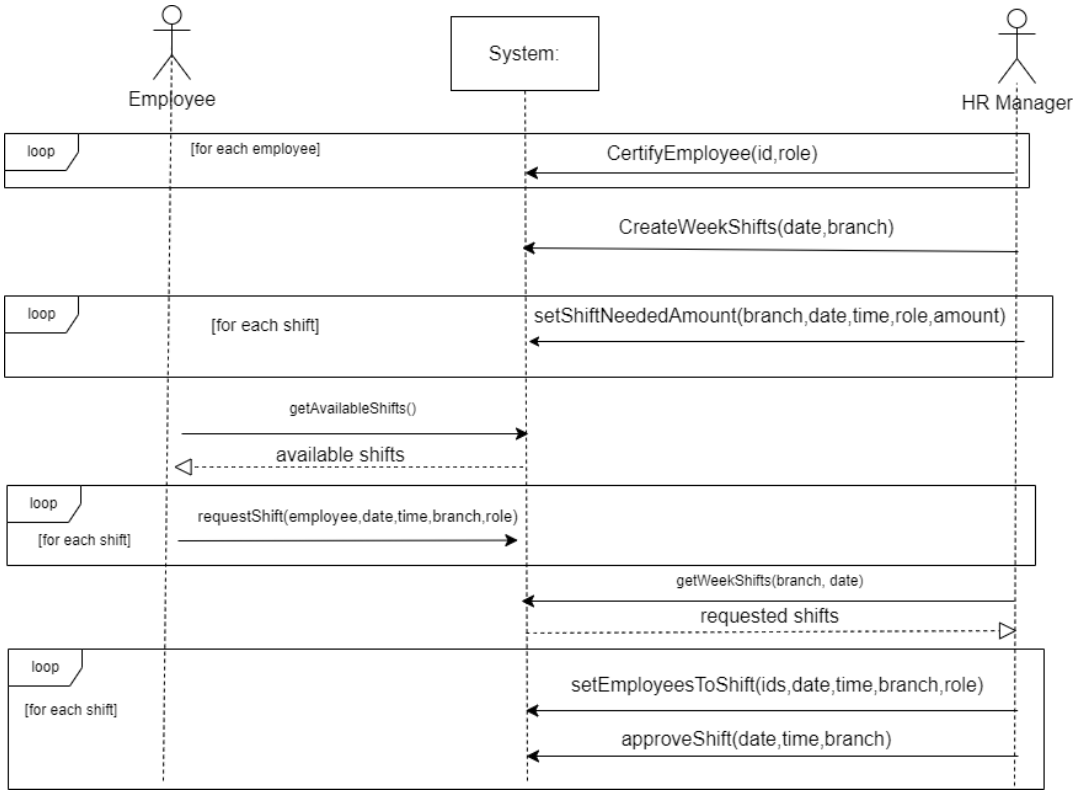
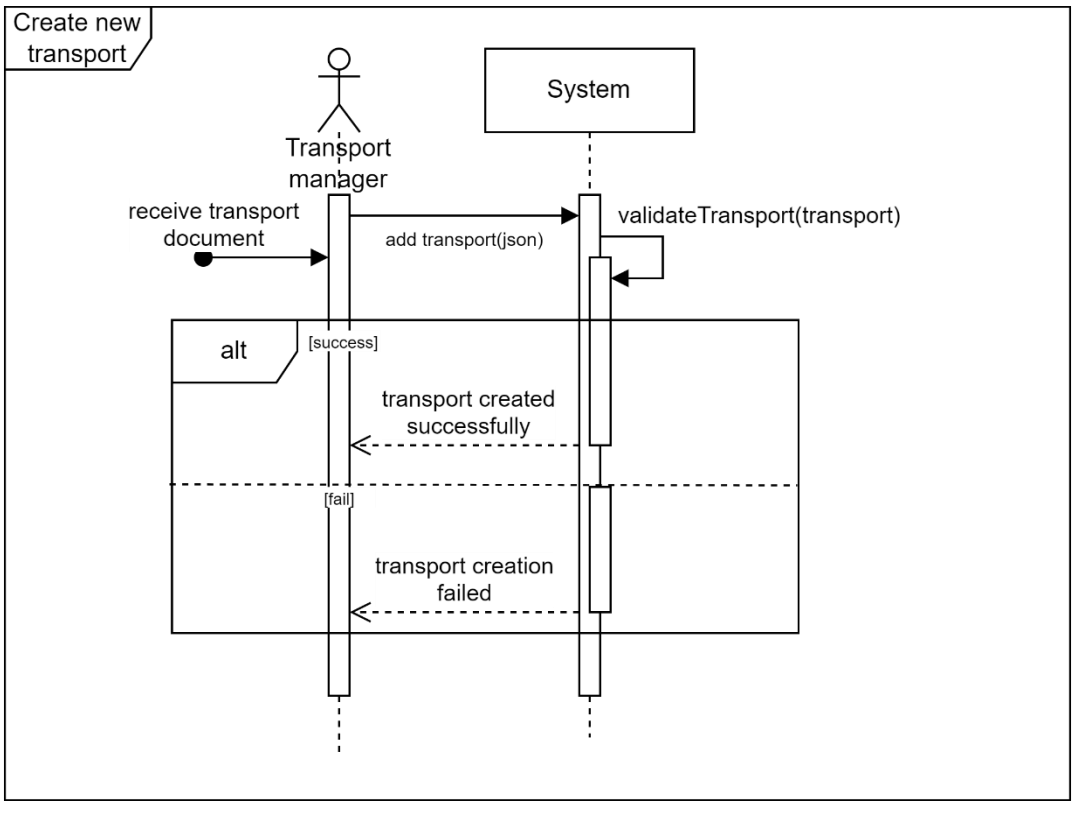
1.B

Use case name: Assign Employees To Shifts.
Textual Description: Process of assigning employees to shifts that take place in different times and different branches.
List of Actors: HR manager, Employee.
Pre-conditions: Employee and HR Manager are identified and authenticated.
Post-conditions: Shift exists (created), Employee is registered to it to a role he requested in it, while he is certified to do that role. Employee is registered to only one role in a shift. Employee is not registered to any other shift that happens at the same day. Employee is not registered to more than 6 shifts that week. Employee is part of the branch the shift takes place in.
Main success scenario: 1.HR manager certifies an employee to take part in certain roles. 2.HR manager creates shifts for a given week, to a given branch. 3.Employee chooses his shifts out of the available choices that are relevant to him. 4.For each shift, an employee has to specify which role he wants to undertake, that he is also certified to do. 5.HR manager will get the employee's requests for shifts and roles and register him to shifts according to his desire.
Alternatives/Extensions: 2. HR manager can specify needed roles for particular shifts and how many workers are needed for each role in each shift. 3a. Employee already registered to a shift that day, registered to 6 shifts that week: 1. Request won't be sent. 4a. Employee chooses a role he is not certified to be: 1. Request won't be sent. 5a. HR manager tries to register an employee to a shift and/or role he had not requested: 1. Registration will fail, effect won't take place and a notice will be sent. 6. HR manager will verify the shift. 6a. Shift didn't reach the needed amount of employees in every needed role: 1. A warning notice will be sent.



Use case name: Send A Transport
Textual Description: The transport manager received a transport document and entered to the system to create a new transport.
List of Actors: The transport manager
Pre-conditions: 1) The driver is free to make the transport on the given date 2) There is a supplier who is available to take the transport on the given date 3)The driver has the appropriate permissions to drive the truck 4) The truck is suitable for the given transport 5) All the drivers and details are exists in the system.
Post-conditions: 1) The transport was successfully created in the system.
Main success scenario: The transport manager enters the system and creates a new transport while checking the following: 1) Is the driver free and able to carry out the transport 2) Will the stoke keeper will be able to collect the shipment from the destination 3) Does the driver have appropriate permissions for the given truck 4) The truck is suitable to carry out the transport 5) The transport weight will be suitable the transport will created successfully.
Alternatives/Extensions: 1) The driver does not have appropriate permissions to drive the truck: In that case there will be an option to choose a suitable new driver 2) The weight of the truck has exceeded the limit: in this case we can change the truck / change destinations. 3) There is no store keeper available to pick up the shipment: a message will pop up to the screen and transport creation will canceled 4) There are no drivers available on the given date: A message will pop up to the screen and transport creation will canceled.



2.A

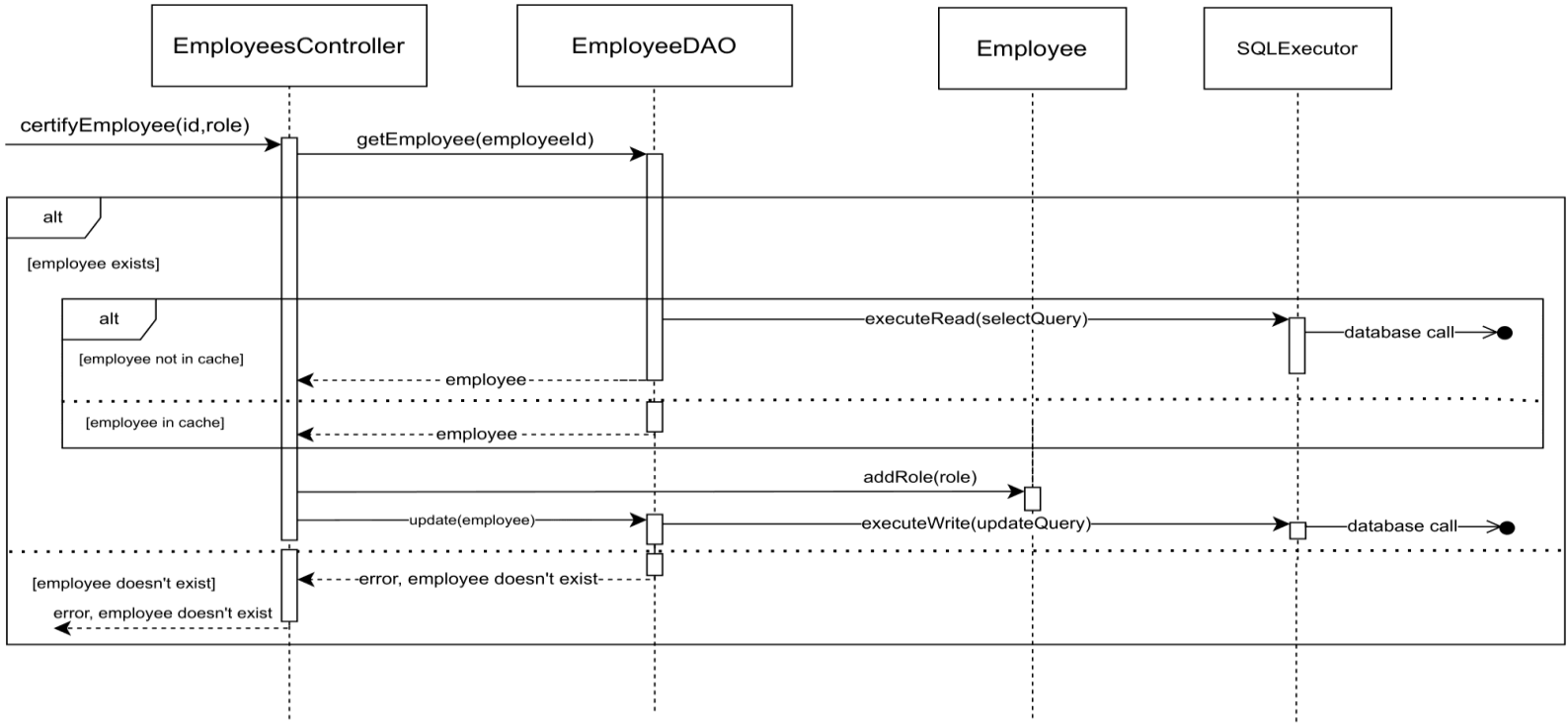
Scenario G

Contract 1: certifyEmployee (id,role)

References: UseCases: Assign Employees To Shifts

Preconditions: Employee exists.

Postconditions: Employee's set of certifications is updated to have the mentioned role.

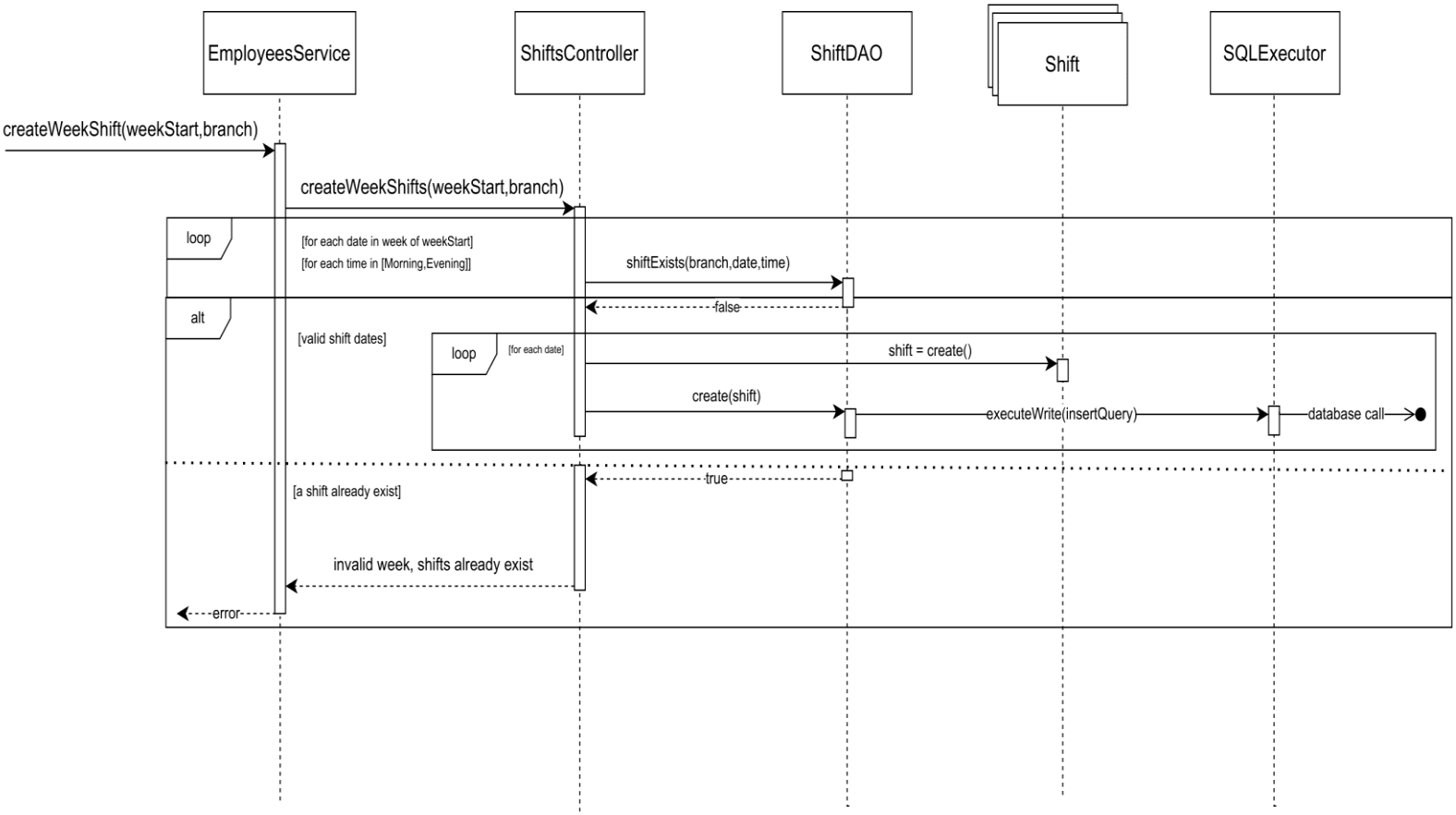


Contract 2: createWeekShifts(date, branch)

References: UseCases: Assign Employees To Shifts

Preconditions: branch exists, shifts are not created yet.

Postconditions: shift instances are created and initialized.

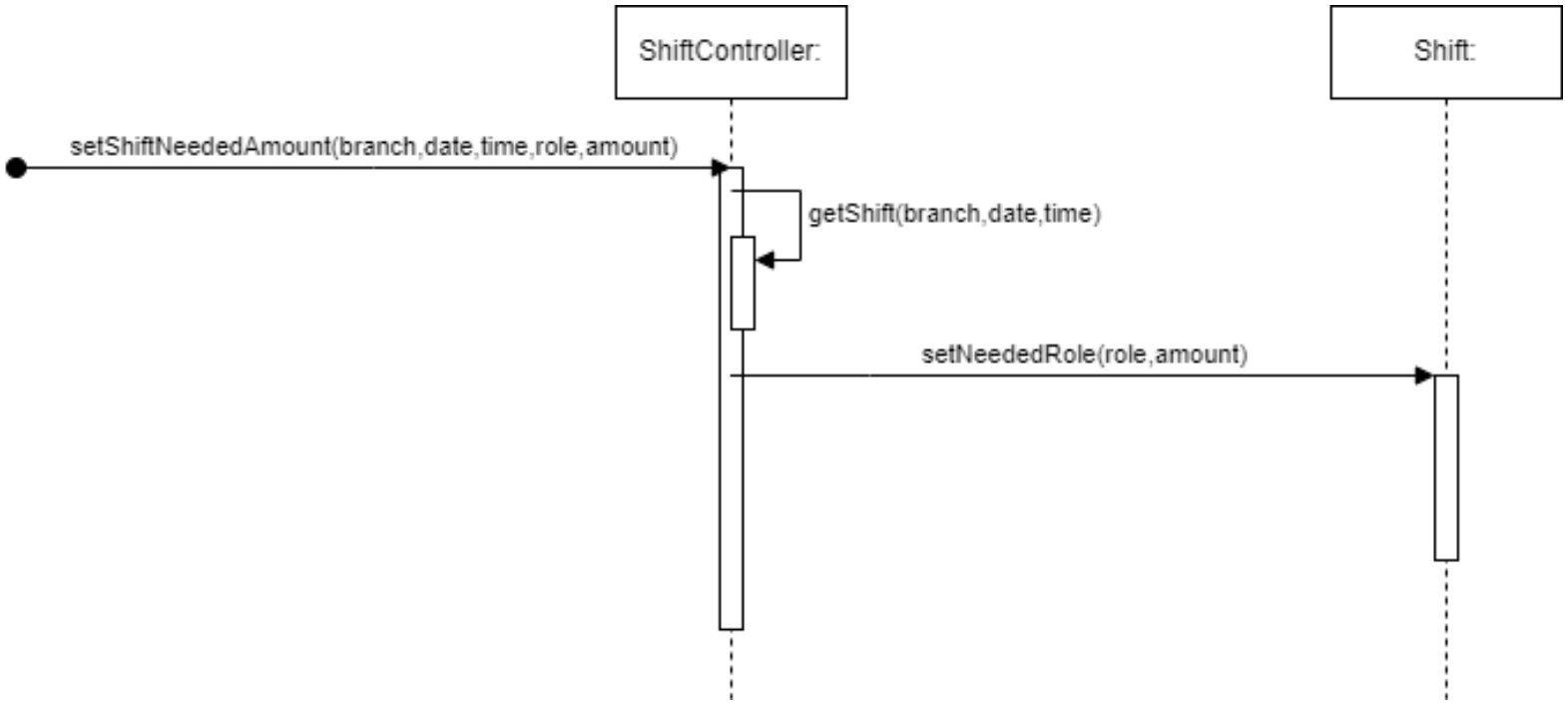


Contract 3: setShiftNeededAmount(branch,date,time,role,amount)

References: UseCases: Assign Employees To Shifts

Preconditions: Shift exists.

Postconditions: Shift's required roles are updated to have the specified role and the amount of workers needed for that role is updated as well.



Contract 4: requestShift (employee, date,time,branch,role)

References: UseCases: Assign Employees To Shifts

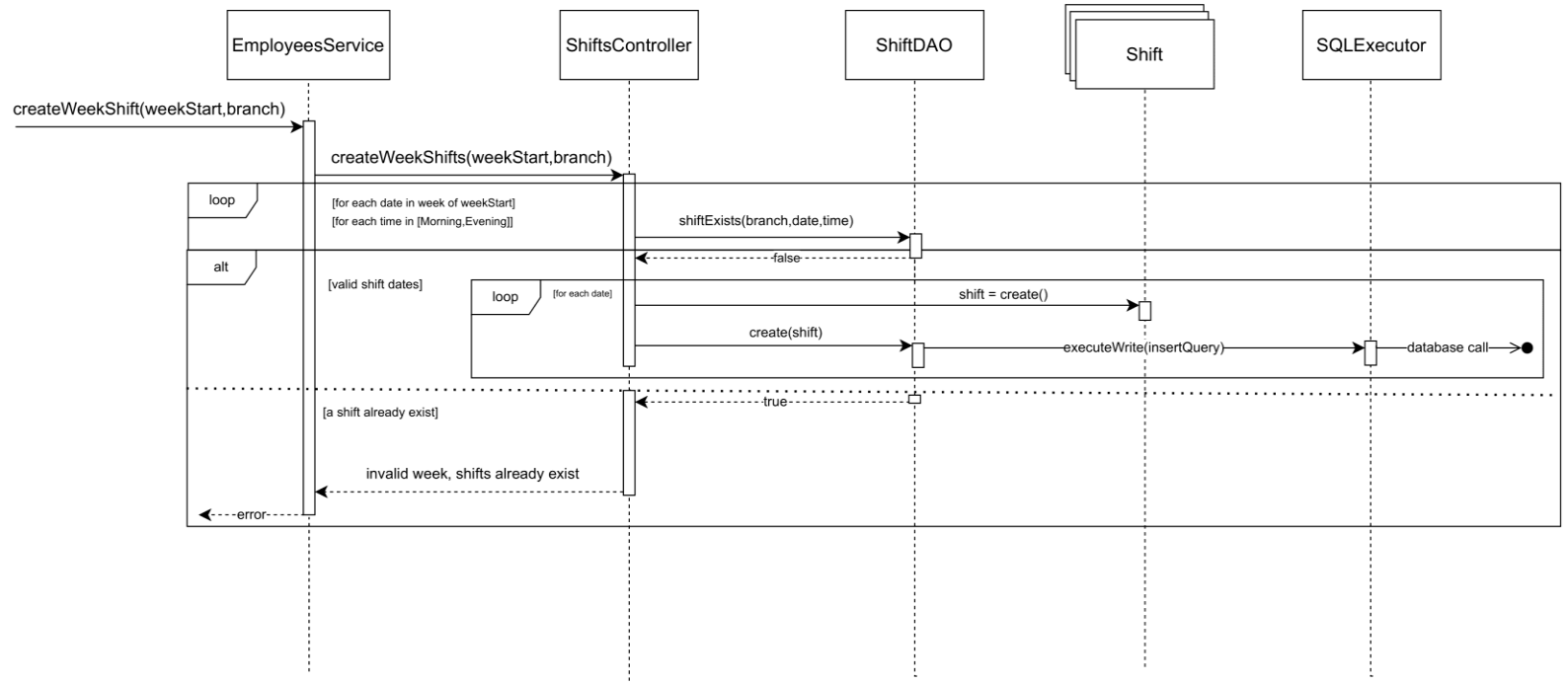
Preconditions:

1.Shift of the specified date, time and branch exists.

2.'role' is part of the shift's set of needed roles, employee is not registered to 6 or more shifts that week and not registered to a shift at all that date.

3.Employee exists and is certified to be that role.

Postconditions: Employee is associated with the mentioned shift, as a requesting employee.

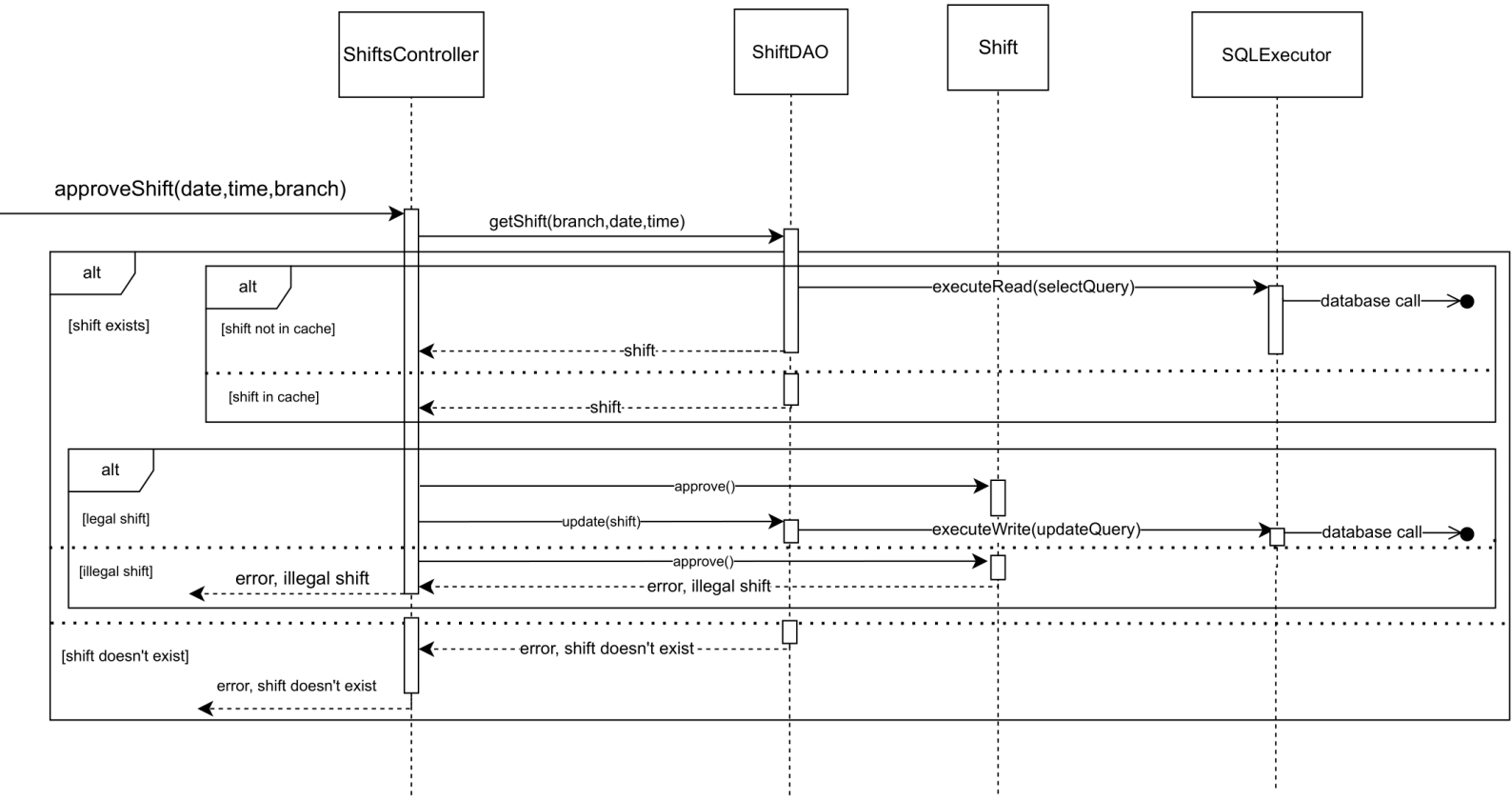


Contract 5: setEmployeesToShift (ids,date,time,branch,role)

References: UseCases: Assign Employees To Shifts

Preconditions: Employees are associated with the mentioned shift as a requesting employee, for the specified role.

Postconditions: Employee is associated with the shift as a registered employee for the specified role.

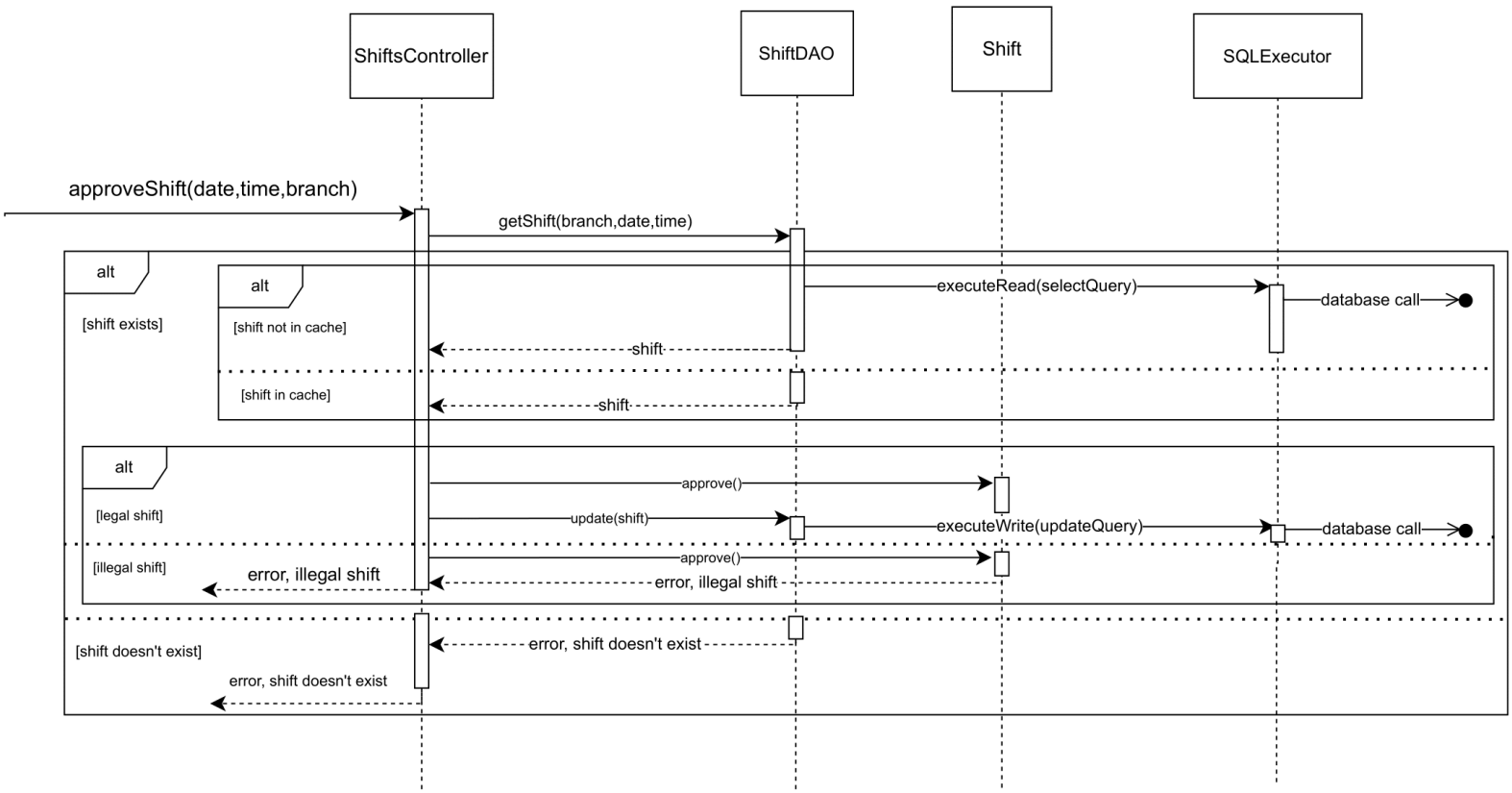


Contract 6: approveShift (date,time,branch)

References: UseCases: Assign Employees To Shifts

Preconditions: shift exists, shift is legal (all required roles exist).

Postconditions: shift's 'is approved' field is set to true.



Scenario H

Contract 1: addTransport(json)

References: UseCases: Create a transport

Preconditions: The json contains a serialized instance of a transport object with all the required data in it.

Postconditions: In the case of success the transport will be created successfully and added to the system and in the case of an error the system will return a message that contains all the errors that it encountered.

Collaboration1::Interaction1::addTransport SequenceDiagram1