



# University of Colombo School of Computing

## SCS1303 - Introduction to Software Engineering

### Sequence Diagram

#### Tutorial 10

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**Create detailed sequence diagrams for the given scenarios using draw.io software.**

#### 01. Online Banking – Fund Transfer

A user logs into an online banking system to transfer money. The user provides login credentials, the system validates them, and displays the account dashboard. The user selects “Fund Transfer” and enters beneficiary details and the transfer amount. The system verifies the account balance, processes the transaction, updates the database, and sends a confirmation notification. Draw a sequence diagram to represent this interaction.

#### 02. Airline Reservation System – Ticket Booking

A customer wants to book a flight ticket using an airline reservation system. The customer logs in, searches for available flights, selects one, and proceeds to booking. The system checks seat availability, calculates the fare, and processes payment. If payment is successful, the system confirms the booking and issues an e-ticket. Create a sequence diagram to illustrate this process.

#### 03. Library Management System – Book Borrowing

A student borrows a book from a library management system. The student logs in, searches for a book, and places a borrow request. The system checks book availability and verifies borrowing limits. If the book is available, the system updates the inventory and issues a due date. If not, the system places the student on a waitlist. Draw a sequence diagram to show this interaction.

#### 04. Ride-Hailing App – Booking a Ride

A passenger books a ride using a ride-hailing app. The passenger logs in, requests a ride, and the system finds nearby drivers. The system sends ride requests to drivers, and one driver accepts. The system confirms the booking, shares driver details with the passenger, and tracks the ride until completion. Draw a sequence diagram to represent this interaction.

#### 05. Online Learning Platform – Course Enrollment

A learner enrolls in a course on an online learning platform. The learner logs in, browses available courses, and selects one. The system checks course prerequisites and payment status. If all conditions are met, the learner is enrolled, and the system provides access to learning materials. If conditions are not met, the system prompts the learner accordingly. Draw a sequence diagram for this process.

**Submission Requirements:**

- Submit a single PDF document containing all five sequence diagrams. (e.g., [Sequence\\_2300001.pdf](#))
- Ensure each diagram is on a separate page and labeled with the corresponding question number.
- Include your name and student ID on the first page of the document.
- Diagrams must be created using draw.io.
- Submit your assignment via the designated submission portal by the deadline.