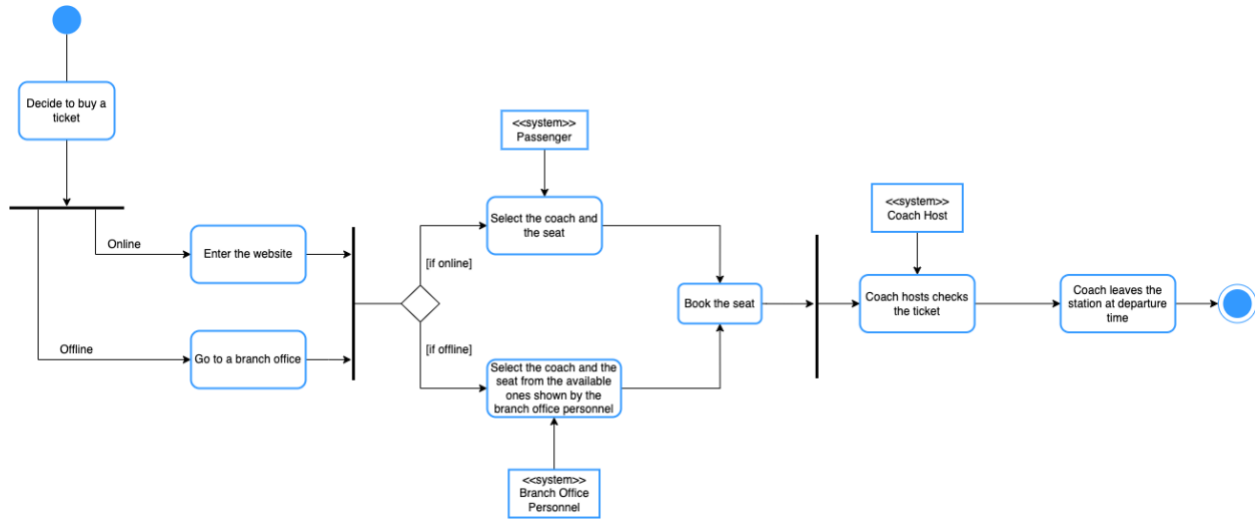


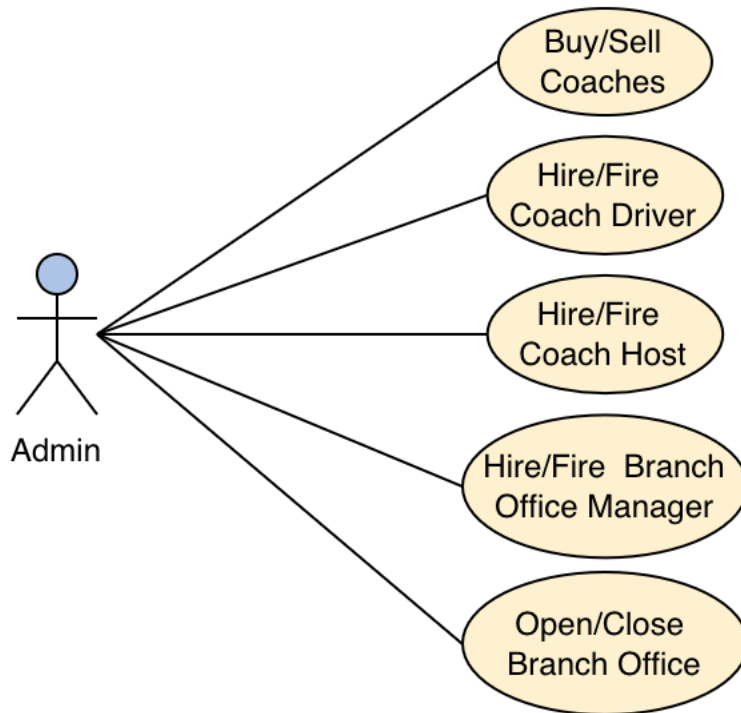
Process Model



Use Case

Stakeholders:

- **Admin:**
This actor is the owner of the Hilal KOÇ Inc.
Roles:
 1. Buy/Sell coach
 2. Hire/Fire coach driver
 3. Hire/Fire coach host
 4. Hire/Fire branch office manager
 5. Open/Close branch office
- **Branch Office Personnel**
This actor sells tickets at branch offices.
Roles:
 1. Sell tickets
- **Coach Driver**
This actor drives coaches.
Roles:
 1. Transport passengers intercity
- **Coach Host**
This actor manages seat occupation in coaches.
Roles:
 1. Manage seat occupation in coaches
- **Branch Office Manager**
This actor keeps the owner of the company informed about his/her branch office in a manner of weekly reports.
Roles:
 1. Hire/Fire branch office personnel
- **Passenger**
This actor buys tickets online or at branch offices.
Roles:
 1. Buy tickets online
 2. Buy tickets at branch offices
 3. Cancel tickets online
 4. Cancel tickets at branch offices



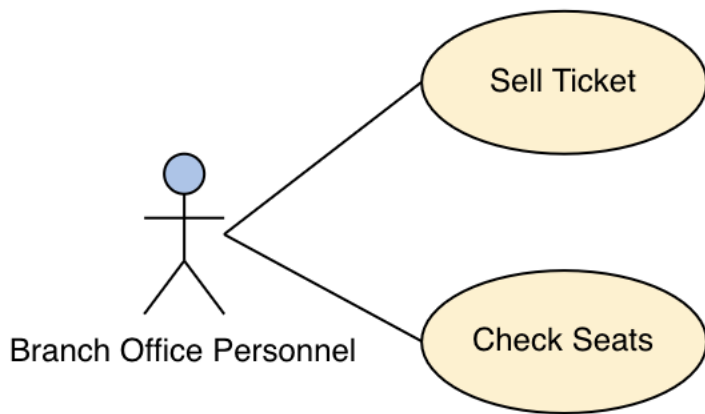
System	Admin
Use Case	Buy/Sell Coaches
Actors	Admin, Coach Driver, Coach Host
Data	Buy Coach: Information about the new coach (plate number, seat capacity, driver, host, etc.), is sent to the system. Sell Coach: Plate number of the coach is sent to system.
Stimulus	Admin send a add/remove couch request to the system.
Response	Buy Coach: The new coach, its driver and host are added to the system. Sell Coach: The coach, its driver and host of that coach are removed from the system.
Comments	Admin buys new coaches if there are too many passengers to transport with current ones or sells some of the current ones if there are too few passengers for current number of coaches and cost for maintenance of coaches are high.

System	Admin
Use Case	Hire/Fire Coach Driver
Actors	Admin, Coach Driver
Data	Hire Coach Driver: Credentials of the new coach driver (ID, address, etc.) and the plate number of the coach he/she will drive are sent to the system. Fire Coach Driver: ID of the coach driver is sent to the system.
Stimulus	Admin sends a add/remove coach driver request to the system.
Response	Hire Coach Driver: The new coach driver is added to the system. Fire Coach Driver: The coach driver is removed from the system.
Comments	If admin enters an ID that is not in the system on remove process, an error will pop up.

System	Admin
Use Case	Hire/Fire Coach Host
Actors	Admin, Coach Host
Data	Hire Coach Host: Credentials of the new coach host (ID, address, etc.) and the plate number of the coach he/she will work in are sent to the system. Fire Coach Host: ID of the coach host is sent to the system.
Stimulus	Admin sends a add/remove coach host request to the system.
Response	Hire Coach Host: The new coach host is added to the system. Fire Coach Host: The coach host is removed from the system.
Comments	If admin enters an ID that is not in the system on remove process, an error will pop up.

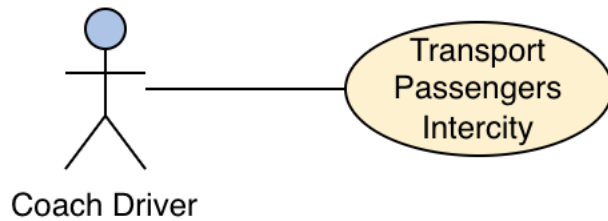
System	Admin
Use Case	Hire/Fire Branch Office Manager
Actors	Admin, Branch Office Manager
Data	Hire Branch Office Manager: Credentials of the new branch office manager (ID, address, etc.) and the name of the branch he/she will work in are sent to the system. Fire Branch Office Manager: The branch office branch is removed from the system.
Stimulus	Admin sends a add/remove branch office manager request to the system.
Response	Hire Branch Office Manager: The new branch office manager is added to the system. Fire Branch Office Manager: The branch office manager is removed from the system.
Comments	If admin enters an ID that is not in the system on remove process, an error will pop up.

System	Admin
Use Case	Open/Close Branch Office
Actors	Admin, Branch Office Manager, Branch Office Personnel
Data	Open Branch Office: Information about the new branch office (address, working hours, manager, personnel, name, etc.) is sent to the system. Close Branch Office: Name of the branch is sent to the system.
Stimulus	Admin sends a add/remove branch office request to the system.
Response	Open Branch Office: The new branch office, its manager and personnel are added to the system. Close Branch Office: The branch office, its manager and personnel are removed from the system.
Comments	If admin enters a name that is not in the system on remove process, an error will pop up.

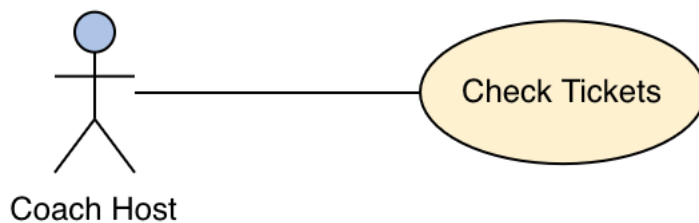


System	Branch Office Personnel
Use Case	Sell Ticket
Actors	Branch Office Personnel, Passenger
Data	Name of the passenger, seat number and the departure time are sent to the system.
Stimulus	Branch office personnel sends a ticket sale request to the system.
Response	The seat is booked for the passenger.
Comments	This may stimulate the admin to buy new coaches if ticket sales exceed the expected amount.

System	Branch Office Personnel
Use Case	Check Seats
Actors	Branch Office Personnel, Passenger
Data	Coach of the passenger's choice is sent to the system.
Stimulus	Branch office personnel sends a check seats request to the system.
Response	Available seats of the chosen coach are shown.
Comments	This is done before the ticket sale to show the passenger available seats.

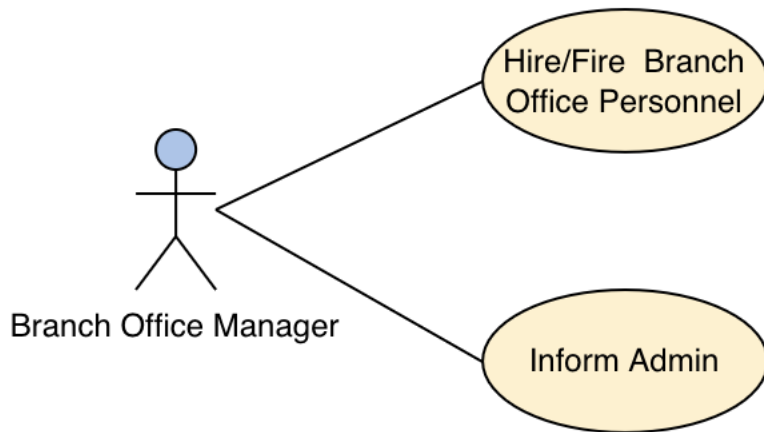


System	Coach Driver
Use Case	Transport Passengers Intercity
Actors	Coach Driver
Data	Plate number of the couch is sent to the system.
Stimulus	Departure time of the coach arrives.
Response	Coach is removed from the available coaches since it leaves the station.
Comments	This costs fuel and impact the financial situation of the company in negative direction.



System	Coach Host
Use Case	Check Tickets
Actors	Coach Host, Passenger
Data	Ticket number is sent to the system.

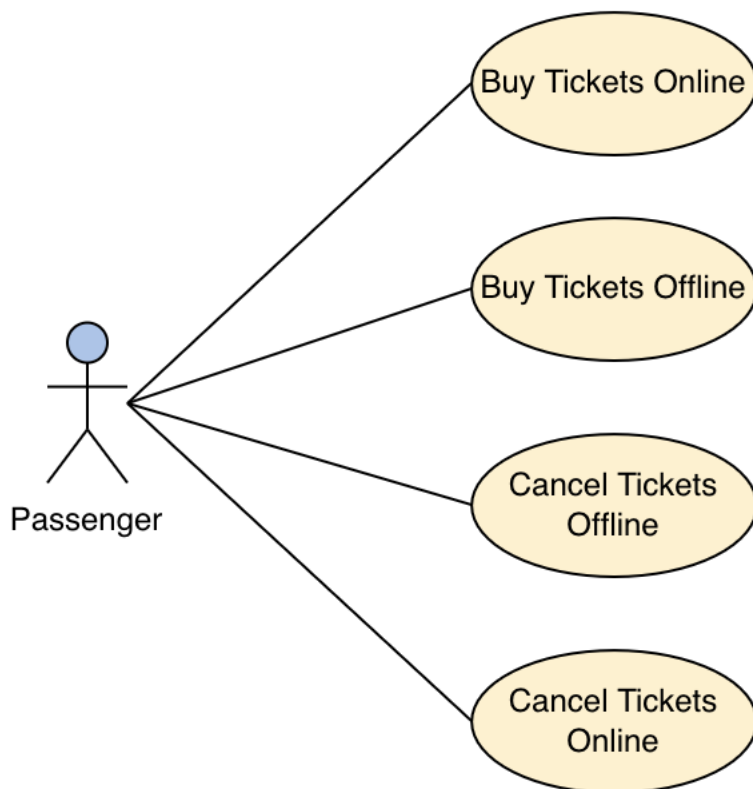
Stimulus	Coach host scans the QR code on the ticket.
Response	Passenger sits down his/her seat if the ticket is valid.
Comments	If the ticket is not valid, coach host escorts the passenger to the outside the of the coach.



System	Branch Office Manager
Use Case	Hire/Fire Branch Office Personnel
Actors	Branch Office Manager, Branch Office Personnel
Data	Hire Branch Office Personnel: Information about the new personnel (name, address, ID, etc.) is sent to the system. Fire Branch Office Personnel: ID of the branch office personnel is sent to the system.
Stimulus	Branch office manager sends an add/remove branch office personnel request to the system.
Response	Hire Branch Office Personnel: The new branch office personnel is added to the system. Fire Branch Office Personnel: The branch office personnel is removed from the system.
Comments	If branch office manager enters an ID that is not in the system on remove process, an error will pop up.

System	Branch Office Manager
Use Case	Inform Admin
Actors	Branch Office Manager, Admin

Data	A report including the statistics of the branch office is sent to the system.
Stimulus	Admin sends report request to the branch office manager.
Response	The report is sent to the admin.
Comments	This is usually done once a month.



System	Passenger
Use Case	Buy Tickets Online
Actors	Passenger
Data	Seat number, the plate number of the coach and, email address and name of the passenger are sent to the system.
Stimulus	Passenger sends a ticket purchase request to the system.
Response	The chosen seat of the chosen coach is booked for the passenger and a copy of the ticket is sent to the passenger by email
Comments	An error might pop up if the chosen seat gets booked by another passenger while the passenger is trying to book it.

System	Passenger
Use Case	Buy Tickets Offline
Actors	Passenger, Branch Office Personnel
Data	Seat number, the plate number of the coach and, name of the passenger are sent to the system.
Stimulus	Branch office personnel sends a ticket sale request to the system.
Response	The chosen seat of the chosen coach is booked for the passenger.
Comments	This may stimulate the admin to buy new coaches if ticket sales exceed the expected amount.

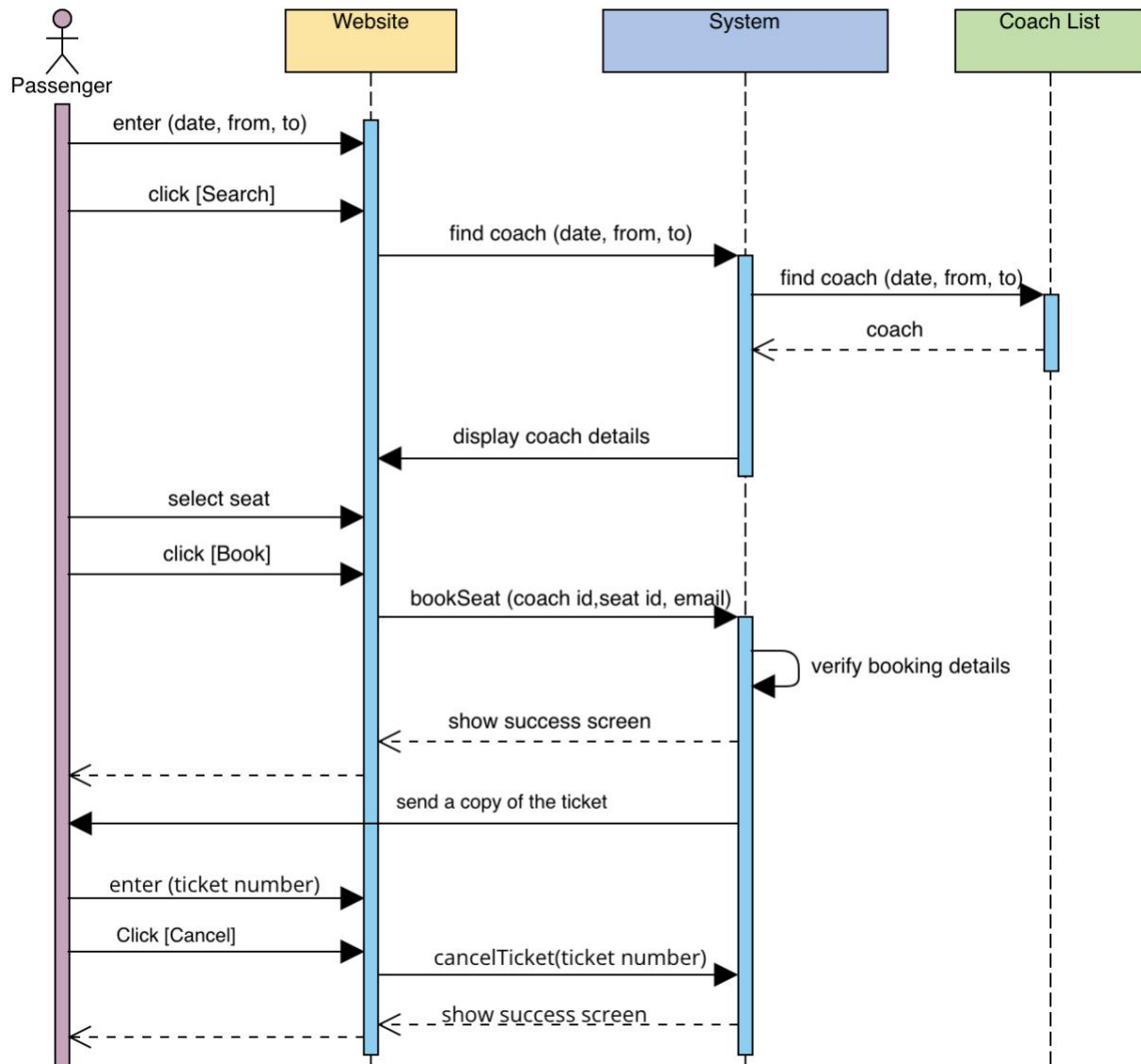
System	Passenger
Use Case	Cancel Tickets Offline
Actors	Passenger, Branch Office Personnel
Data	Ticket number is sent to the system.
Stimulus	Branch office personnel scans the QR code on the ticket
Response	The seat is unbooked.
Comments	If this is done at least an hour before the departure time, company will refund.

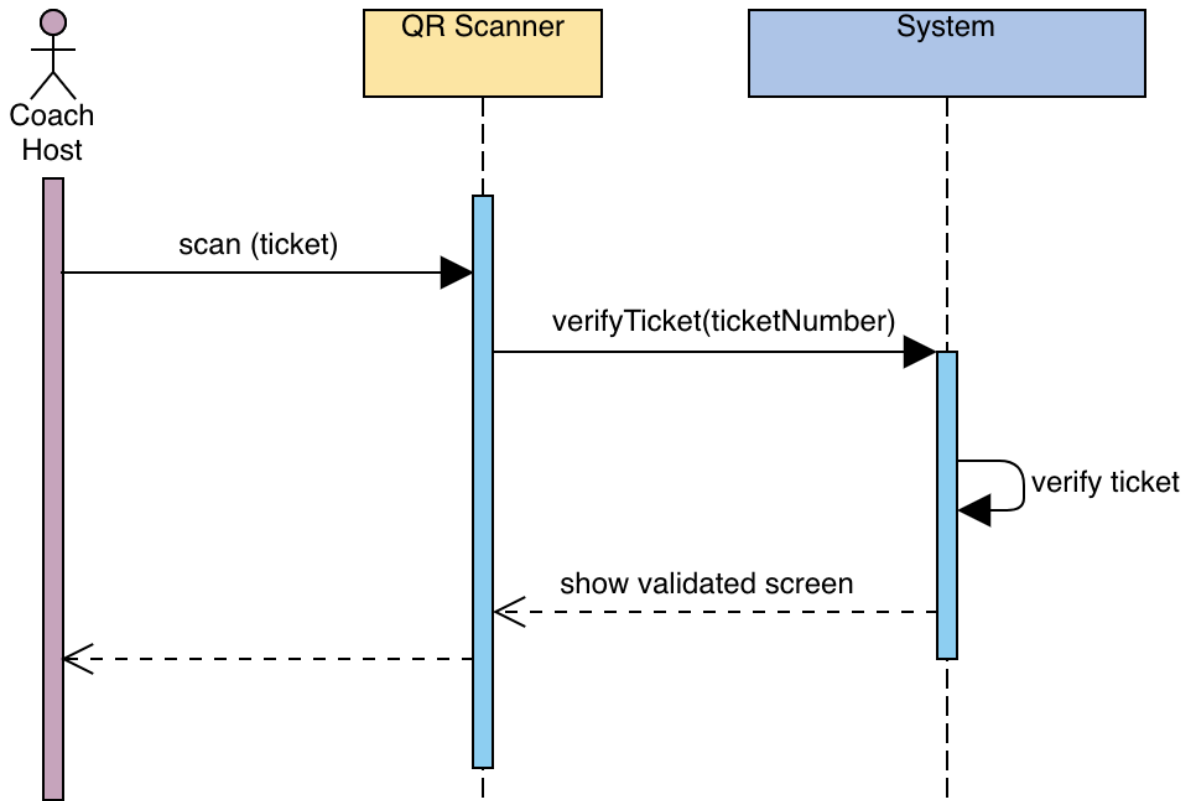
System	Passenger
Use Case	Cancel Tickets Online
Actors	Passenger
Data	Ticket number is sent to the system.
Stimulus	Passenger enters the ticket number.
Response	The seat is unbooked.
Comments	If this is done at least an hour before the departure time, company will refund.

Preparing the use case diagram without going into details was challenging for me because I like to see the details. Also, determination of the actors was a bit difficult because I kept asking this question all the time: do I really need this actor, is he/she essential for the system to work correctly?

P.S. I used the word personnel as singular.

Sequence Diagrams





Class Diagram

