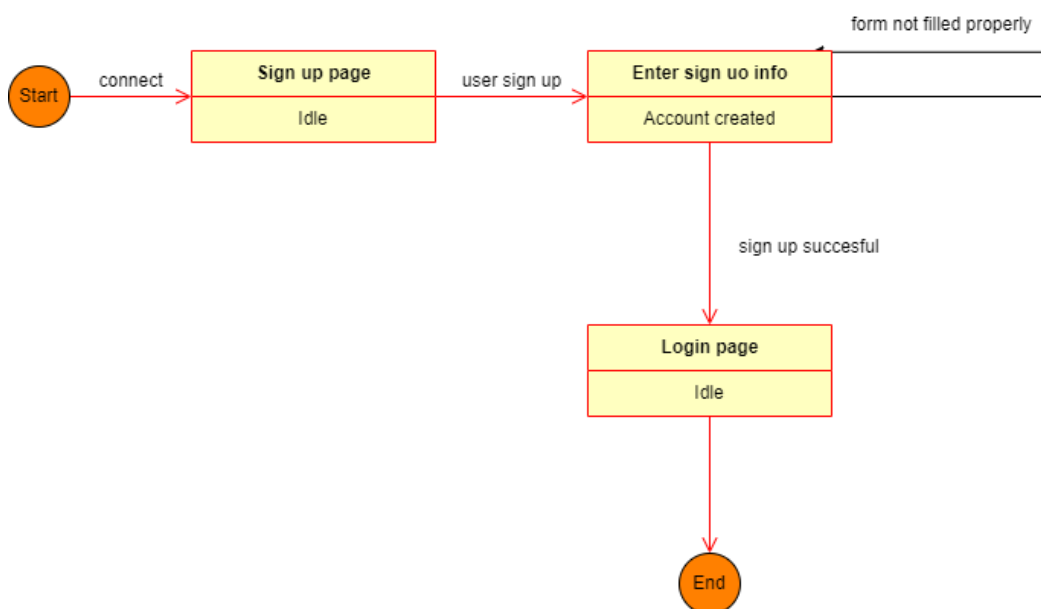
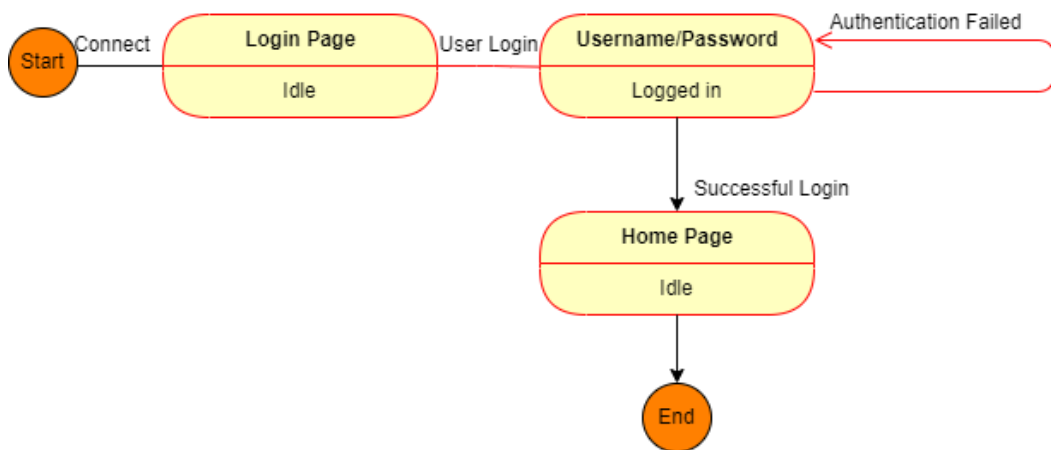
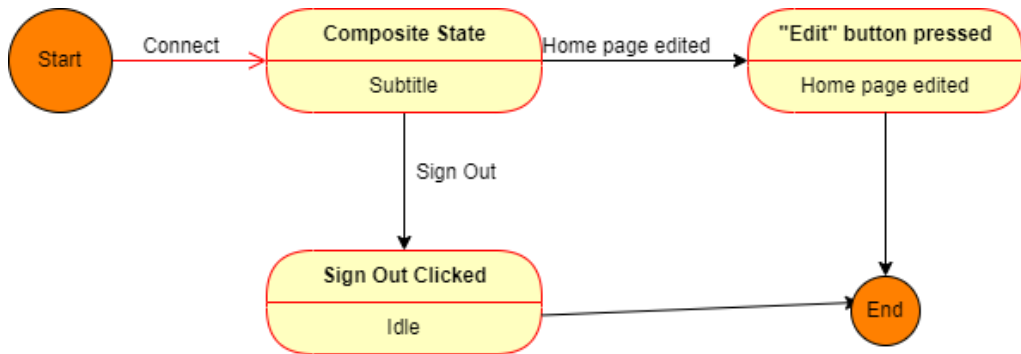


6. ERD

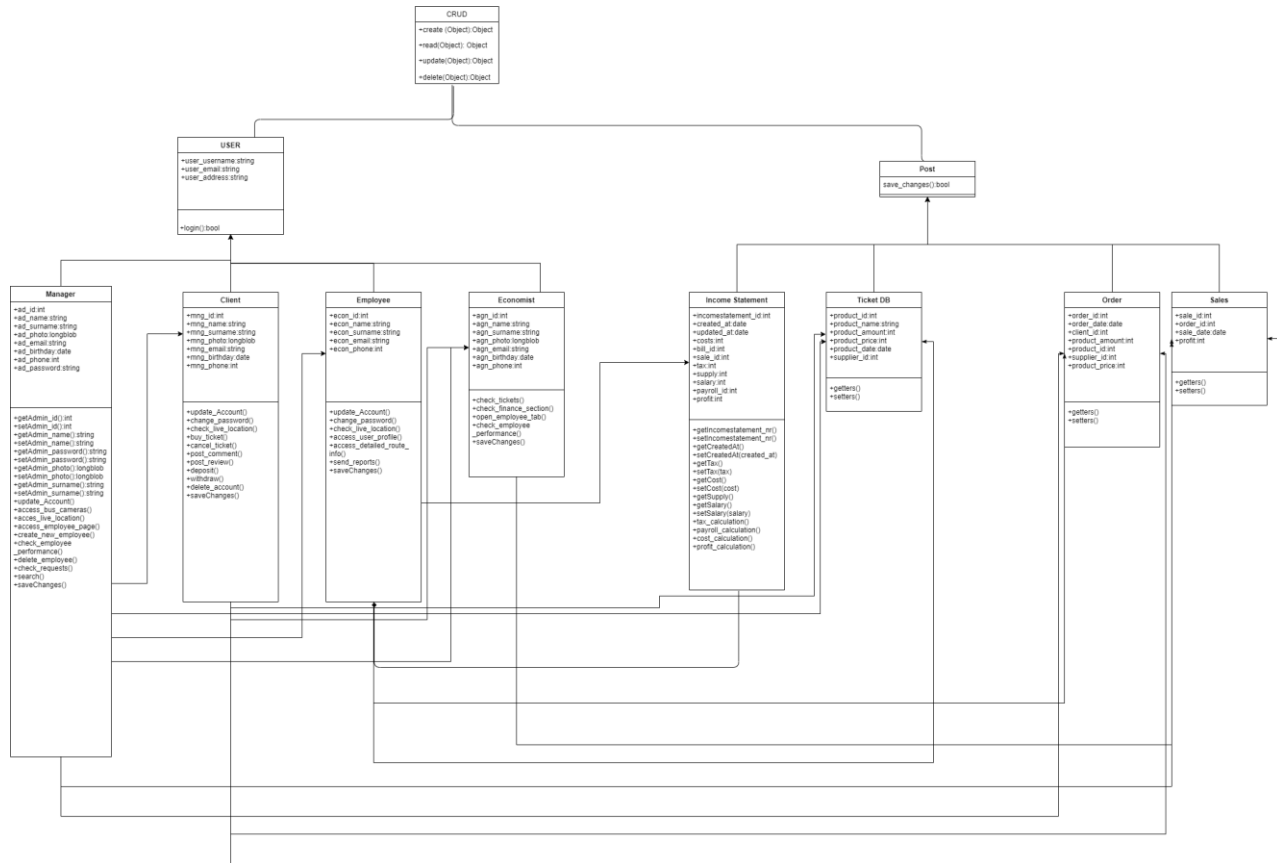


7. State Diagram

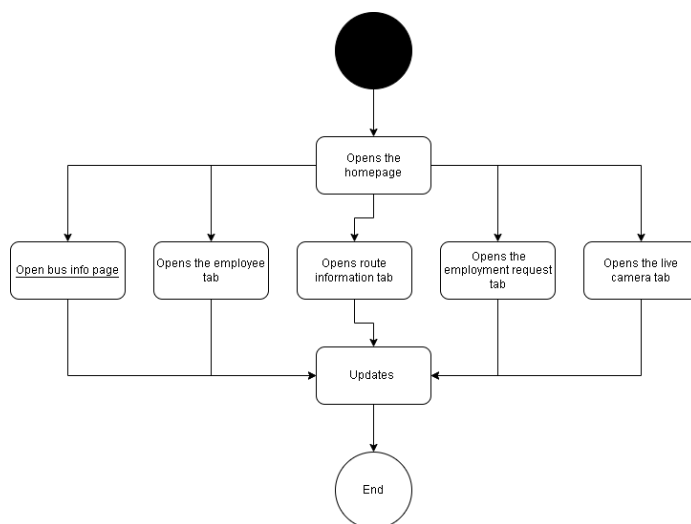
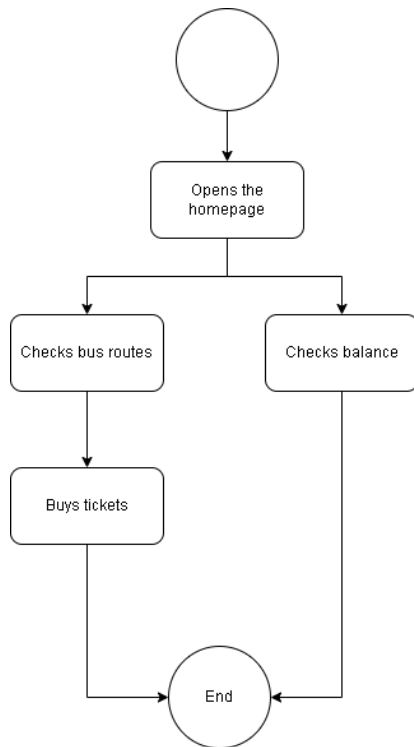


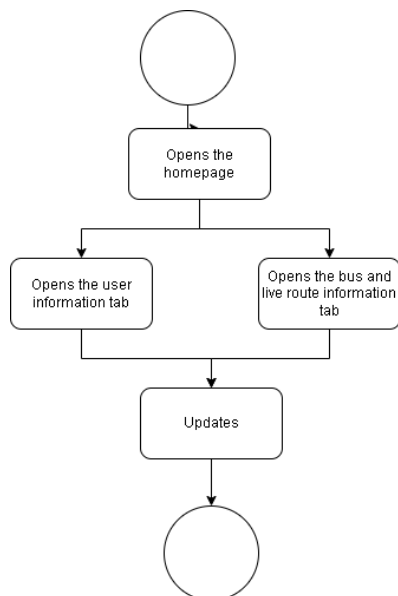
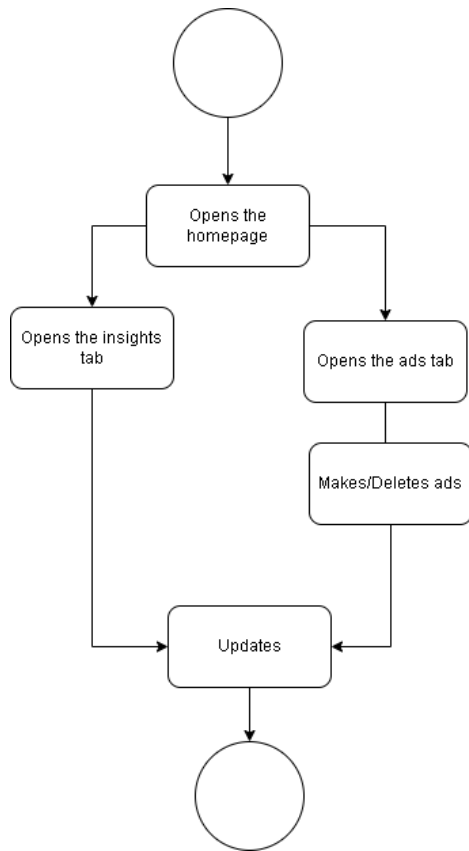


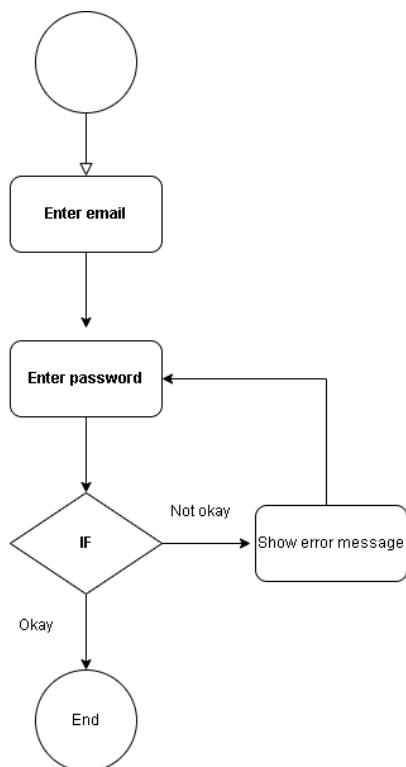
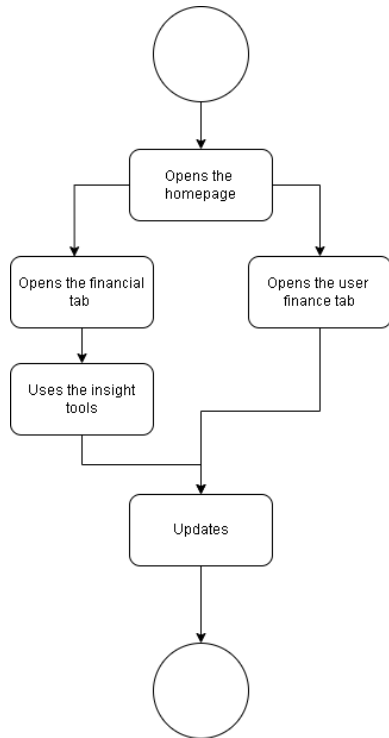
8. Class diagram



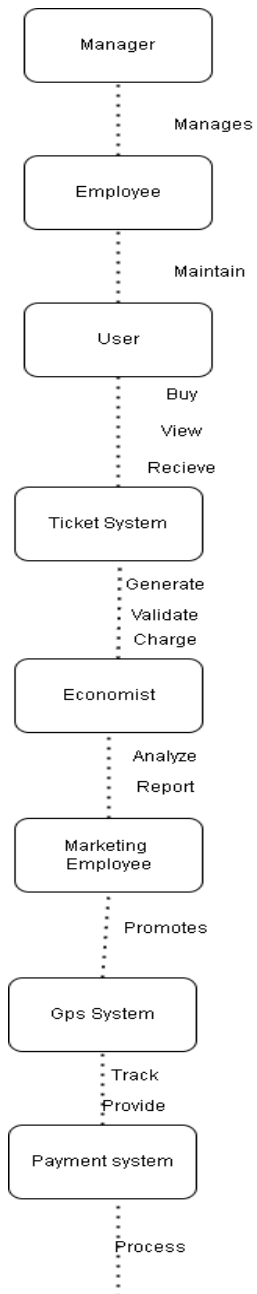
9. Activity diagram







10.Collaboration diagram




11.Sketchers

TIRANAV

USERNAME

LOG IN




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Welcome to TiraNav

Main application to navigate in Tirana through public transport

Buy Ticket



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Tirana E Re 5 minuta 40 lek	Liqeni i Thate
Kombinat	Qender

