# Project : Online Bus Ticket Reservation System

Objective : This project aims at booking bus tickets online by customers who have an account in the system.

Actors:

* Customer
* Admin

UseCases:

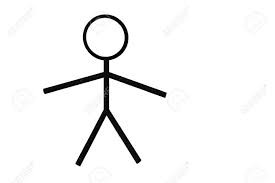
Customer:

* Registers with following details
  + Firstname
  + LastName
  + Email
  + gender
* Logins with username and password.
* Books Bus Tickets.

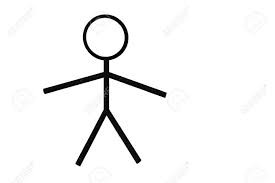
Admin:

* Add Bus details
* View All Bookings
* View Bookings for a Bus

UCD (Admin)



UCD (Customer)



Project Implementation

* Architecture :
  + MicroServices Architecture.
* Database
  + MongoDB
* Business Layer implementation
  + Spring Boot
* Patterns used
  + Netflix Zuul for API Gateway
  + Feign for Internal Microservice Invocation
  + Ribbon for Load Balancing
  + Hystrix for Circuit Breaker Pattern
  + Eureka for Naming and Discovery
  + Spring Cloud for Configuration Management
* UI Integration and API consumers
  + Angular

Micro Services Flow.

Sequence (Start in the same sequence)

|  |  |  |  |
| --- | --- | --- | --- |
| Sl no | Service | Port | Description |
| 1 | Service Cloud | 8888 | Manages the DB configuration with the help of GIT Repo |
| 2 | EurekaNamingServerDemo | 8761 | Naming and Discovery of Services |
| 3 | ZuulDemoProject | 8765 | API Gateway |
| 4 | BusinessService | 8085 | User Email Retrieval |
| 5 | LoginService | 8081 | Login |
| 6 | BookingService | 8083 | Customer Books tickets |
| 7 | OAuth2 Service |  | To be Implemented |

Feign and Ribbon

Zuul Service

API Gateway

Login service

Business

(Gets Customer detail based on Email)

Spring Cloud Service for DB configuration

Mongo DB

Booking Service

Feign and Ribbon

Eureka Naming /Discovery Service