Process 1: Booking a vehicle

Sequence Diagram

```
        User        Client App        Server

         │  Sign In/Login  │              │
         │────────────────▶│              │
         │◀ ─ ─ ─ ─ ─ ─ ─ ─│              │
         │  Find a branch  │              │
         │────────────────▶│              │
         │◀ ─ ─ ─ ─ ─ ─ ─ ─│              │
         │                 │ Search for Branch
         │                 │─────────────▶│
         │                 │◀ ─ ─ ─ ─ ─ ─ │
         │  Search for Cars│              │
         │────────────────▶│              │
         │◀ ─ ─ ─ ─ ─ ─ ─ ─│              │
         │                 │ Get Available Cars
         │                 │─────────────▶│
         │                 │◀ ─ ─ ─ ─ ─ ─ │
         │  Select Vehicle │              │
         │────────────────▶│              │
         │◀ ─ ─ ─ ─ ─ ─ ─ ─│              │
         │ View Car Details│              │
         │────────────────▶│              │
         │◀ ─ ─ ─ ─ ─ ─ ─ ─│              │
         │ Choose Rental Options          │
         │────────────────▶│              │
         │◀ ─ ─ ─ ─ ─ ─ ─ ─│              │
         │                 │ Check Availability and Price
         │                 │─────────────▶│
         │                 │◀ ─ ─ ─ ─ ─ ─ │
         │ Confirm Booking │              │
         │────────────────▶│              │
         │◀ ─ ─ ─ ─ ─ ─ ─ ─│              │
         │ Provide Payment Information     │
         │────────────────▶│              │
         │◀ ─ ─ ─ ─ ─ ─ ─ ─│              │
         │                 │ Process Booking
         │                 │─────────────▶│
         │                 │◀ ─ ─ ─ ─ ─ ─ │
         │ Receive Confirmation           │
         │────────────────▶│              │
         │◀ ─ ─ ─ ─ ─ ─ ─ ─│              │
```
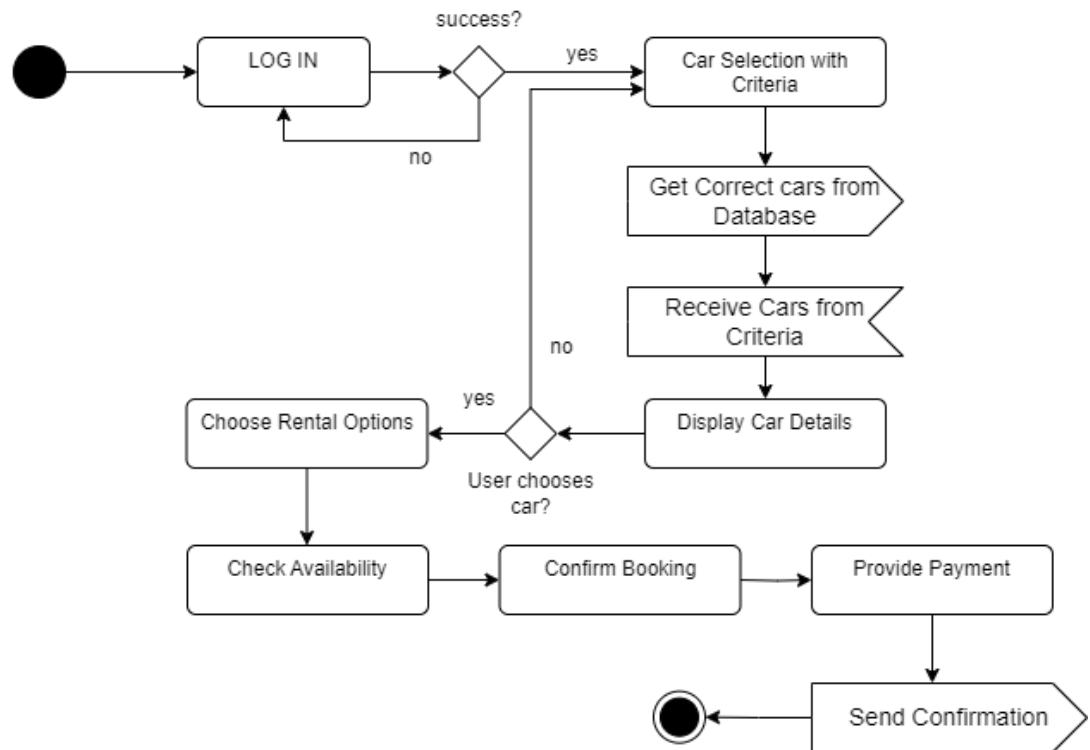
Activity Diagram

Figure 1: Process 1 UML activity Graph

Process 2: Check in a customer to pick up a car

Sequence Diagram

User	Client App / Rental Location	Database	Bank

Present Information

Inspect car for damages

Report damages

Loop — If damages are reported

Log damages

Sign rental agreement

Update status

Create link to rental details

Request deposit (500 CAD)

Confirm deposit

Drive away with the car
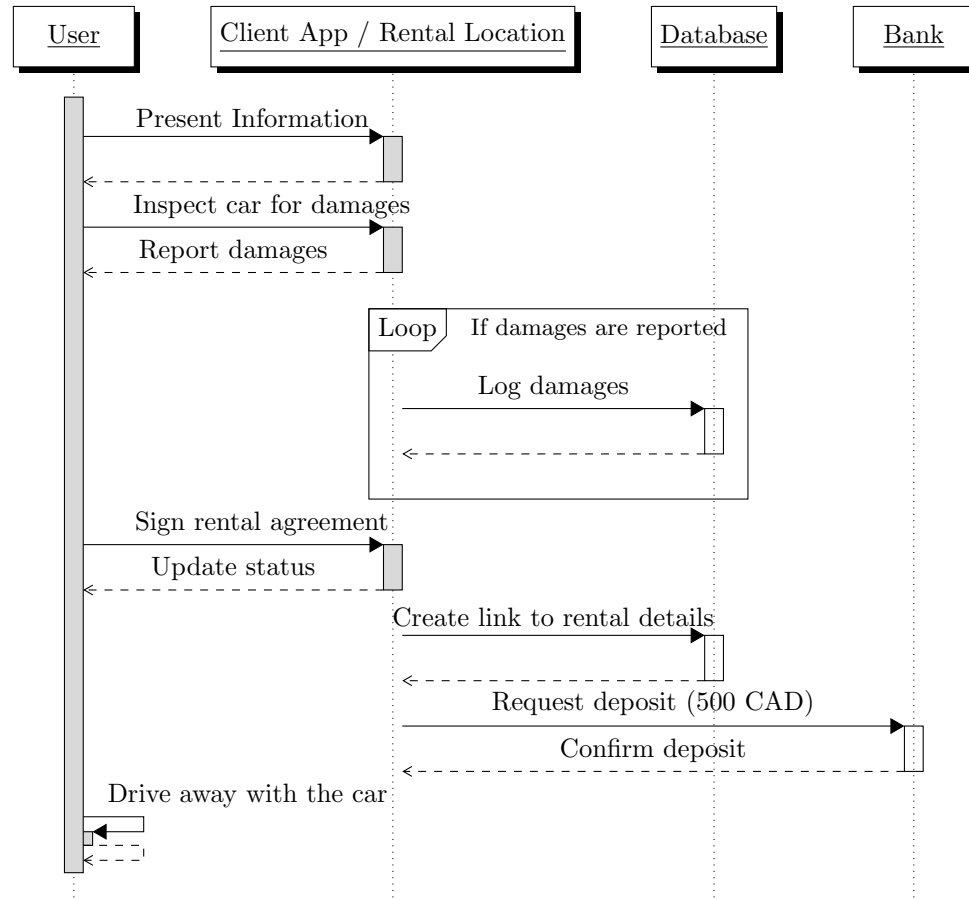
Activity Diagram

Process 2: Checking in a
vehicle
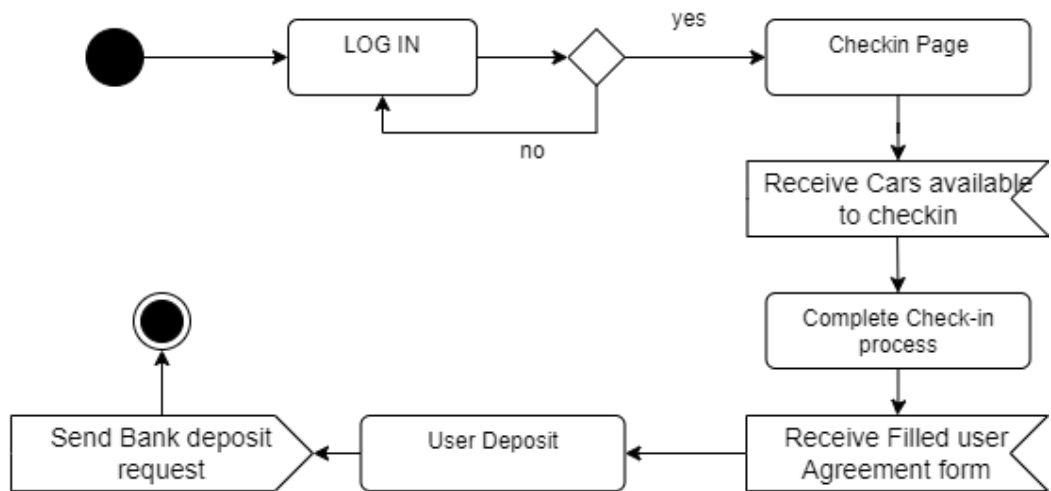
Figure 2: Process 2 UML activity Graph
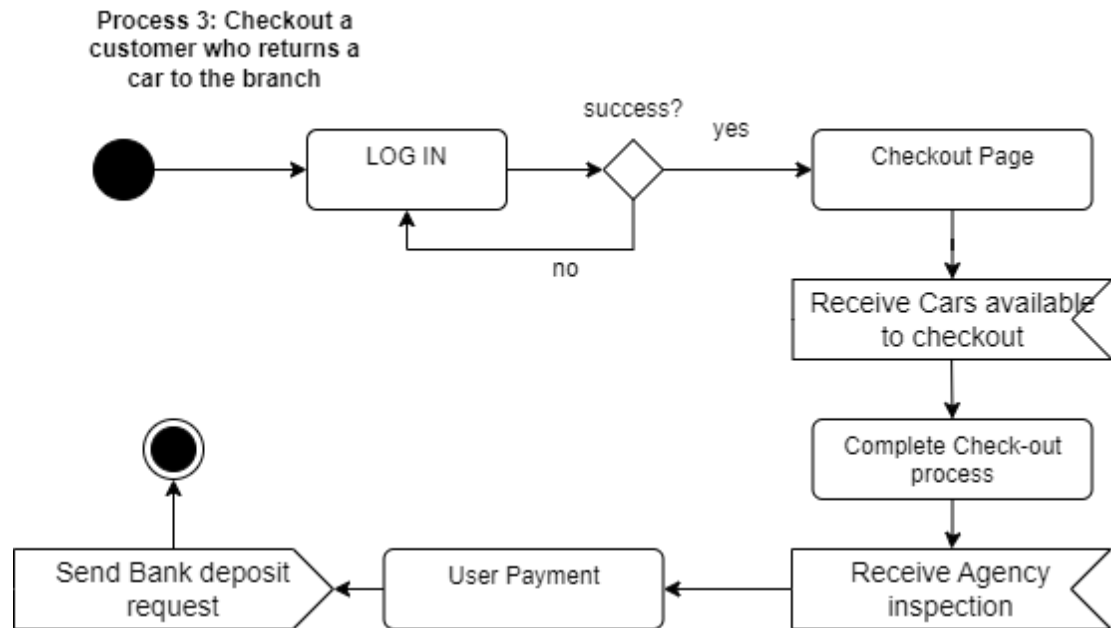
Process 3: Check in a customer to pick up a car

Sequence Diagram
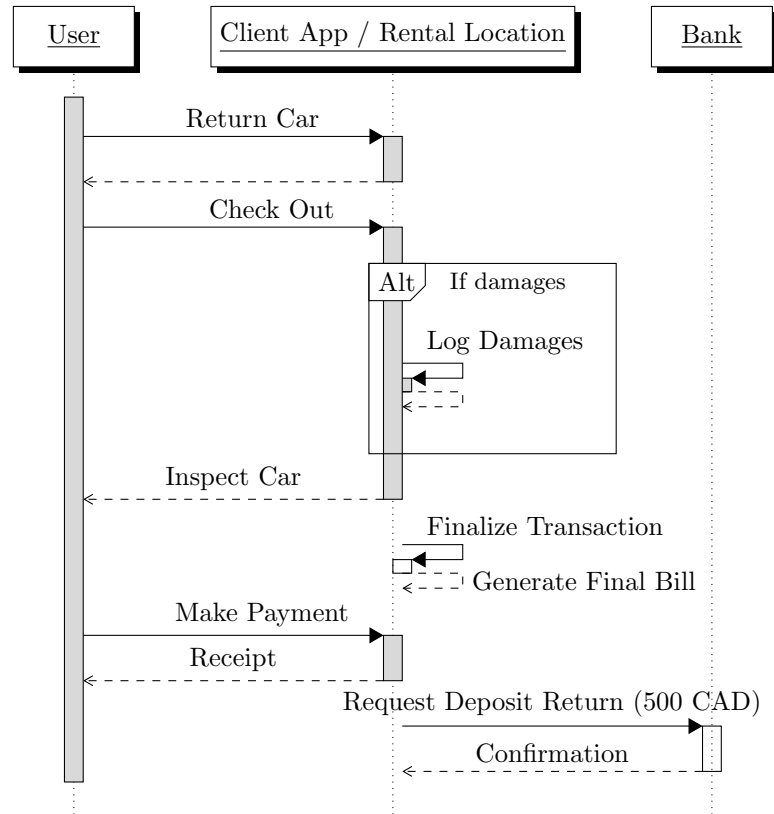
Activity Diagram

Figure 3: Process 3 UML activity Graph