Transportation Deal Portal

1. Problem Definition

Most of the transports face challenge with one side fare problem (If a truck/trolley booked from Indore to Mumbai for some goods delivery then he gets the fare for one side only and empty return trip will be a big loss for them). Either they charge the amount for return trip from customers or they themselves bear the charges. In this era of very high fuel prices an empty trip is really a big problem.

This portal is planned to provide transporters a platform to address empty return trip problem and will also provide good transportation deals to customers.

This portal will allow registered transporter to post a deal for one side fare (Suppose if a transporter is sending his truck with some luggage from Indore to Mumbai on 25th Sep 2019 and the same truck is supposed to return back to Indore from Mumbai on 29th Sep 2019). The deals posted by this transporters will be visible to all the registered users when they will open their account after login as well as the same deal should be emailed to all registered users immediately.

There will be three types of roles for users of this application

- Admin (Managing The Portal)
- Transporters
- Customers

2. Role wise functional requirements

2.1 Admin

1. Will view all transporters new account request and after verification of the documents like GST-Reg., PAN etc. (will be uploaded by transporter while registration process). Admin may accept/decline the request. Once the admin has approved the request then only the account will be activated and transporter will be able to login and access his account.
2. Will review the documents of the vehicles registered by transporters (fitness certificate, registration card, insurance etc.) and after that he may allow/decline that vehicle. (only approved vehicles can be used for posting a deal).
3. Can view all the deals posted by various transporters (using various filters) and any time delist the deal for a valid reason.
4. Will review ratings for all the transporter (may apply many filter to view) and may any time deactivate account of any transporter for large no of low rating points)

2.2 Transporter

1. Will register his firm on the portal to use its services.
2. Will update his profile details.
3. Will register his vehicles on the portal (only registered vehicles can be used in future deal post). (Must upload the vehicle documents at the time of registration)
4. Will change the vehicle details for registered vehicles once a new insurance or fitness certificate obtained.
5. Will un-register a vehicle (for any reason may be vehicle sold out by firm or fitness certificate is not obtained by the authorities)
6. Will post a deal (for registered vehicles only)
7. Will update the deal details (date of return trip or price quotes etc)
8. Will view the queries raised by customers and respond them.

2.3 Customers

1. Will register themselves on the portal (only registered members are allowed to use the portal)
2. Will update the profile details.
3. Will view the various deals posted by transporters using various filters (date wise, city wise etc)
4. Will query a transporter for any clarification required.
5. Will see the response given by transporter.

3. Instructions to be followed for developing application

1. Apply best known software engineering practices (Technology / Process) while developing this application.
2. Design the database structures with proper fields and appropriate mapping (one-to-one, one-to-many etc.) where ever required.
3. Keep navigation simple and user friendly.
4. All the input forms (web page) must have proper validations.
5. Develop the application using MVC Architecture.
6. Must include test automation through Nunit / JUnit.
7. Use the best practices like proper Dependency Injections, appropriate service classes, proper DAO layer and appropriate views.
8. Build (application packaging) using Maven or any other relevant tool
9. Upload the complete application on your git-repository.
10. Final demo / PPT (Max 15 Min) should include -
    a. DB Structure (ER Diagram)
    b. High Level Architecture / Flow Diagram
    c. Design / Architectural consideration
    d. Any other relevant highlights