Objective

- A mobile-web app to provide a feature rich carpooling platform aimed to completely eliminate monetary transactions involved as part of a social initiative to tackle the traffic congestion and pollution menace in most metropolitan cities.

Scope

- SHAREGO is a GPS-based web application which envisions to enable any individual to act in a dual role of pax as well as driver. When user acts as a driver he/she accumulates distance-points which can then be redeemed for trips wherein he acts as a passenger.
- As part of a social responsibility intiative it is designed to be free to use, secure and works with realtime dynamic information.
- Furthermore, app needs Internet and GPS connection to fetch data. All system information is maintained in a Database located on a remote-web server.

Why ?

- Traffic congestion on the roads

- Peak hour congestion

- Fuel Depletion

- Lack of Parking Areas

- Cost Benefits

- Pollution

- Driving-related stress

Functional Requirements

- Maintain user-profile

- User should be able to work as a pax or driver.

- Multi-pax support should be accommodated

- Create Ride

- Search for a driver as well as pax

- Optimized route mapping

- Distance-Point calculation

- Rate Driver and Pax

Non Functional Requirements

- Performance - Real Time interaction

- Scalability - Increasable User Load

- Extensibility - Platform Independent

- Availability - 365x24x7*

- Privacy & Security

- Maintainibility - Easy Addons

- Supportability - Configuration Management

*General Working Assumptions

Existing Systems

BlaBla Carpooling App

➢ Mandatory Social Network

➢ Community Based System

➢ Cost Sharing

➢ Viable only for long distance

➢ Safety Concerns

Zebigo

➢ Negotiation Problems

➢ Authentication Flexibility

➢ No Navigational Facility

➢ No Women Safety

What do we propose?

SHAREGO

- Real Time Navigation
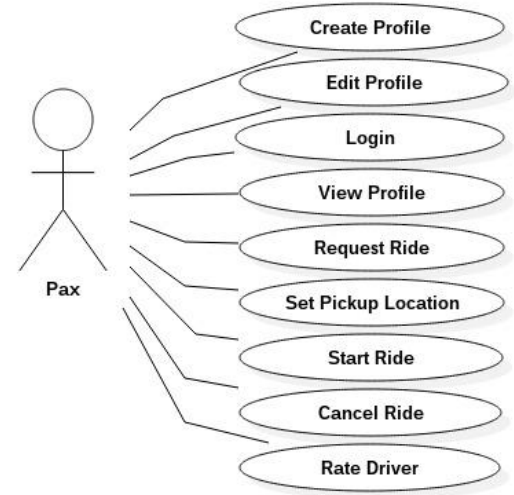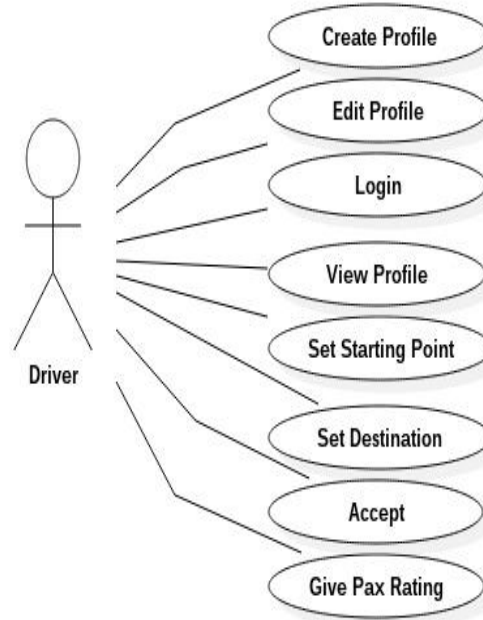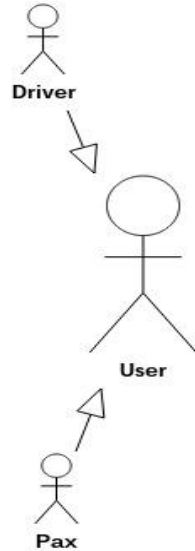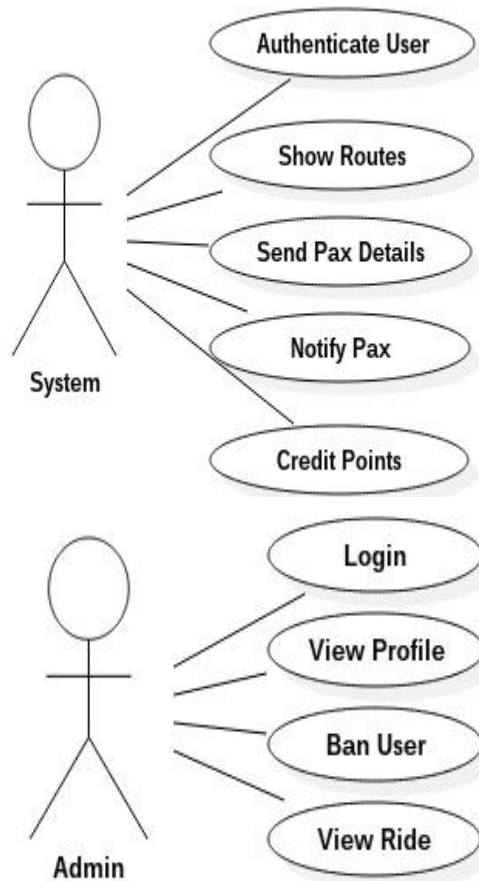- Novel Distance as currency principle
- Secure UIDAI Authentication
- Eliminates monetary transactions
- Women Safety
- Single/Group Support
- Promotes Alternative Mode of Transportation
- Pollution Friendly Idea
- Distance independent Platform
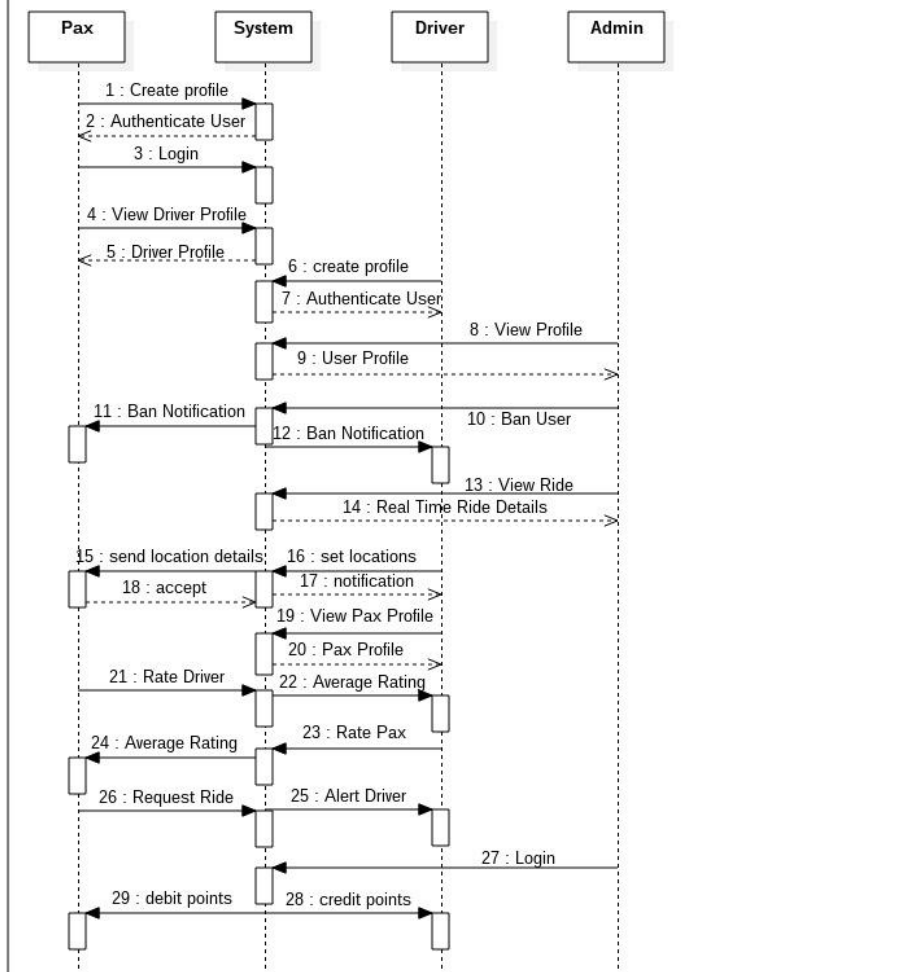- Promotes Social Responsibility
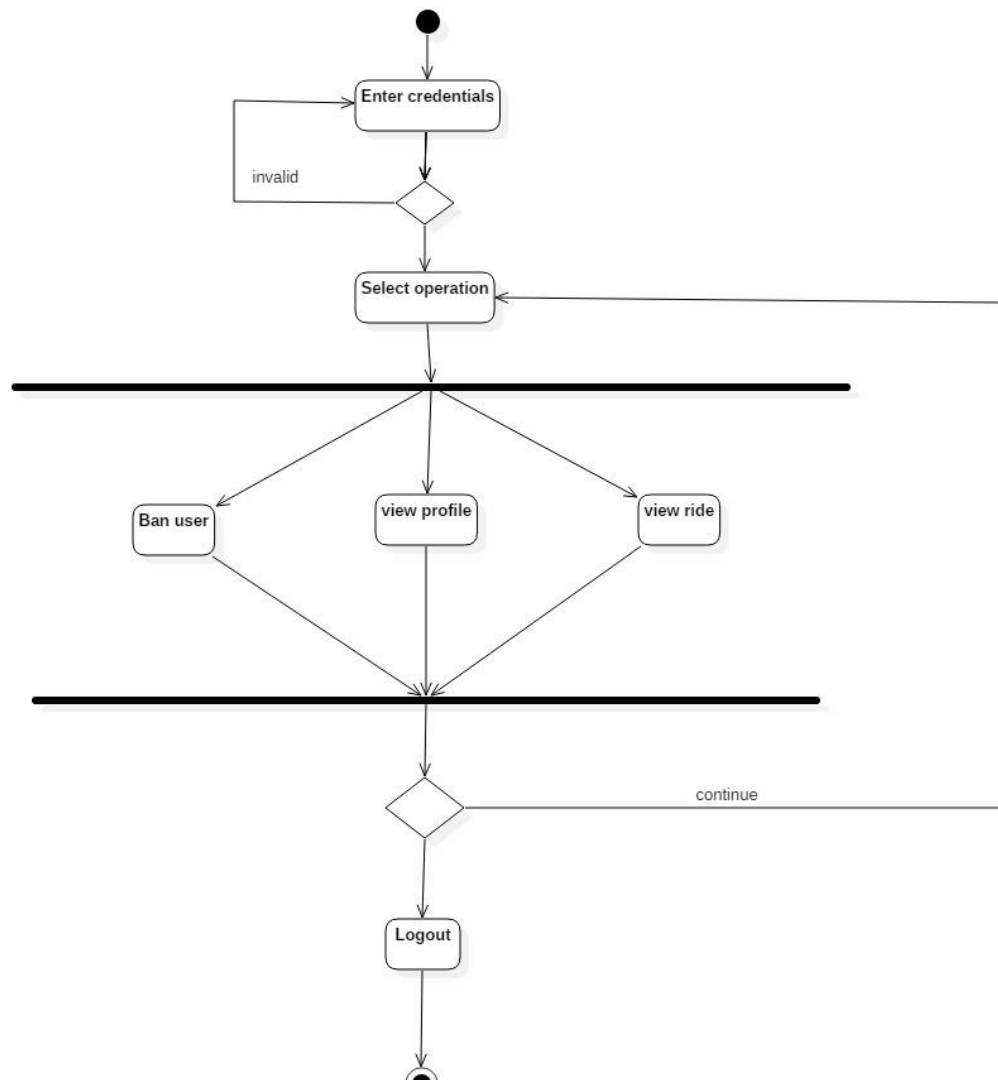- Automatic Distance-Point Accumulation

DESIGN

USE CASE DIAGRAM

SEQUENCE DIAGRAM

ACTIVITY DIAGRAM

```
                              ●

                    ┌─────────────────┐
              ┌────▶│ Enter credentials│
              │     └─────────────────┘
              │              │
      invalid │              ▼
              └──────────◇

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          ▼              ▼              ▼                    │
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     │ Ban user│   │ view profile│ │ view ride│              │
     └─────────┘   └─────────────┘ └──────────┘              │
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                        │ Logout  │
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```

login

Enter credentials   create profile

invalid

select operation

pax   driver

edit profile   starting point   find driver   exit

destination

select driver

view profile

decline   accept

start   cancel

finish

rating

edit profile   starting point   exit

destination

check

view profile
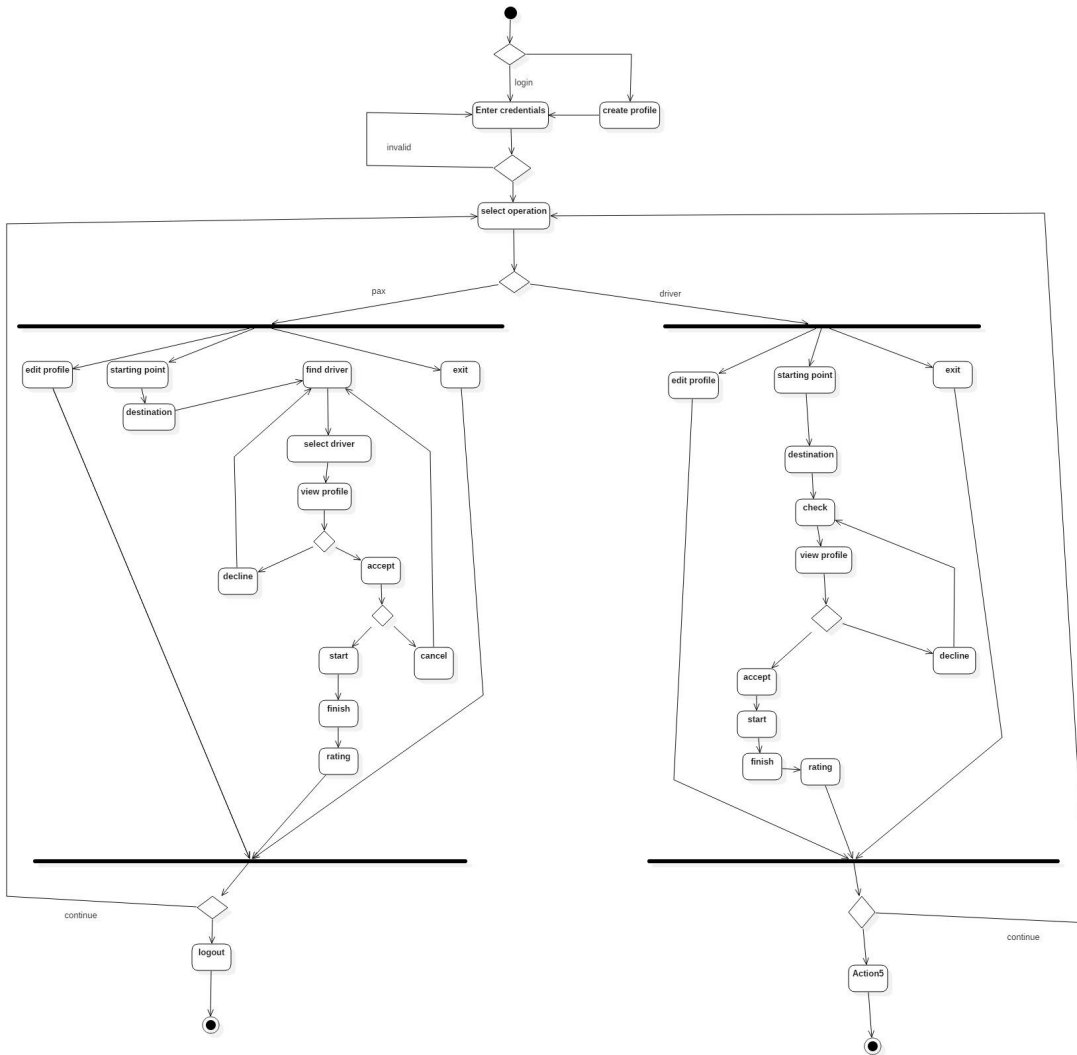
accept   decline

start

finish   rating

continue

logout

continue

Action5

TECHNOLOGY USED

MERN STACK

MongoDB

- OpenSource NoSQL Database
- Store data in JSON format
- Highly scalable
- Faster Access compared to SQL DB

ReactJS

- FrontEnd Js Framework
- UI Development

ExpressJS

- WebApp Framework
- Backend

NodeJS

- Js RunTime environment
- Event-driven Architecture