

An Alternative in Logistics: Crowdsourced Peer to Peer Delivery Platform

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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.

Contents

- Introduction
- System Analysis
- System Design
- Implementation
- Testing Techniques
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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

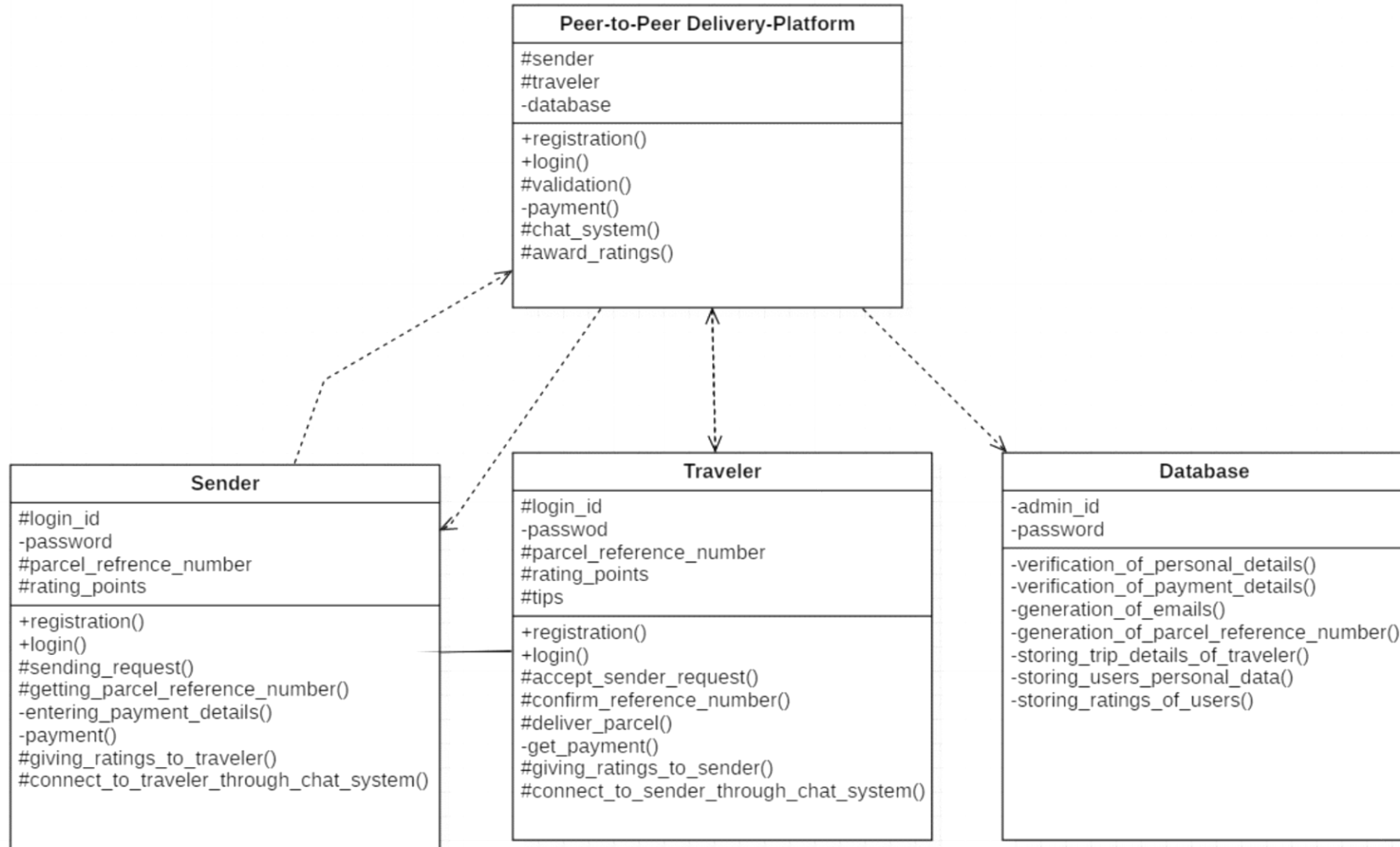
- PHP
- MySQL

System Design

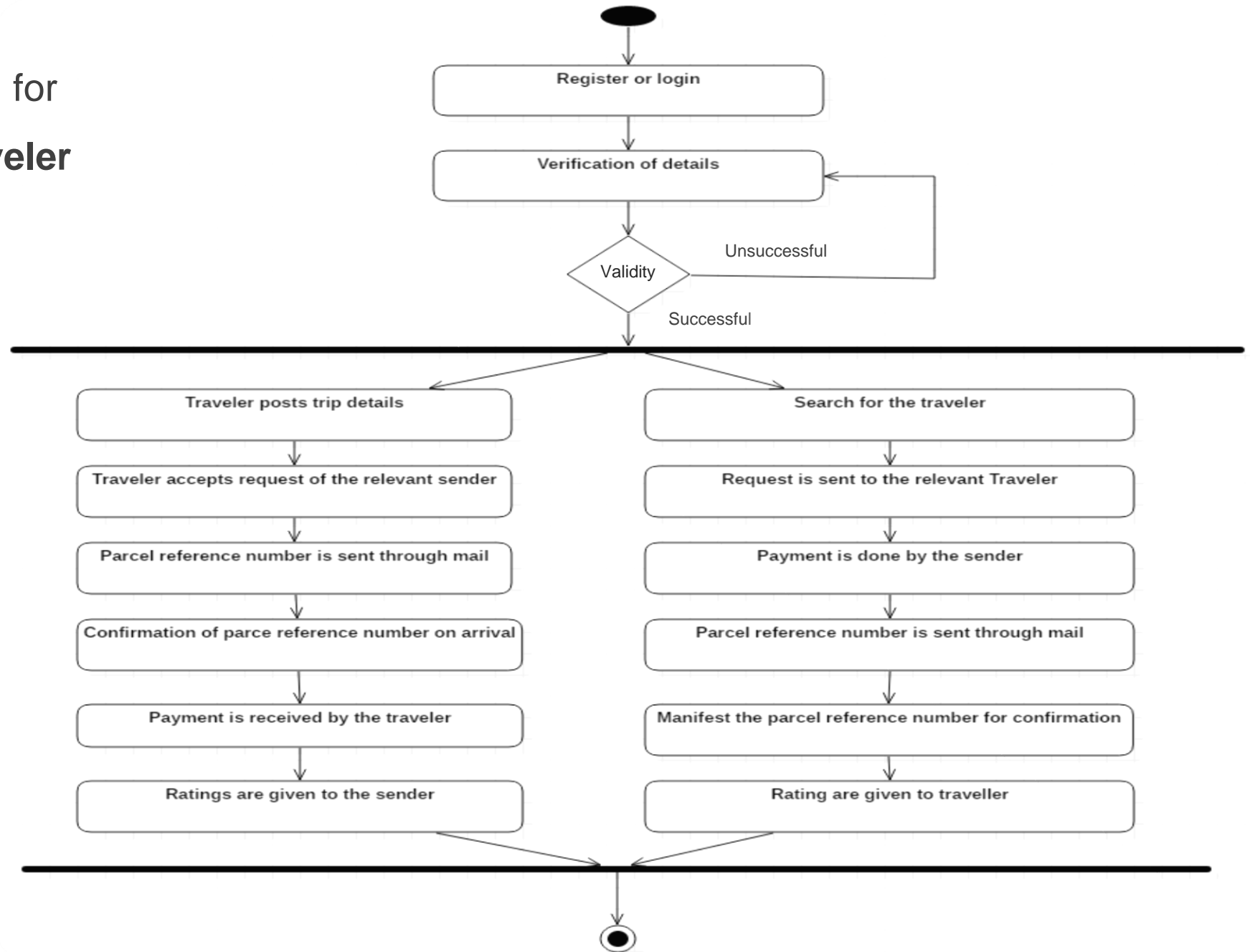
- Entity-Relationship (E-R) diagram
- UML Diagrams
 - Class diagram
 - Use-case diagrams
 - Activity diagram
 - Sequence diagram
 - State chart diagram

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 be 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

Bringplz

Logged in as **test** [Logout](#)

[View Trips](#) [Post Trip](#)

Hello

[Messages](#) [Contracts](#)

[Forum](#)

Have the freedom to personalize your deliveries. With Bringplz — Request, Deliver, Receive Parcels and make money anytime, anywhere. With access to millions of journeys, you can always find people traveling your way.

[Search for Travelers](#)

About ourselves

As a platform Bringplz is transforming the way goods move between cities by enabling anyone to have anything delivered on-demand. Our revolutionary intercity 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 and empower sharing economy and environment friendly packing.


Our formation


Developed and designed by a team of professional individuals with personal experience in the logistics industry, Bringplz offers a wholesome experience to all its users. From Travelers posting their trips, connecting with potential requesters and getting paid, to the Requesters searching for travelers coming their way, contracting for the payment and receiving their items with significantly lesser delivery charges than traditional shipping companies.


[FAQs](#) [Baggage Policy](#) [Trust & Safety](#) [Terms & Conditions](#) [Privacy Policy](#) [Contact](#)

The process

Recipient`s end



Begin by searching for a Traveler traveling to your area



Communicate with the Traveler for more details



Initiate a Contract with the Traveler to begin

[Search for Travelers](#)

Traveler`s end


Sign up and post your relevant trip details


Collect the Requester's item locally at your place


Deliver the parcel to the requester and get paid

[Post your Trip](#)

Login & Registration

Register for an Account

<input type="text" value="Username"/>	<input type="text" value="Email"/>		
<input type="text" value="First Name"/>	<input type="text" value="Last Name"/>		
<input type="text" value="Address"/>			
<input type="text" value="Country"/>	<input type="text" value="State"/>	<input type="text" value="City"/>	<input type="text" value="Postal Code"/>
<input type="text" value="Password"/>	<input type="text" value="Confirm Password"/>		
<input type="button" value="Register"/>			
<input type="button" value="Login"/>			

Login to your Account

<input type="text" value="Username"/>
<input type="text" value="Password"/>
<input type="button" value="Login"/>
<input type="button" value="Register"/>

Trip Posting & Viewing

Post your Trip

Traveling From	Traveling On
<input type="text" value="E.g., Chicago, IL, USA"/>	<input type="text" value="E.g., 5th December, 2020"/>
Traveling To	Arriving On
<input type="text" value="E.g., Hyderabad, TS, India"/>	<input type="text" value="E.g., 7th December, 2020"/>
Available Space	Mode of Transportation
<input type="text" value="XL - E.g., Laptop Box"/>	<input type="text" value="Plane"/>
Capacity (Kilograms)	Best Offer
<input type="text" value="1"/>	<input type="text" value="E.g., \$25 USD, Rs. 2500 INR, etc."/>
More Details	
<input type="text"/>	
<input type="button" value="Submit"/>	

View upcoming Trips

<input type="text" value="Traveling From"/>	<input type="text" value="Traveling To"/>	<input type="button" value="Search"/>	
Traveling From	Traveling On	Traveling To	View Trip
Portland, OR, USA	3rd January, 2021	Mumbai, MH, India	<input type="button" value="View"/>
Frankfurt, Germany	28th November, 2020	London, England, UK	<input type="button" value="View"/>
Al Khor, Qatar	18th August, 2020	Hyderabad, TS, India	<input type="button" value="View"/>
Chicago, IL, USA	5th December, 2020	Hyderabad, TS, India	<input type="button" value="View"/>

Trip Alerts & Subscriptions

View upcoming Trips

[View Trips](#) [Post Trip](#) [Forum](#) Logged in as **admin** [Logout](#) [Messages](#) [Contracts](#)

No trips found matching the given parameters

Subscribe to new posted trips alerts

New trip alert - Bringplz



Bringplz <alerts@bringplz.com>

Thu 6/11/2020 9:04 PM

To: user@email



A new trip has been just been posted that matches your subscription for alert request:

<https://bringplz.com/trips.php?id=7KZnivPwEt0mo6gn>

Please do not reply to this email as it is not monitored.

- Bringplz

[Reply](#)

Forum Community


Forum

User	Topic	Last Activity
test	My Topic	Apr 4th 2020 at 1:24 PM
fauxuser	This is a topic about 2 stuff	Nov 30th -0001 at 12:00 AM
fauxuser	This is a topic about 1 stuff	Nov 30th -0001 at 12:00 AM
fauxuser	This is a topic about 0 stuff	Nov 30th -0001 at 12:00 AM

Post a new Topic

Title

Body



Submit

My Topic

My Body

Post by [test](#) on Apr 4th 2020 at 1:24 PM


Delete

My Comment

Comment by [test](#) on Apr 4th 2020 at 1:26 PM

Delete

Post a Comment



Submit

Contract System

Contract between test2 & test

Amount

Rs. 3200 INR

Traveling From

Portland, OR, USA

Traveling To

Mumbai, MH, India

Available Space

M

Capacity (Kilograms)

3KG

More Details

Detailed description of what the trip is about

Contact

End this Contract

Contract Status

Unpaid

Pay with **PayPal**

Traveling On

3rd January, 2021

Arriving On

5th January, 2021

Mode of Transportation

Plane

Contract between test2 & test

Amount

Rs. 3200 INR

Traveling From

Portland, OR, USA

Traveling To

Mumbai, MH, India

Available Space

M

Capacity (Kilograms)

3KG

More Details

Detailed description of what the trip is about

Contact

Leave a Review

Contract Status

Ended

Traveling On

3rd January, 2021

Arriving On

5th January, 2021

Mode of Transportation

Plane


ID Validation System

Validate your Account

[View Trips](#) [Post Trip](#) [Forum](#) Logged in as **admin** [Logout](#) [Messages](#) [Contracts](#)

Securely submit your ID







Please make sure your face as well as the ID are clearly visible



Manage Validations

[View Trips](#) [Post Trip](#) [Forum](#) Logged in as **admin** [Logout](#) [Messages](#) [Contracts](#)

Completed validations

ID	Username	Date	IP	Document Type	Document	Action
12	admin	2020-06-15 03:11:42	183.82.139.161 Country: India	Aadhaar Card		<input type="button" value="✖"/> <input type="button" value="✔"/>
8	kort	2020-06-14 02:15:57	103.41.91.249 Country: India	Aadhaar Card		<input type="button" value="✖"/> <input type="button" value="✔"/>
3	dummy	2020-06-13 15:15:08	103.41.91.249 Country: India	Passport		<input type="button" value="✖"/> <input type="button" value="✔"/>
9	hey	2020-06-14 02:35:43	103.41.91.249 Country: India	Aadhaar Card		<input type="button" value="✖"/> <input type="button" value="✔"/>
10	hello	2020-06-14 02:37:03	103.41.91.249 Country: India	Aadhaar Card		<input type="button" value="✖"/> <input type="button" value="✔"/>
11	hash	2020-06-14 08:11:52	103.41.91.241 Country: India	Driving License		<input type="button" value="✖"/> <input type="button" value="✔"/>

User Account & Profile

User: test

Trips by the user

Traveling From	Traveling On	Traveling To	View Trip
Portland, OR, USA	3rd January, 2021	Mumbai, MH, India	View
Chicago, IL, USA	5th December, 2020	Hyderabad, TS, India	View

Reviews by users

Review By	Posted On	Review
test2	2020-04-02 12:17:29	Smooth transaction
test2	2020-04-02 12:29:03	Test

My Profile

Username

test2

First Name

Test

Address

MCET, Abids

State

TS

User since 31st March 2020

Email

test2@bringplz.com

Last Name

Account 2

Country

India

City

Hyderabad

Postal

500001

Realtime Messaging System

Bringplz Logged in as **test** [Logout](#)

[View Trips](#) [Post Trip](#) **Messages** 2 [Contracts](#)

[Forum](#)

Messages

Username **Action**

test2 [Message](#)

[FAQs](#) [Baggage Polic](#) [Policy](#) [Contact](#)

test2 Hi

Sun Apr 5 8:00:09 IST 2020

test2 Are you plans for travel still on?

Sun Apr 5 8:00:59 IST 2020

Hello **You** ✕

Sun Apr 5 8:01:43 IST 2020

Yes, I'm traveling soon **You** ✕

Sun Apr 5 8:02:00 IST 2020

test2 Can you bring something for me?

Sun Apr 5 8:02:39 IST 2020

📎 😊 🚀

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

References

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5. “Preliminary investigation of a crowdsourced package delivery system: A case study”, S Ballare, J Lin - City Logistics 3, 2018

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Q&A Session

Thank you