An Alternative in Logistics: Crowdsourced Peer to Peer Delivery Platform

Batch: MP20CS07

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Abstract

Connecting people who want to get or ship something with travelers and commuters, (almost) anything from (or to) anywhere across any distance (international, domestic or local), the platform shall offer a full-fledged online platform. Crowdsourced shipping – where travelers bring items to people along their route – has shaken up the delivery market. Major companies such as Walmart and DHL have explored the possibilities of P2P delivery, and a large number of specific shipping startups have sprung up in recent years. The platform aims on forming a trusted social network of travelers and senders. Traveling members post their trips and willingness to carry things and the platform connects them to senders.

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- System Analysis
- System Design
- Implementation
- Testing Techniques
- Observations & Results
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Introduction

- A platform where travelers add their travel details on the website so that local people can contact them to request products. This sharing economy service allows travelers to generate some extra income by carrying things for other people while they travel

- For instance, if I’m traveling from Paris to Istanbul, there’s someone looking for shipping services between those cities. If I agree to take the job, I just take the item, pack it with my stuff, and then deliver it when I arrive

- This platform has facets like chat system, rating system by and for users, inception of reference number for parcel for reliability.

Existing System

The first ever courier company was founded in 1957 in Tokyo and the same dated legacy system has been followed by every other courier company ever, till date.

Limitations:

- High rates for international shipments
- Duty taxes and customs up to 70% of the item price
- *Slower* deliveries
- Unavailability of order to be shipped to a specific region by the seller

Proposed System

A different platform for peer to peer delivery where the system will have targeted focusing on people traveling from states to states, cities to cities and even streets to streets. This will serve as an evolution to the current legacy shipping and courier companies, although not a replacement just yet.

Advantages:

- No duties, customs and other taxes
- *Faster* deliveries
- Rating system for better proficiency
- Parcel reference number for testimony

Prototype Stack

Front-end technologies

- HTML5
- JavaScript
- CSS

Back-end technologies

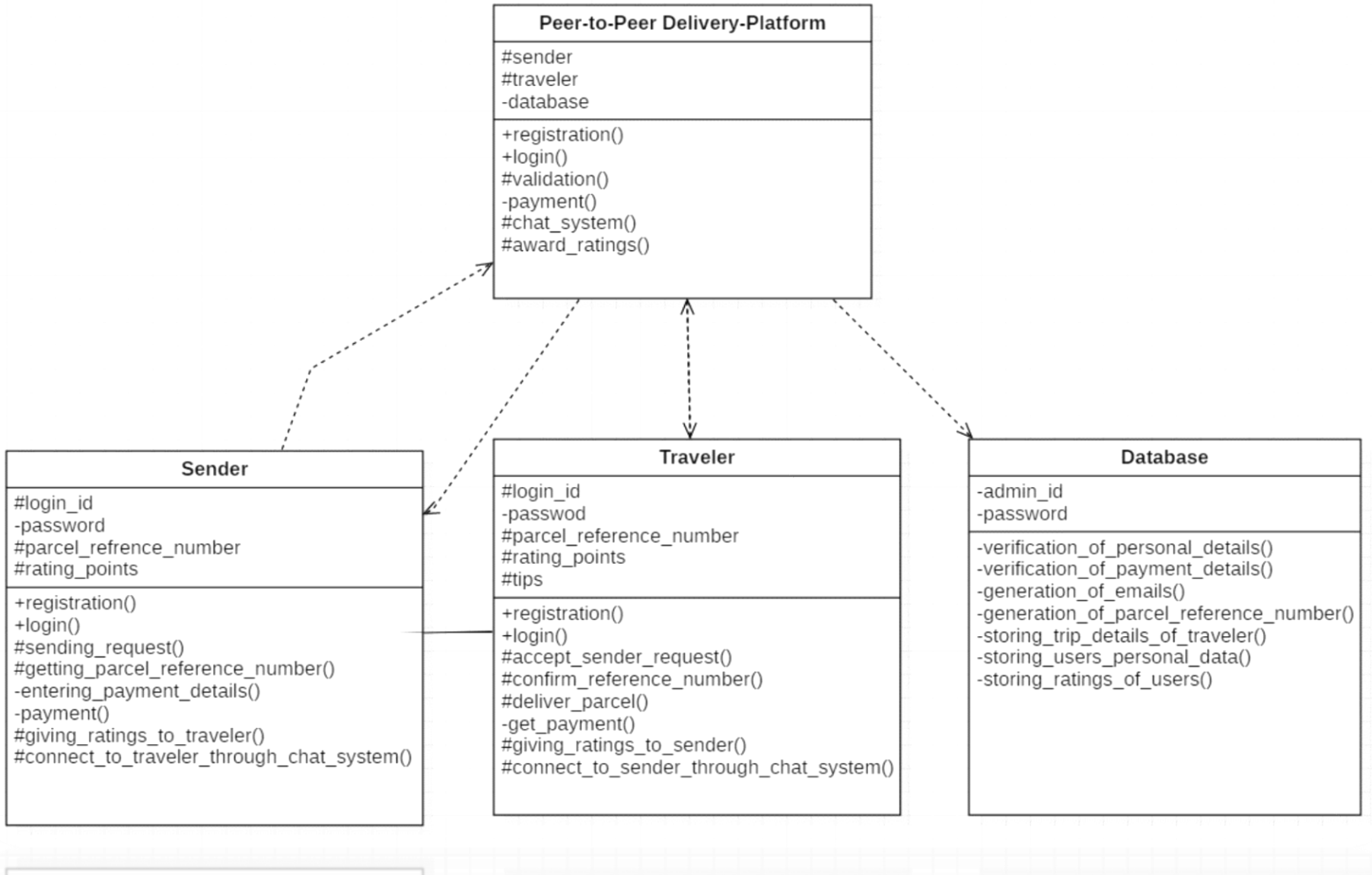
- PHP
- MySQL

System Design

- Entity-Relationship (E-R) diagram
- UML Diagrams
  - Class diagram
  - Use-case diagrams
  - Activity diagram
  - Sequence diagram
  - State chart diagram

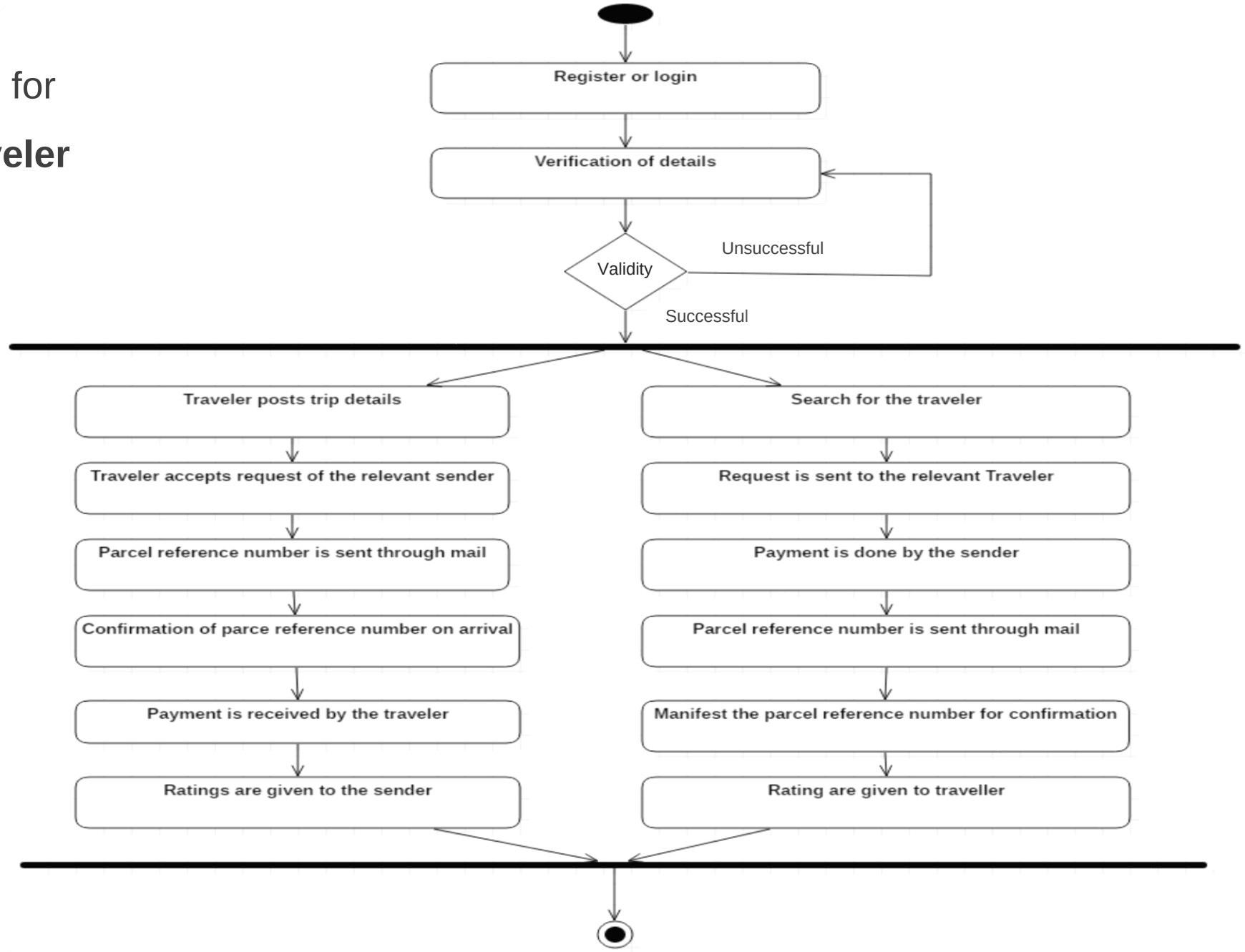
UML Diagram

Class Diagram



Activity diagram for

Requester & **Traveler**



Modules Implemented

- **Realtime Messaging:** Monitored conversations among users is one of the foundational elements of a good website which can achieved by this feature as it provides a great service where the Requester and Traveler can communicate with each other for all formalities.

- **Contract System:** It is a legal binding digital agreement system for both parties to ensure safety and security against scams throughout the transaction done within the website.

Modules (contd.)

- **Review System:** Reviews for the users are important because they serve as reference points for customers across the globe and also because so many people trust them when making decisions. Reviews give users the opportunity to express their opinion about the service and for evaluating the decisions.

- **Community Forum:** By giving users a go-to place to ask questions, help each other and learn, giving them much needed relief and improving their insight into their problem, a full-fledged support board is embedded as a part of the platform enabling open and public discussions related to the website.

Modules (contd.)

- **Escrow Service:** Escrow is the use of a third party capable of holding assets on behalf of two parties who are in the process of completing a transaction. It works in the following way

1. The recipient submits the amount into the escrow account.
2. The traveler performs the service/delivers the package.
3. The recipient receives the same.
4. The escrow releases the amount in favor of the traveler.

Testing Techniques

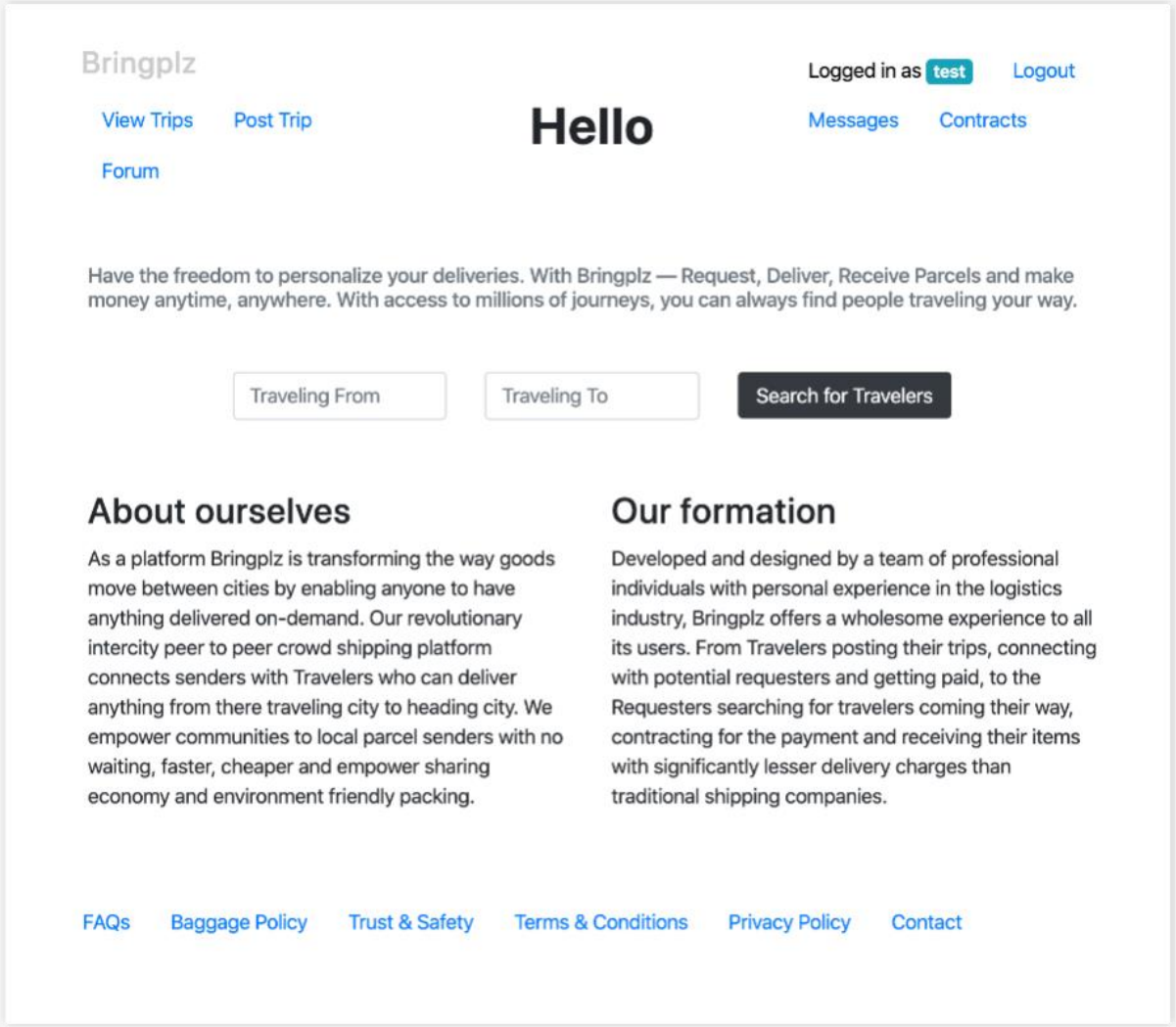
Application testing is the process of execution with an intent of finding errors.

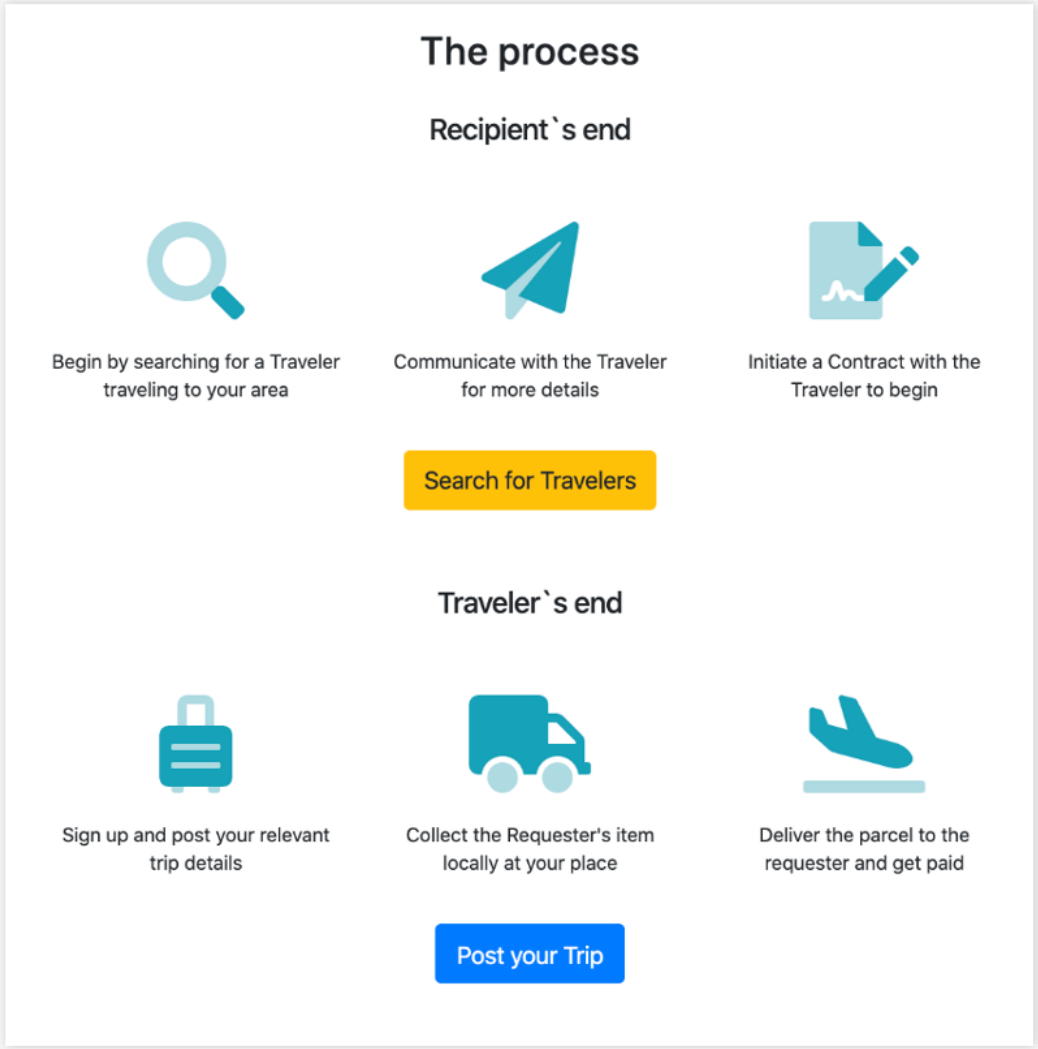
We are testing this project using:

- **Functionality Testing:** Test for – all the links in web pages, database connection, forms used in the web pages for submitting or getting information from user, cookie testing.
- **Security Testing:** Test by pasting internal URL directly into browser address bar without login. Internal pages should not be accessible. Implementation of SSL.
- **Usability Testing:** Test for Navigation of internal webpages through buttons and links.
- **Compatibility Testing:** Test for compatibility of the application over all common devices and browsers.

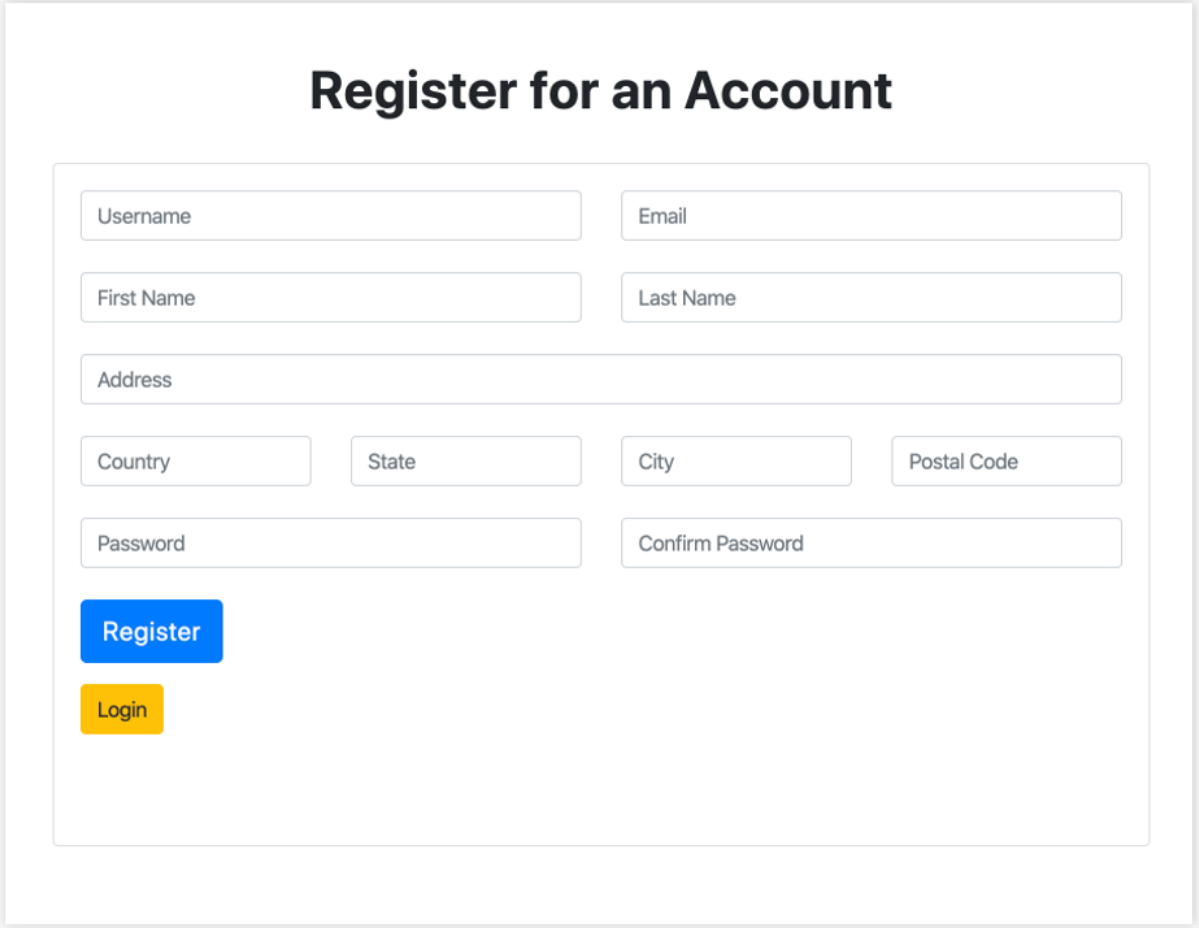
Observations & Results

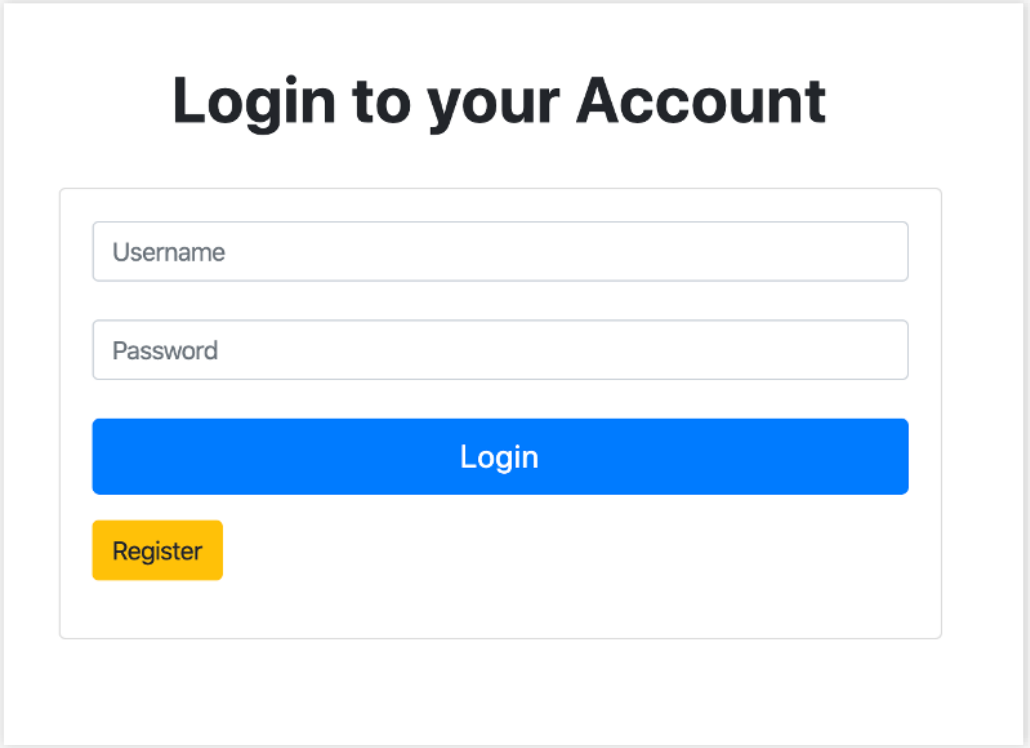
Homepage



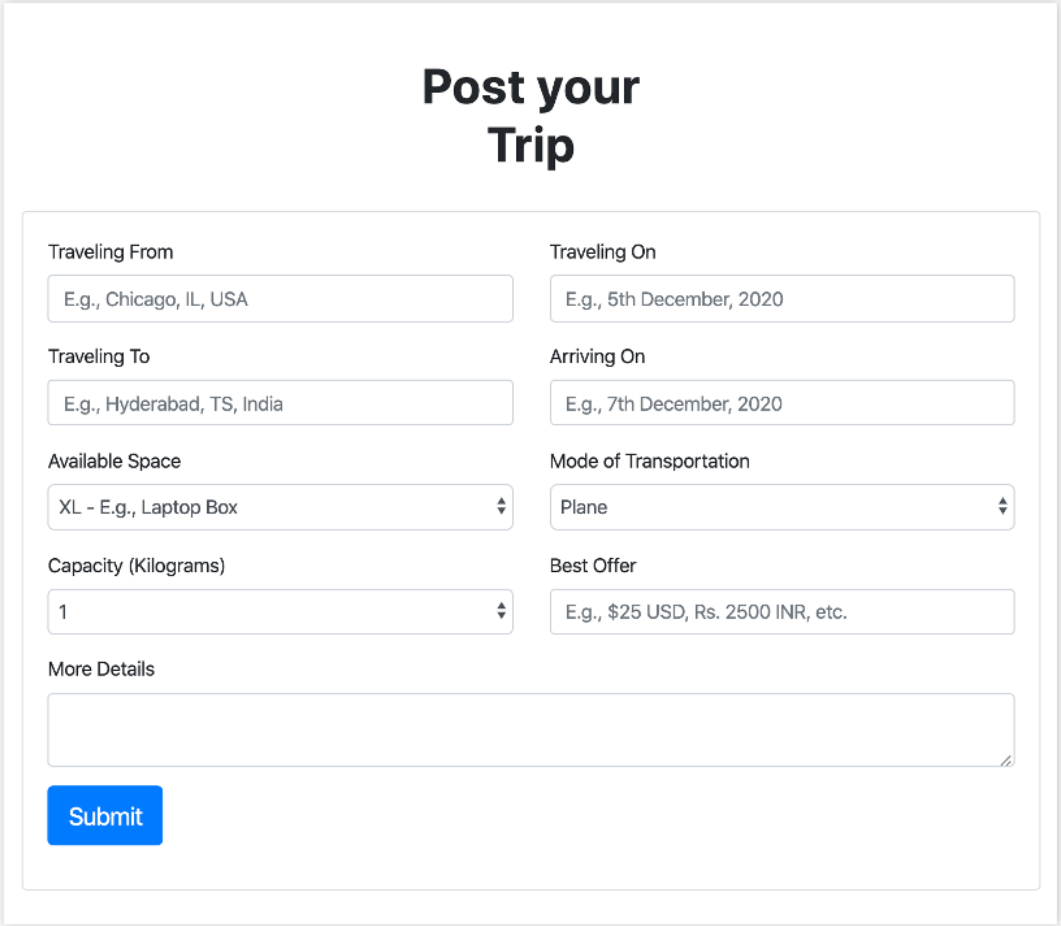


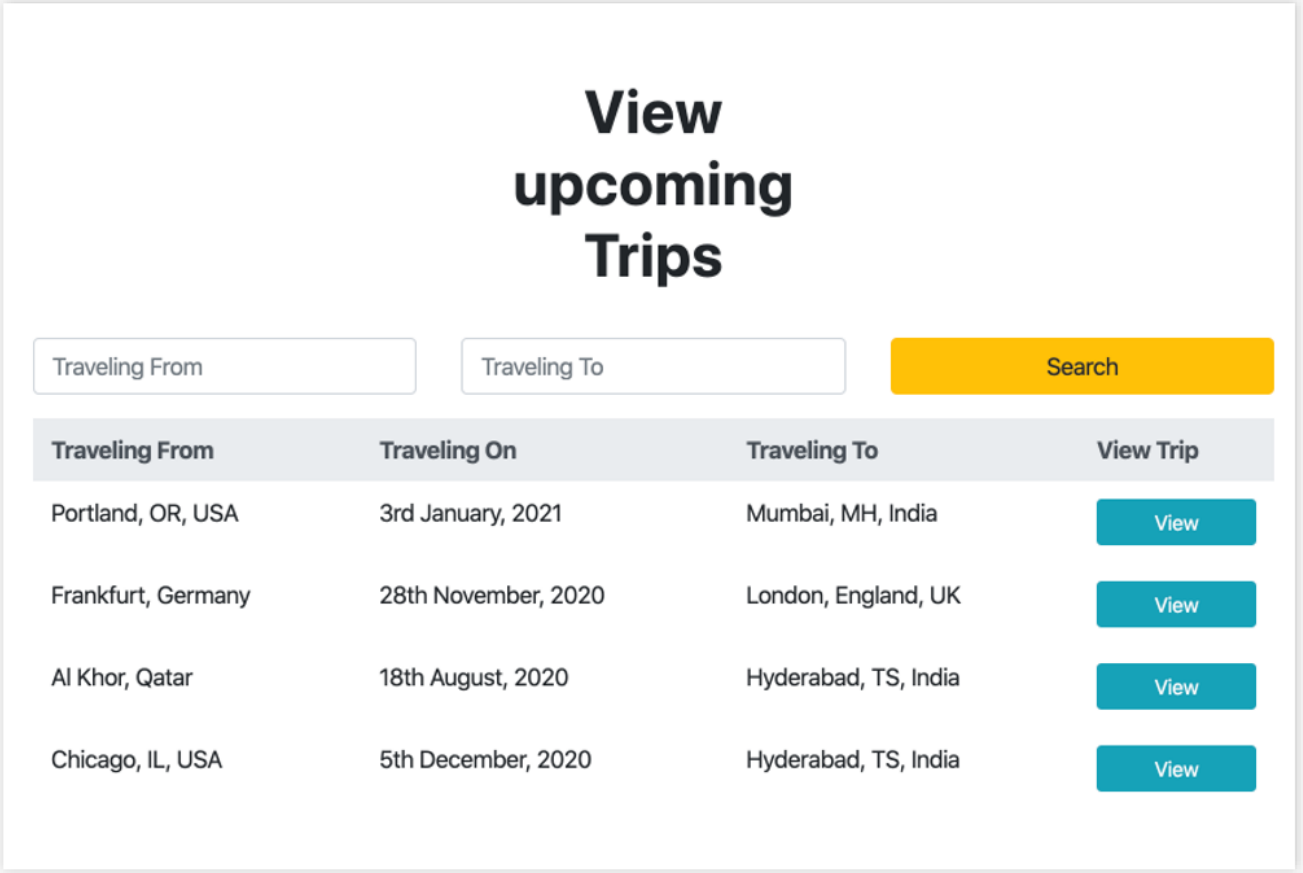
Login & Registration



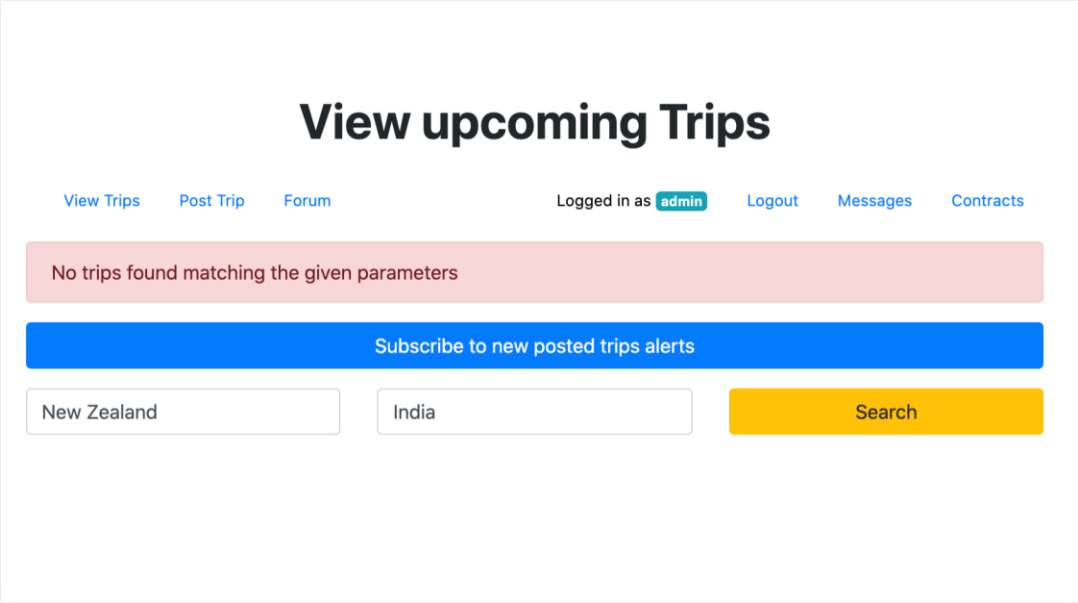


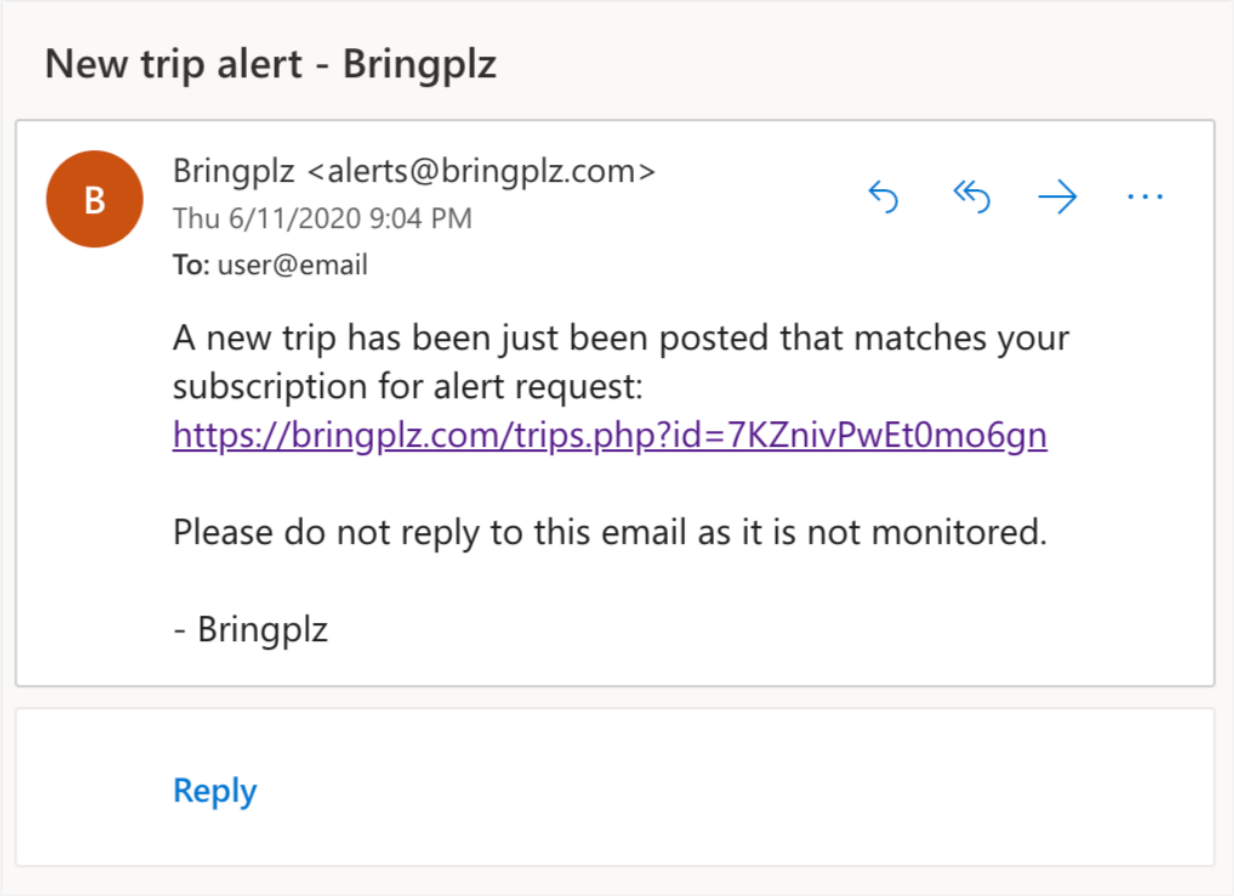
Trip Posting & Viewing



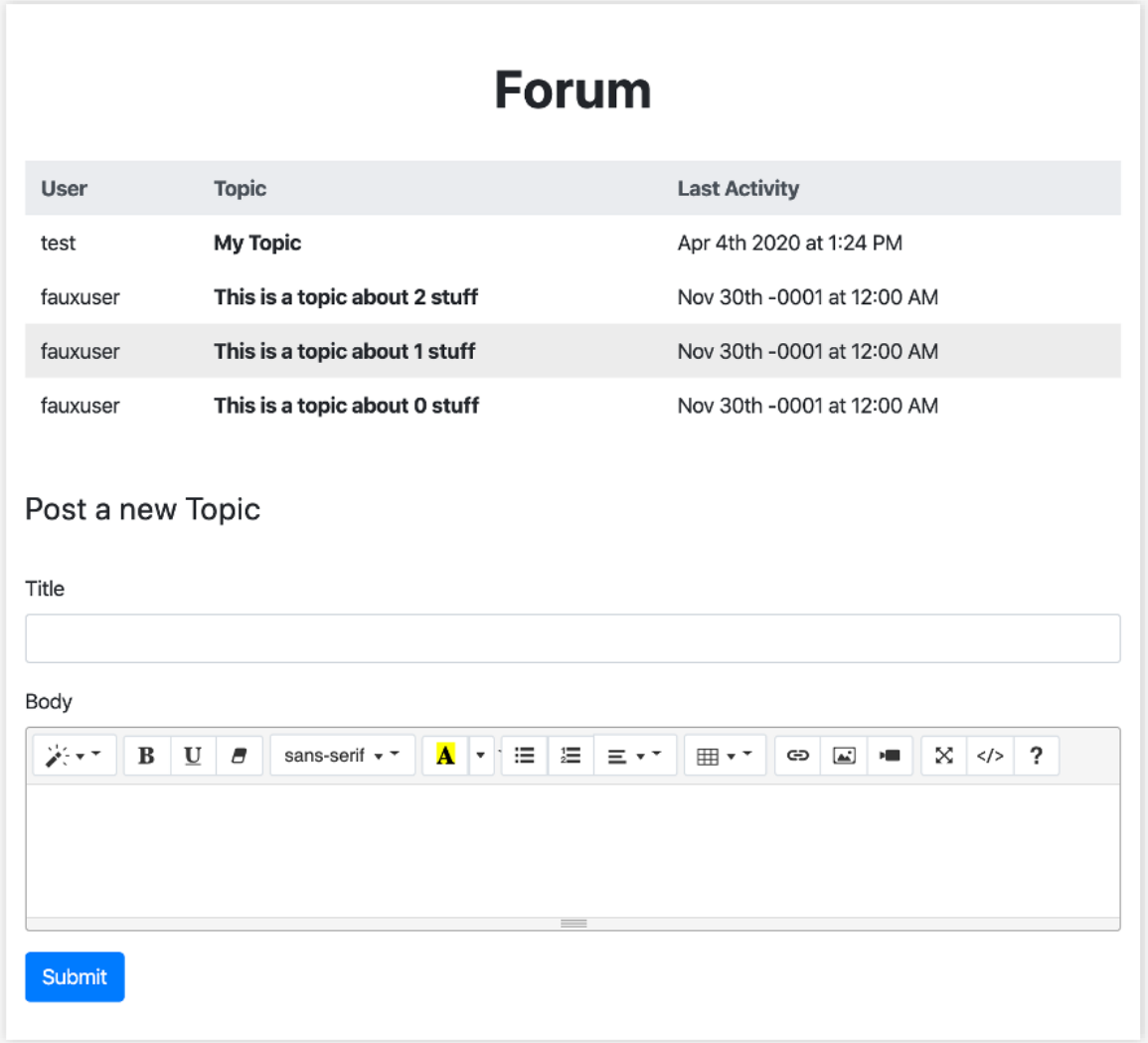


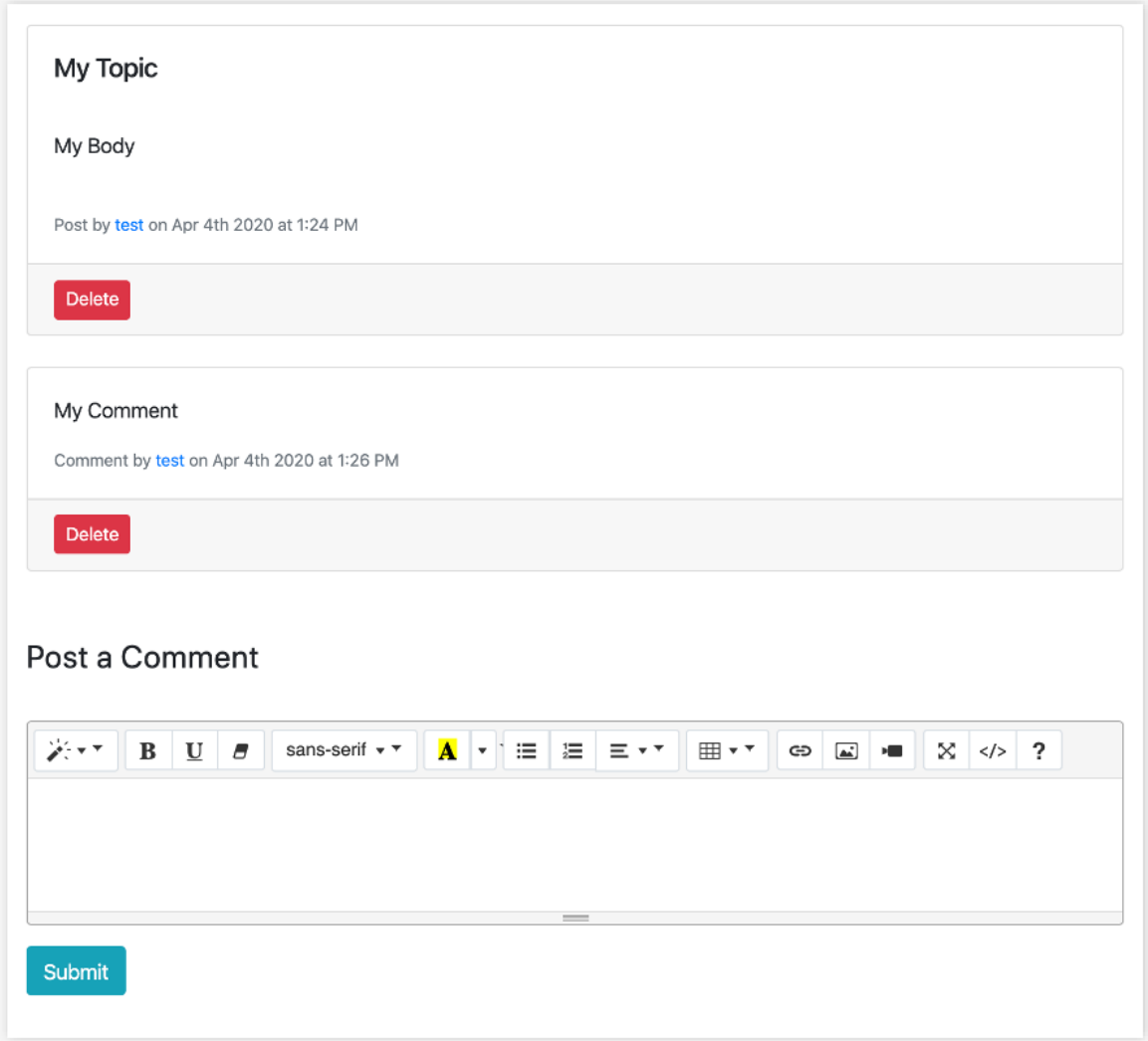
Trip Alerts & Subscriptions





Forum Community





Contract System

Contract between test2 & test

Amount

Rs. 3200 INR

Contract Status

Unpaid

Pay with PayPal

Traveling From

Portland, OR, USA

Traveling On

3rd January, 2021

Traveling To

Mumbai, MH, India

Arriving On

5th January, 2021

Available Space

M

Mode of Transportation

Plane

Capacity (Kilograms)

3KG

More Details

Detailed description of what the trip is about

Contact

End this Contract

Contract between test2 & test

Amount

Rs. 3200 INR

Contract Status

Ended

Traveling From

Portland, OR, USA

Traveling On

3rd January, 2021

Traveling To

Mumbai, MH, India

Arriving On

5th January, 2021

Available Space

M

Mode of Transportation

Plane

Capacity (Kilograms)

3KG

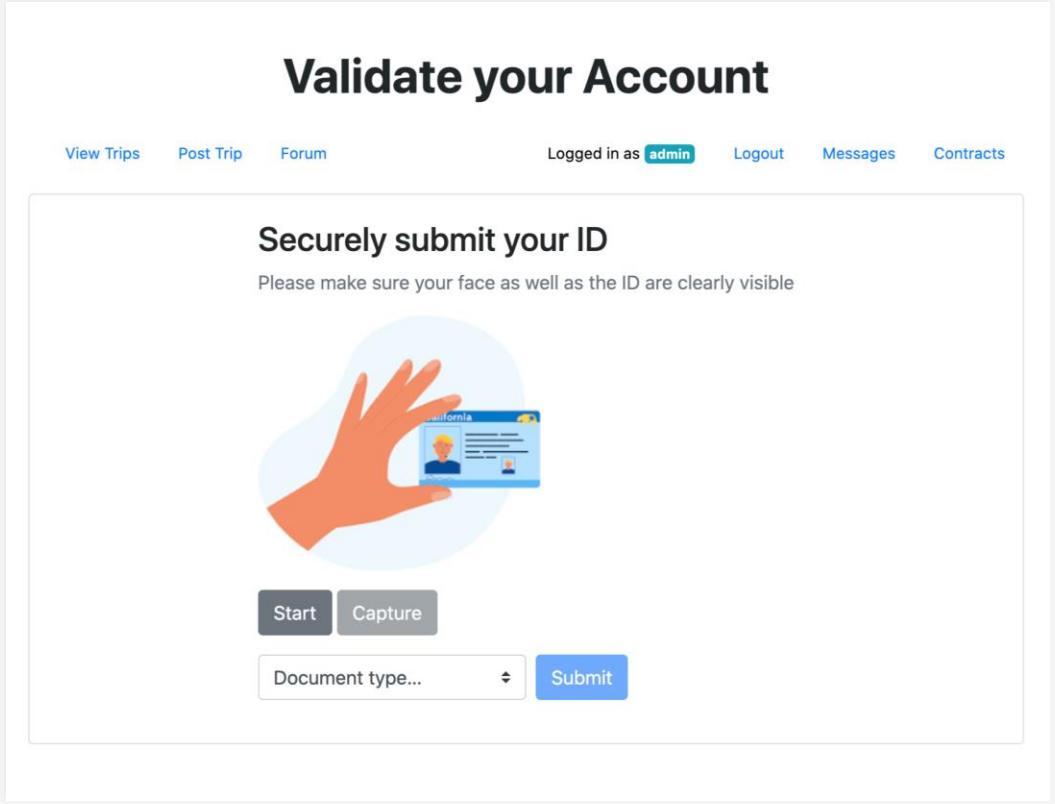
More Details

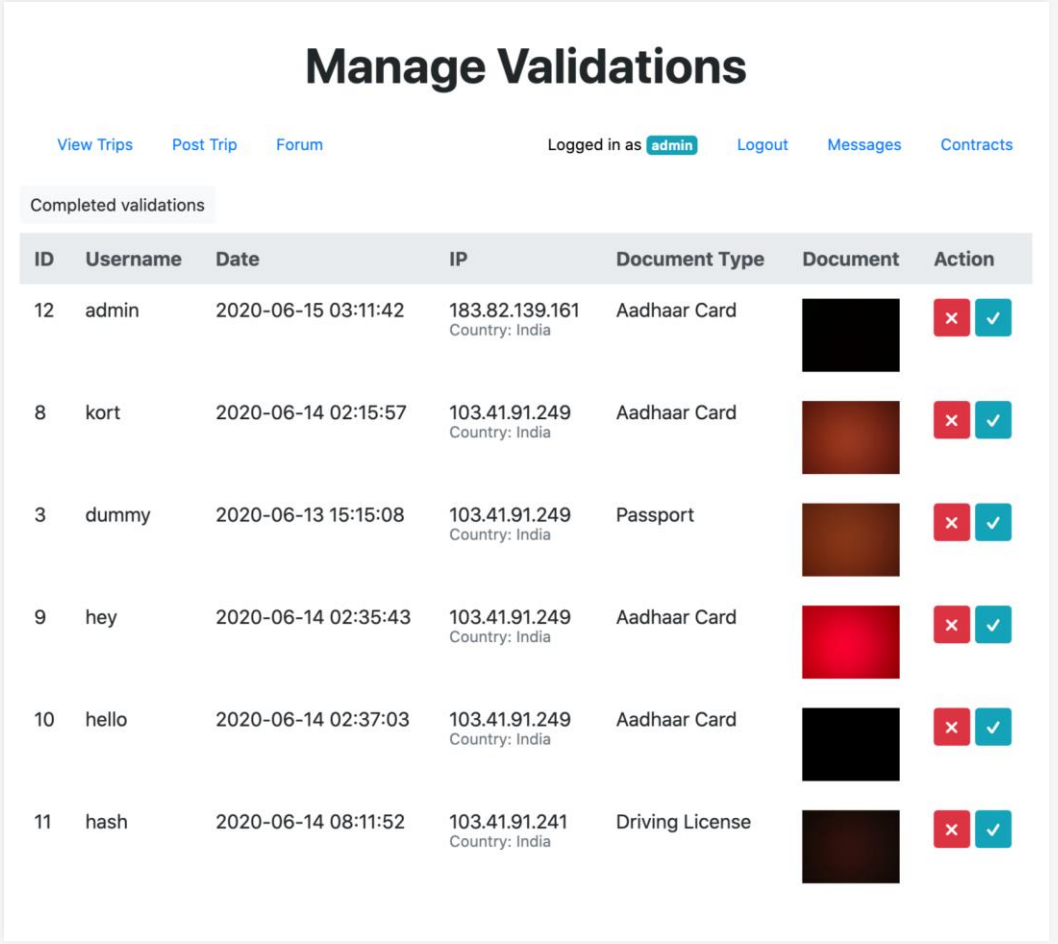
Detailed description of what the trip is about

Contact

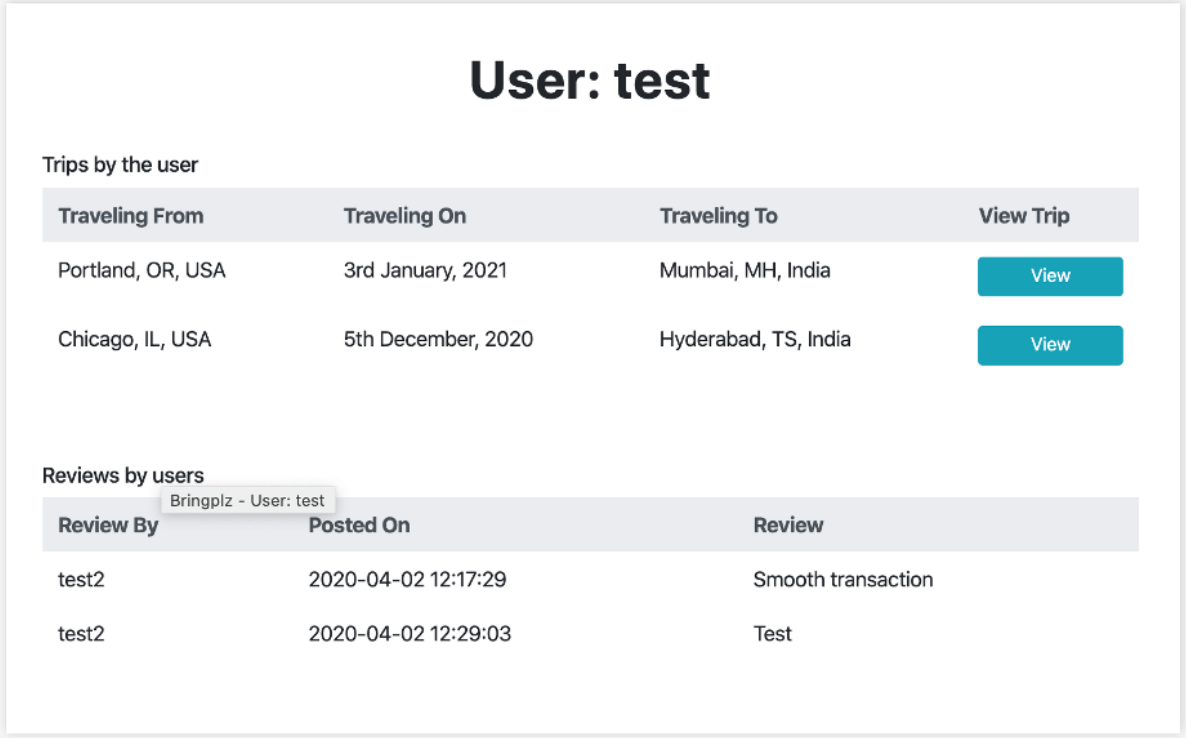
Leave a Review

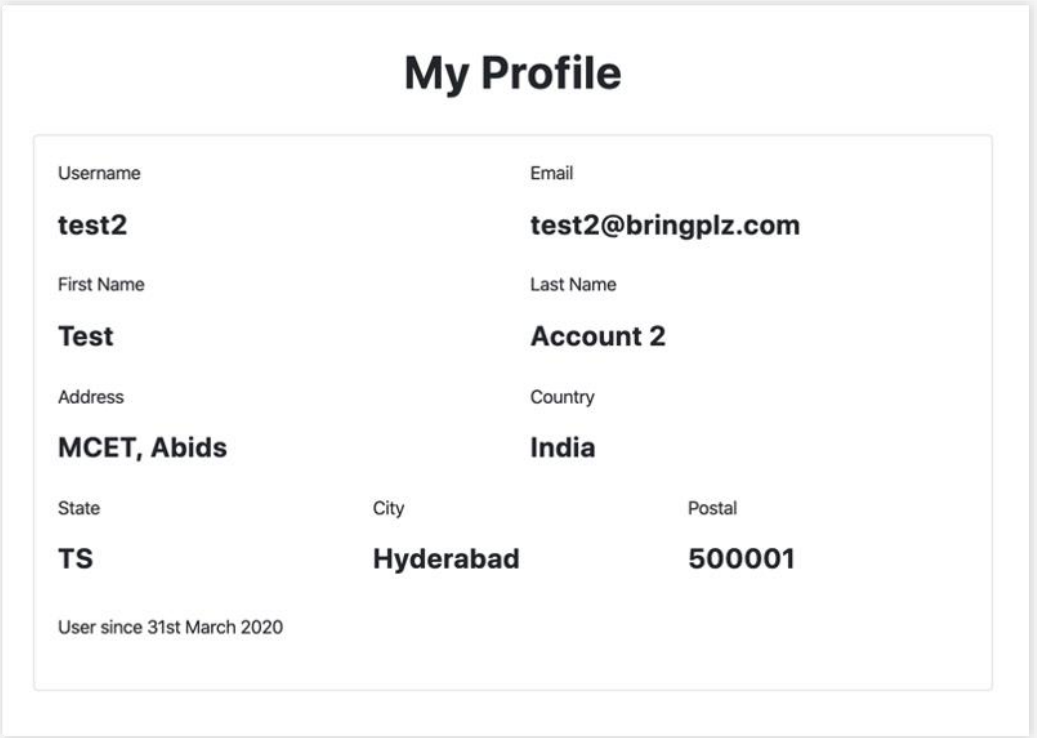
ID Validation System



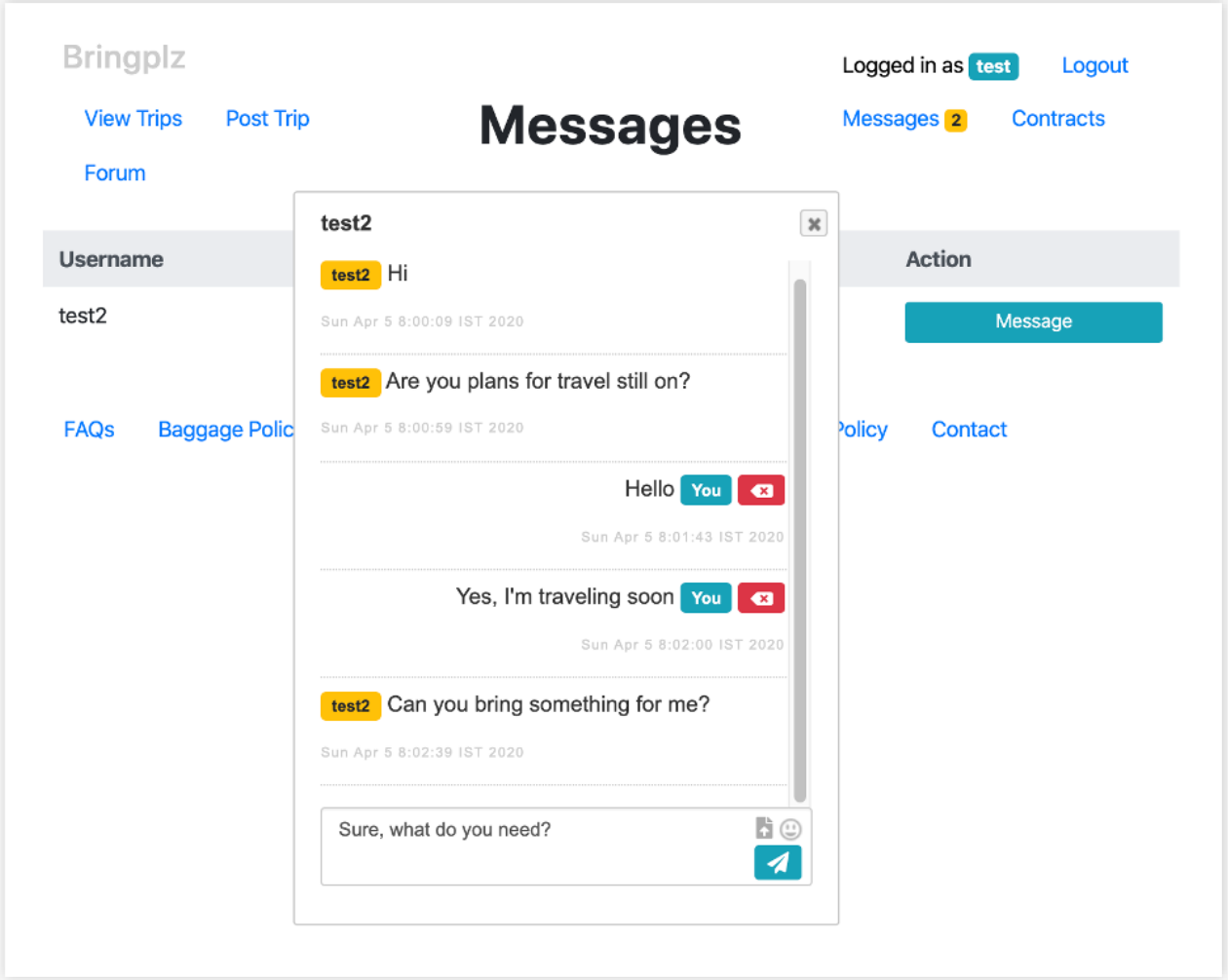


User Account & Profile





Realtime Messaging System



Conclusion

As a platform, our website Bringplz is transforming the logistics industry, in essence, the way goods move between cities by enabling anyone to have anything delivered on-demand. Our revolutionary peer to peer crowd shipping platform connects senders with Travelers who can deliver anything from there traveling city to heading city. We empower communities to local parcel senders with no waiting, faster, cheaper.

Future Scope

- Facial Recognition and comparison at ID Validation using ImageMagick
- Incentivize and advertise travelers
- Native apps
- Travel Itinerary based confirmation and tracking
- IP cross-check

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Q&A Session

Thank you