**Project Documentation**

**Domain:**

Web development

**Project Title:**

SwiftBridge a service-based platform

**Introduction:**

This project aims to create a web platform that serves as a bridge between parcel senders (those who wish to send items) and public travelers (those traveling from one place to another). The idea is to enable travelers to deliver parcels while they’re already on their journeys, allowing senders to avoid traditional courier services, and providing travelers with an opportunity to earn money by delivering parcels along their routes.

**System Overview:**

The platform will allow two primary user roles:

* Parcel Senders: People who need to send parcels from one place to another.
* Travelers (Public): Individuals who are traveling and willing to carry and deliver parcels as part of their journey.

**System Features & Functionalities:**

**Parcel Sender’s Role:**

* **Account Creation & Login**
  + Senders create an account by providing their name, email, and phone number.
  + Log in to post parcels.
* **Parcel Posting**
* Senders provide details:
* Image: Upload a photo of the parcel.
  + Weight & Dimensions: Enter weight and size.
  + Pickup & Delivery Locations: Specify where to pick up and drop off the parcel.
  + Payment: Set the maximum amount for delivery.
* **Parcel Listing**

Parcels are listed on the platform and visible to travelers with matching routes.

* **Notifications**
* Senders get notified when a traveler selects their parcel.
* Updates provided on parcel status: picked up, in transit, and delivered.

**Travelers role:**

* **Account Creation & Login**
  + Travelers create an account with basic details, Aadhar card, and driver’s license.
  + Log in to view available parcels.
* **Parcel Search & Filtering**
* Search for parcels matching their route and preferences.
* Use filters like:
  + Pickup and drop-off locations.
  + Parcel size and weight.
  + Payment offered.
* **Parcel Selection**
  + Browse and select parcels they are willing to carry.
  + Selected parcels are marked as "Reserved."
* **Pickup Confirmation**
  + Confirm pickup and delivery details with the sender.
  + Proceed to pick up the parcel.
* **Tracking & Updates**

Update parcel status (e.g., "In Transit," "Delivered") during the journey.

* **Payment**

Receive payment after successful delivery and sender confirmation.

**Workflow:**

**1. Posting Process (For Senders):**

* **Step 1**: The sender logs into their account.
* **Step 2**: The sender inputs parcel details (image, weight, dimensions, from place, to place, maximum payment).
* **Step 3**: The parcel is posted on the platform and made available for travelers to view and select.
* **Step 4**: The system waits for a traveler to pick up the parcel.

**2. Selection Process (For Travelers):**

* **Step 1**: The traveler logs into their account.
* **Step 2**: The traveler views available parcels along their route.
* **Step 3**: The traveler selects a parcel they’re willing to deliver.
* **Step 4**: The system updates the parcel status to "Reserved" and notifies both the sender and traveler.
* **Step 5**: The traveler proceeds to pick up the parcel from the sender.

**3. Delivery Process (For Travelers):**

* **Step 1**: The traveler picks up the parcel from the sender at the agreed pickup location.
* **Step 2**: The traveler marks the parcel as "In Transit" on the platform.
* **Step 3**: The traveler delivers the parcel to the receiver.
* **Step 4**: The receiver confirms delivery.
* **Step 5**: The traveler gets paid the agreed amount.

**4. Payment Flow:**

* **Step 1**: The sender deposits the payment amount into the platform’s escrow system.
* **Step 2**: The traveler gets paid after the receiver confirms the parcel has been delivered.

**Technology Stack**

1. **Frontend**
   * **HTML/CSS/JavaScript**: For basic structure and styling.
   * **React.js**: For building dynamic and interactive user interfaces.
   * **Google Maps API**: For route visualization and parcel tracking.
2. **Backend**
   * **Spring Boot**: To handle user authentication, parcel posting, and status updates.
   * **MySQL**: For storing user details, parcel data, and transaction information.
3. **Payment Integration**
   * **Stripe or PayPal**: For secure payment processing (escrow system).
4. **Authentication**
   * **JWT (JSON Web Tokens)**: For secure user authentication and authorization.
5. **APIs**
   * **Geolocation API**: To track parcel movement and match travelers with parcels based on routes.

**Company Name:**

Innovative EdTech Solutions

<http://localhost:8080/SwiftBridge/Signup>

{

  "userid": null,

  "name": "John Doe",

  "emailid": "johndoel.com",

  "mobileno": 987654321,

  "password": "sass123",

  "address": "123 Main Street, New York",

  "role": "Sender",

  "adharNumber": 123456789012,

  "license": "DL1234567890",

  "joindate": "2025-02-06T00:00:00"

}

<http://localhost:8080/SwiftBridge/login>{

    "emailid": "johndoel.com",

    "password": "sass123"

}

<http://localhost:8080/SwiftBridge/addproduct>

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  "productid":3,

  "user": {

    "userid": 275919

  },

  "travellerid": null,

  "image": null,

  "dimantion": "10x10x5 cm",

  "weight": 2.5,

  "price": 500,

  "from\_address": "123 Main Street, New York",

  "to\_address": "456 Elm Street, Los Angeles"

}

<http://localhost:8080/SwiftBridge/addproduct>

user :{"userid": 909541}

travellerid:123

dimantion:10x10x5 cm↵

weight:2.5

price:500

from\_address:123 Main Street, New York↵

to\_address:456 Elm Street, Los Angeles↵

<http://localhost:8080/SwiftBridge/view/987361>

<http://localhost:8080/SwiftBridge/traveler>

{

    "user":{"userid": 804983},

    "adharNumber":2323,

    "license":"wewe"

}

<http://localhost:8080/SwiftBridge/getproducts/250558>

<http://localhost:8080/SwiftBridge/parcelchoose>

{

     "userid":833549,

    "parcelid": "P-b38b9bd0"

}

<http://localhost:8080/SwiftBridge/travellerDetail?userid=661421>

userid:661421

<http://localhost:8080/SwiftBridge/complete?productid=P-f57883a3>

productid:P-f57883a3

<http://localhost:8080/SwiftBridge/travellerparcel?travellerid=804983>

travellerid:804983