

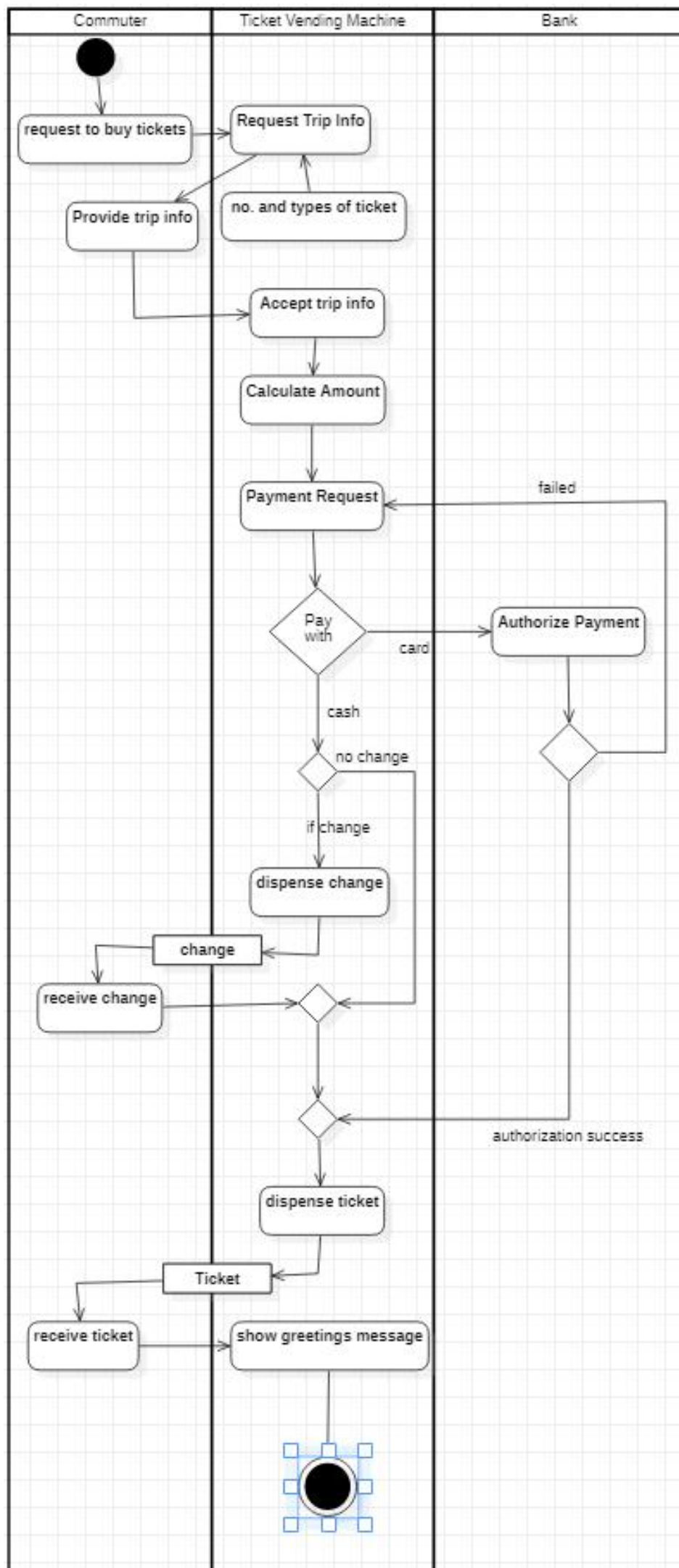
Experiment - 5

Q1. Ticket vending Machine.

Sol. This UML activity diag is for booking ticket. A swimlane diagram is used to clearly define the activities of diff. actors.

There are three actors in the system:

- ① **Commuter:** Can request to buy ticket, provides trip information, makes payment by selecting suitable payment option, finally on successful booking receives ticket and change if any.
- ② **Ticket vending machine:** It books the ticket if available, calculates payment to be done by user, processes payment and dispenses ticket and change if any.
- ③ **Bank:** If user selects to pay using card then Bank authenticates the payment method and on successful authentication payment is completed.



Q2 Hospital Management System.

a) Patient - System Management.

- Patient - Register (if not registered) and then ask for appointment.
- System - Responsible for patient registrations, appointment monitoring, bed allotment, and handling queries of patients.
- Doctor - Diagnose patient and prescribe.
- Receptionist - provide info to patient about appointment and report.
- Lab Staff - Test patient and generate the test report.

b) User-admin (pay role) system.

- User: A user may be a patient, doctor or any staff.
- A patient can ask query.
 - A doctor or a staff can check and treat patient, and draw salary.

- System: Monitors appointments, add or remove doctors and staff.
- Admin: Responsible for calculating and giving salary and maintenance of all the resources and requirements of hospital like wards, equipments blood, patient history, etc.

