

# UML Examples in Software Development

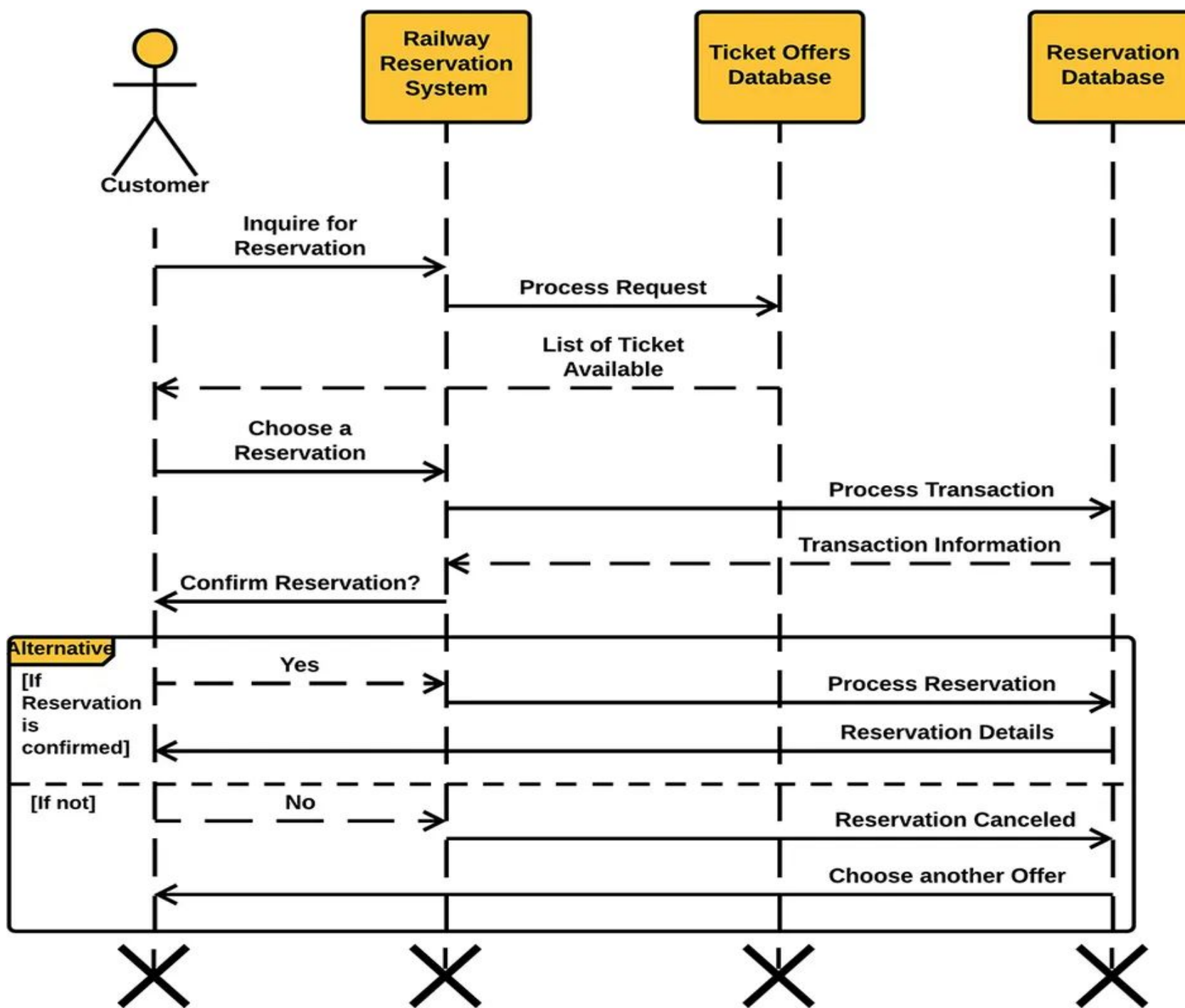
**CSC3350**

Dr. William Greg Johnson  
Department of Computer Science  
Georgia State University

# Scenario for Ticketing Railway Reservation System

Requirements (Functional, Nonfunctional) are used to build a sequence diagram.

1. *User connects to Railway Reservation System (RRS) with inquiry for tickets*
2. *RRS connects to ticket database with inquiry*
3. *Returns list of open reservations*
4. *User chooses a reservation*
5. *Send choice to reservation database*
6. *Reservation database sends back RRS*
7. *User confirms choice or declines choice*

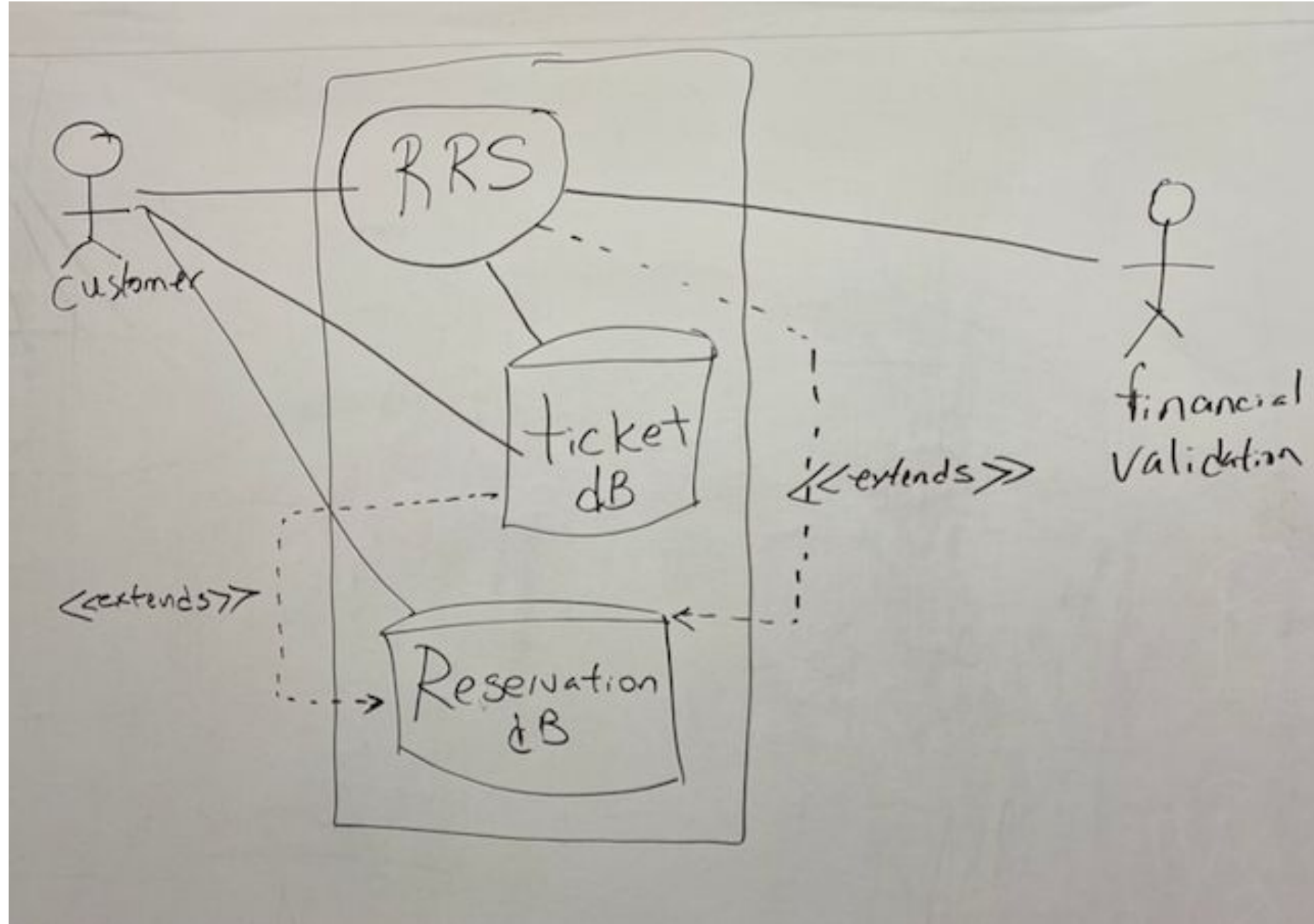




# Use case?

The '**financial validation**' shown as an external component/system. It is optional but shows an outside interaction/connection to reserving a ticket.

The '**<<extends>>**' is a way to indicate additional behavior that is too detailed or complex for this use case diagram. (Usually indicates a library, or web service as part of the connection between components –this would be an additional use case diagram to show its composition.)

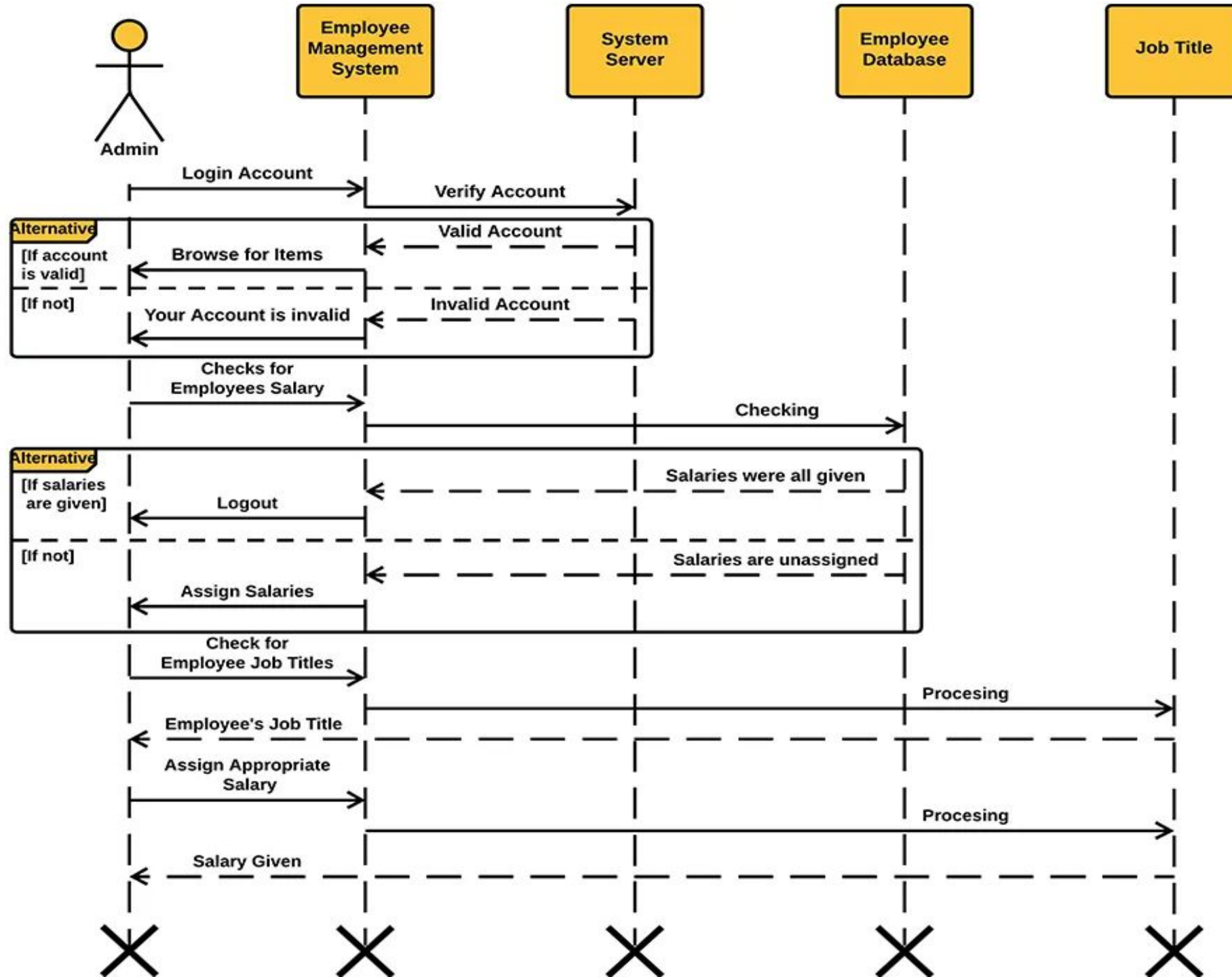


# Scenario for Setting Salaries for Employees

*Employee management system (EMS) to view/update salaries and associated job titles*

*The Admin uses: EMS, Account Server (AS), employee salary database (ESD), job title data (JT)*

1. *Admin sends login request to EMS, and EMS sends verify request to AS*
2. *AS returns valid or invalid login to EMS*
3. *EMS sends logout (invalid) or browse for employees (valid)*
4. *Admin (valid) sends request to EMS to check if all employees assigned a salary*
5. *EMS send request to ESD*
6. *ESD returns 'all employees have salary' or list of 'employees are without a salary'*
7. *EMS returns logout or assign salaries to Admin*
8. *Admin sends check for titles (assign salaries) to EMS*
9. *EMS sends 'get list' of titles to JT*
10. *JT returns titles to Admin*
11. *Admin sends message to assign salary appropriate for title to EMS*
12. *EMS sends 'process request' to JT*
13. *JT returns to Admin: completed*



Use case?

