**VRide – Car Pooling System**

**Project Overview**

The purpose of V-carpooling is the sharing of car journey so that more than one person/employee can travel in a car. The greatest advantage of carpooling is the feeling of relaxation while reaching to office. You don’t need to struggle all the way driving to office and feel relaxed - No Parking / Traffic tensions. The feeling of relaxation rejuvenates you to start your work natural fresh. And also Carpooling reduces the costs involved in car travel by sharing journey expenses between the employees travelling. Carpooling is also seen as a more environmentally friendly and sustainable way to travel as sharing journeys reduces carbon emissions, traffic on the roads, and the need for parking spaces. So it builds virtual relationships in our organization among the people commuting.

Our top priority in building this application is the location tracking with high performance and user experience. In addition to this, we need to add a good recommendation engine to both web and mobile apps to improve our customer base with an enriched customer experience.

In this V-carpooling any virtusan who own a car can offer to share his/her car. And any other virtusan who wants to use this service can search for journey through this portal. After finding a match they will contact and carry out their journey as planned

**Application Overview:**

In this project we provide an automated system replacing the manual work which includes contacting each other who wants to provide the car and who wants to use that car. Without registration users can explore car pool data. If they want to use the services they have to register. In the create Pool they have to select pool type Rider/provider, start time, return time, origin, destination. If they found any matches as per their requirements they can contact the user using this site a mail will be sent to their Email Ids.

Application to include the below modules as a basic ones and additionally, inclusion of value adds will be appreciated.

## Proposed Process Flow:

**Employee:**

**Register:**

User has to register into Car pooling system for further process. User can able to edit/delete his profile details.

**Login:**

User has to first login to the Car pooling system using his/her

Employee id and Password.

**Providing Details:**

User has to enter his/her journey details like whether he is a provider/rider origin, destination and starting time to create a carpool. User can able to edit/delete/active and deactivate his pool details.

**Search:**

Without registration also user can search for the availability of cars to

His/ Her destination. After finding matches he/she has to register in the

Carpool system to contact the person.

1. Payments with Payment Gateway
2. Customer Management
3. Customer onboarding with KYC (mail id, mobile number etc)
4. Customer transactions tracking
5. Status Tracking
6. Research & Recommendations
7. Users – Customer & Rider Management system
8. Forum that includes Customer reviews
9. Search Stocks, Stock Ratings and Charts to represent their past records
10. Reporting
11. Data Management for the above modules.

**Value Adds Expected**

1. Location based notifications
2. Scheduling module to schedule later/ for next day
3. Notification triggers to agent and customers

**Below modules are required for back office management.**

* Admin module
* SSO Module
* Reporting modules on the statistics of the user access, stock - customer analysis reports etc

**Technology Stack:**

|  |  |
| --- | --- |
| Presentation Layer | Angular or ReactJS  BootStrap  CSS3/SASS |
| Server Side Implementation | Spring Boot  Spring Rest Controller  Spring Security  Spring AOP  Spring Hibernate or JPA  Maven |
| Database | MYSQL |

**NFR Requirements:-**

|  |  |
| --- | --- |
| **Security** | Admin Module – UserName/Password Based Credentials (NTLM)  eBrokerage Platform – OAUTH2  Sensitive data has to be categorized and stored in a secure manner  Secure connection for transmission of any data |
| **User Base** | |  |  |  | | --- | --- | --- | | Front Office | | | | Total users | Concurrent Users | Y0Y Growth % | | 5000 | 300 | 15% |  |  |  |  | | --- | --- | --- | | Admin Apps | | | | Total users | Concurrent Users | Y0Y Growth % | | 100 | 50 | 20% | |
| **Performance** | Peak Load Performance (during Festival days, National holidays etc)  eTrading Platform -< 3 Sec  Admin application < 2 Sec  Non Peak Load Performance  eTrading Platform < 2 Sec  Admin Application < 2 Sec |
| **Availability** | eTrading Platform – 100% Availability  Admin Application – 99% Availability |
| **Standard Features** | * Scalability * Maintainability * Usability * Availability * FailOver |
| **Logging & Auditing** | System should support logging(app/web/db) & auditing at all levels |
| **Monitoring** | Should be able get monitored via as-is enterprise monitoring tools |
| **Cloud** | The Solution should be made Cloud ready, and should have minimum impact when move away to Cloud in infrastructure |
| **Browser Compatible** | IE 8+  Mozilla FireFox Latest – 15  Google Chrome Latest – 20 |
| **Video Streaming** | Should get integration with centralized Video Server for streaming media contents to the end user |