# StaySolutionBD (A solution Rental Services Website)

# **Software Requirement Specification**

# 1. Planning and Research:

- Market Research: Understand your target audience, what they want, and how you can make your application stand out from the competition.
- Determine Technical Requirements: Understand the tech stack, hosting, and third-party integrations you'll need.

# 2. Core Features:

# User Registration and Profiles:

- Separate registration processes for property owners and renters.
- Profiles should store and display relevant details (e.g., owner's properties, tenant's booking history).

## Property Listing:

- Owners can add/edit/delete their property listings.
- Key details: Images, pricing, amenities, rules, location (with map integration), available dates, etc.

#### Search and Filter:

- Tenants can search properties based on various criteria like location, price range, amenities, and more.
- Detailed property view with all the info and owner contact details.

### Booking System:

- Tenants can book available properties for desired dates.
- Calendar integration to show availability.
- Booking confirmation process (either instant or after owner's approval).

## Payment Integration:

- Tenants can pay their rent online.
- Support various payment methods (credit card, bank transfer, digital wallets).
- Automatic payment reminders.

#### Refair/Issue Reporting:

- Tenants can report issues they face during their stay.
- Integration with ticketing system so owners can track and resolve the issue.

## Messaging System:

- Direct messaging between owners and tenants.
- Ensure security and privacy, consider end-to-end encryption.

## Ratings and Reviews:

After the stay, tenants can rate and review properties.

Owners can respond to reviews.

# 3. Additional Features:

- Dashboard: Both for tenants and owners to get a snapshot of bookings, payments, and other relevant details.
- Notifications: Email and in-app notifications for bookings, payments, messages, etc.
- Analytics: For owners to understand booking trends, popular dates, income tracking, etc.
- Dynamic Pricing: Owners can adjust prices based on demand, season, or other factors.

# 4. Development:

- Choose the Tech Stack: Depending on your requirements, you might consider using frameworks and technologies like Next.js for the front end and Node.js, for the backend.
- **Database:** PostgreSQL, could be used to store user profiles, property listings, and booking details.
- APIs: Use third-party APIs for payments (e.g., Stripe, PayPal), messaging, maps, etc.

# 5. Testing:

- Quality Assurance: Ensure that all features work as expected. Test for various user roles (tenant, owner).
- Security: Important due to payments and personal information. Consider regular security audits.

# 6. Launch and Marketing:

- Beta Testing: Launch a beta version for a select group of users to gather feedback and make improvements.
- **Marketing:** Utilize social media, SEO, and possibly partnerships with real estate agents or agencies.

# 7. Post-Launch:

- Feedback Loop: Keep gathering feedback to refine and enhance the platform.
- Continuous Updates: Regularly update the software based on technological advancements and user requirements.

# **Entities**

#### User:

- UserID (Primary Key)
- FirstName, LastName, Email, Password, Phone, ProfilePic, UserType, PreferredPropertyType, PreferredAmenities, PreferredLocation, SearchHistory, BookingHistory, SocialMediaLinks, UserStatus

## Property:

- PropertyID (Primary Key)
- OwnerID (Foreign Key referencing User)
- Address, Description, NumberOfRooms, Amenities, Rules, Pricing, ImageGallery, AvailabilityCalendar, PropertyStatus, VideoLink, PropertyTags, FloorPlans

### **Booking:**

- BookingID (Primary Key)
- TenantID (Foreign Key referencing User)
- PropertyID (Foreign Key referencing Property)
- StartDate, EndDate, BookingStatus, SpecialRequests

### Payment:

- PaymentID (Primary Key)
- BookingID (Foreign Key referencing Booking)
- Amount, PaymentMethod, PaymentStatus, PaymentDate, SecurityDepositAmount

#### Review:

- ReviewID (Primary Key)
- PropertyID (Foreign Key referencing Property)
- TenantID (Foreign Key referencing User)
- Rating, Comments, ReviewDate, ResponseFromOwner, ReviewPhotos

#### Issue (Refair):

- IssueID (Primary Key)
- PropertyID (Foreign Key referencing Property)
- TenantID (Foreign Key referencing User)
- IssueDescription, IssueStatus, ReportDate, PriorityLevel

#### Message:

- MessageID (Primary Key)
- SenderID (Foreign Key referencing User)
- ReceiverID (Foreign Key referencing User)
- Content, Timestamp, MessageCategory

### **Notification:**

- NotificationID (Primary Key)
- UserID (Foreign Key referencing User)
- Content, Timestamp, NotificationType, NotificationPlatform

## Wishlist:

- WishlistID (Primary Key)
- UserID (Foreign Key referencing User)
- PropertyID (Foreign Key referencing Property)
- DateAdded

## **Loyalty Program:**

- LoyaltyID (Primary Key)
- UserID (Foreign Key referencing User)
- Points, RedemptionHistory

## **Local Services & Attractions:**

- ServiceID (Primary Key)
- Location, ServiceType, Description, ContactDetails, OperatingHours

## Safety:

- SafetyID (Primary Key)
- PropertyID (Foreign Key referencing Property)
- SafetyAmenities, SafetyScore

## Marketplace:

- ItemID (Primary Key)
- OwnerID (Foreign Key referencing User)
- ItemDescription, Price, Category

#### Insurance:

- InsuranceID (Primary Key)
- PropertyID (Foreign Key referencing Property)
- TenantID (Foreign Key referencing User)
- PolicyDetails, CoverageAmount, ExpiryDate

# **Entity Relationship Diagram Data**

## 1. User:

| Attribute | Туре     |
|-----------|----------|
| UserID    | INT (PK) |
| FirstName | VARCHAR  |
| LastName  | VARCHAR  |

| Email                 | VARCHAR |
|-----------------------|---------|
| Password              | VARCHAR |
| Phone                 | VARCHAR |
| ProfilePic            | VARCHAR |
| UserType              | ENUM    |
| PreferredPropertyType | VARCHAR |
| PreferredAmenities    | TEXT    |
| PreferredLocation     | VARCHAR |
| SearchHistory         | TEXT    |
| BookingHistory        | TEXT    |
| SocialMediaLinks      | TEXT    |
| UserStatus            | ENUM    |

# 2. Property:

| Attribute   | Туре     |
|-------------|----------|
| PropertyID  | INT (PK) |
| OwnerID     | INT (FK) |
| Address     | TEXT     |
| Description | TEXT     |

| NumberOfRooms        | INT     |
|----------------------|---------|
| Amenities            | TEXT    |
| Rules                | TEXT    |
| Pricing              | DECIMAL |
| ImageGallery         | TEXT    |
| AvailabilityCalendar | TEXT    |
| PropertyStatus       | ENUM    |
| VideoLink            | VARCHAR |
| PropertyTags         | TEXT    |
| FloorPlans           | VARCHAR |

# 3. Booking:

| Attribute  | Туре     |
|------------|----------|
| BookingID  | INT (PK) |
| TenantID   | INT (FK) |
| PropertyID | INT (FK) |
| StartDate  | DATE     |
| EndDate    | DATE     |

| BookingStatus   | ENUM |
|-----------------|------|
| SpecialRequests | TEXT |

# 4. Payment:

| Attribute             | Туре     |
|-----------------------|----------|
| PaymentID             | INT (PK) |
| BookingID             | INT (FK) |
| Amount                | DECIMAL  |
| PaymentMethod         | ENUM     |
| PaymentStatus         | ENUM     |
| PaymentDate           | DATE     |
| SecurityDepositAmount | DECIMAL  |

# 5. Review:

| Attribute  | Туре     |
|------------|----------|
| ReviewID   | INT (PK) |
| PropertyID | INT (FK) |
| TenantID   | INT (FK) |
| Rating     | INT      |
| Comments   | TEXT     |

| ReviewDate        | DATE |
|-------------------|------|
| ResponseFromOwner | TEXT |
| ReviewPhotos      | TEXT |

# 6. Issue (Repair):

| Attribute        | Туре     |
|------------------|----------|
| IssueID          | INT (PK) |
| PropertyID       | INT (FK) |
| TenantID         | INT (FK) |
| IssueDescription | TEXT     |
| IssueStatus      | ENUM     |
| ReportDate       | DATE     |
| PriorityLevel    | ENUM     |

# 7. Message:

| Attribute  | Туре     |
|------------|----------|
| MessageID  | INT (PK) |
| SenderID   | INT (FK) |
| ReceiverID | INT (FK) |
| Content    | TEXT     |

| Timestamp       | DATETIME |
|-----------------|----------|
| MessageCategory | ENUM     |

# 8. Notification:

| Attribute            | Туре     |
|----------------------|----------|
| NotificationID       | INT (PK) |
| UserID               | INT (FK) |
| Content              | TEXT     |
| Timestamp            | DATETIME |
| NotificationType     | ENUM     |
| NotificationPlatform | ENUM     |

# 9. Wishlist:

| Attribute  | Туре     |
|------------|----------|
| WishlistID | INT (PK) |
| UserID     | INT (FK) |
| PropertyID | INT (FK) |
| DateAdded  | DATE     |

# 10. Loyalty Program:

| Attribute         | Туре     |
|-------------------|----------|
| LoyaltyID         | INT (PK) |
| UserID            | INT (FK) |
| Points            | INT      |
| RedemptionHistory | TEXT     |

# 11. Local Services & Attractions:

| Attribute      | Туре     |
|----------------|----------|
| ServiceID      | INT (PK) |
| Location       | TEXT     |
| ServiceType    | ENUM     |
| Description    | TEXT     |
| ContactDetails | TEXT     |
| OperatingHours | TIME     |

# 12. Safety:

| Attribute  | Туре     |
|------------|----------|
| SafetyID   | INT (PK) |
| PropertyID | INT (FK) |

| SafetyAmenities | TEXT |
|-----------------|------|
| SafetyScore     | INT  |

# 13. Marketplace:

| Attribute       | Туре     |
|-----------------|----------|
| ItemID          | INT (PK) |
| OwnerID         | INT (FK) |
| ItemDescription | TEXT     |
| Price           | DECIMAL  |
| Category        | ENUM     |

# 16. Insurance:

| Attribute      | Туре     |
|----------------|----------|
| InsuranceID    | INT (PK) |
| PropertyID     | INT (FK) |
| TenantID       | INT (FK) |
| PolicyDetails  | TEXT     |
| CoverageAmount | DECIMAL  |
| ExpiryDate     | DATE     |

# Relationships

## **User to Property:**

- Relationship Name: "Owns"
- Description: A user can own multiple properties, but each property is owned by a single user.
- Cardinality: One to Many (from User to Property)

## User to Booking:

- Relationship Name: "Books"
- Description: A user (as a tenant) can book multiple properties, but each booking is associated with one user.
- Cardinality: One to Many (from User to Booking)

## **Property to Booking:**

- Relationship Name: "Is Booked As"
- Description: A property can have multiple bookings over time, but each booking is associated with a single property.
- Cardinality: One to Many (from Property to Booking)

## **Booking to Payment:**

- Relationship Name: "Generates"
- Description: Each booking can generate multiple payments, especially if there's a system of installments or split payments.
- Cardinality: One to Many (from Booking to Payment)

## **Property to Review:**

- Relationship Name: "Receives"
- Description: A property can receive multiple reviews, but each review is specific to a single property.
- Cardinality: One to Many (from Property to Review)

#### User to Review:

- Relationship Name: "Writes"
- Description: A user can write multiple reviews, but each review is written by a single user
- Cardinality: One to Many (from User to Review)

## Property to Issue (Repair):

- Relationship Name: "Has"
- Description: A property can have multiple issues reported, but each issue is associated with a single property.
- Cardinality: One to Many (from Property to Issue)

## User to Issue (Repair):

• Relationship Name: "Reports"

- Description: A user can report multiple issues across different properties, but each issue report is made by a single user.
- Cardinality: One to Many (from User to Issue)

## User to Message (as a Sender):

- Relationship Name: "Sends"
- Description: A user can send messages to multiple users.
- Cardinality: One to Many (from one User to many Messages)

## User to Message (as a Receiver):

- Relationship Name: "Receives"
- Description: A user can receive messages from multiple users.
- Cardinality: One to Many (from one User to many Messages)

## **User to Notification:**

- Relationship Name: "Receives Notification"
- Description: A user can receive multiple notifications.
- Cardinality: One to Many (from User to Notification)

## **User to Wishlist:**

- Relationship Name: "Creates Wishlist"
- Description: A user can have multiple items in their wishlist.
- Cardinality: One to Many (from User to Wishlist)

## **Property to Wishlist:**

- Relationship Name: "Is Wished For"
- Description: A property can be on the wishlist of multiple users.
- Cardinality: One to Many (from Property to Wishlist)

## **User to Loyalty Program:**

- Relationship Name: "Participates In"
- Description: A user can participate in the loyalty program.
- Cardinality: One to One (assuming each user has one loyalty program record)

## **Property to Safety:**

- Relationship Name: "Has Safety Features"
- Description: Each property can have a record of its safety features.
- Cardinality: One to One (each property to its safety record)

#### User to Marketplace Items:

- Relationship Name: "Lists Item"
- Description: A user can list multiple items in the marketplace.
- Cardinality: One to Many (from User to Marketplace Items)

#### **Property to Insurance:**

- Relationship Name: "Is Insured By"
- Description: Each property can have an associated insurance policy.
- Cardinality: One to One (each property to its insurance record)

## **User to Insurance (as a Tenant):**

• Relationship Name: "Purchases Insurance"

- Description: A tenant can purchase multiple insurance policies (especially if they book multiple properties).
- Cardinality: One to Many (from User to Insurance policies)

# **Model Design**

```
enum UserType {
  Owner
  Renter
}
enum PropertyStatus {
  Available
  Booked
  UnderMaintenance
}
enum BookingStatus {
  Confirmed
  Pending
  Cancelled
}
enum PaymentStatus {
  Completed
  Pending
  Failed
```

}

```
enum MessageCategory {
  Inquiry
  BookingRelated
  IssueRelated
}
enum NotificationType {
  Booking
  Cancellation
  Offers
}
enum NotificationPlatform {
  Email
  SMS
  App
}
enum PriorityLevel {
  Low
  Medium
  High
}
model User {
  id
                        Int
                                                @id @default(autoincrement())
  firstName
                        String
  lastName
                        String
  email
                        String
                                                @unique
  password
                        String
  phone
                        String
  profilePic
                        String?
```

```
@default(Renter)
  userType
                        UserType
  preferredPropertyType String?
  preferredAmenities
                        String[]
  preferredLocation
                        String?
  searchHistory
                        String[]
  socialMediaLinks
                        String[]
  userStatus
                        String?
                        Property[]
  properties
  bookings
                        Booking[]
                        Review[]
  reviews
                        Issue[]
  issues
  messagesSent
                        Message[]
                                                @relation("MessagesSent")
  messagesReceived
                        Message[]
                                                @relation("MessagesReceived")
  notifications
                        Notification[]
  wishlists
                        Wishlist[]
  loyaltyPrograms
                        LoyaltyProgram[]
  marketplaceItems
                        Marketplace[]
  insurances
                        Insurance[]
}
model Property {
  id
                         Int
                                        @id @default(autoincrement())
  ownerId
                         Int
  address
                         String
  description
                         String
  numOfRooms
                         Int
  amenities
                         String[]
  rules
                         String[]
  pricing
                         Float
  imageGallery
                         String[]
  availabilityCalendar
                         DateTime[]
  propertyStatus
                         PropertyStatus
```

```
videoLink
                         String?
                         String[]
  propertyTags
  floorPlans
                         String?
                                        @relation(fields: [ownerId], references: [id])
  owner
                         User
                         Booking[]
  bookings
  reviews
                         Review[]
                         Issue[]
  issues
                         Safety?
  safetyRecord
  insurance
                         Insurance?
}
model Booking {
                               @id @default(autoincrement())
  id
                Int
  tenantId
                Int
  propertyId
                Int
  startDate
                DateTime
  endDate
                DateTime
  bookingStatus BookingStatus
  specialRequests String?
  payment
                Payment?
                               @relation(fields: [tenantId], references: [id])
  tenant
                User
                               @relation(fields: [propertyId], references: [id])
  property
                Property
}
model Payment {
                                    @id @default(autoincrement())
  id
                     Int
  bookingId
                     Int
                     Float
  amount
  paymentMethod
                     String
  paymentStatus
                     PaymentStatus
  paymentDate
                     DateTime
  securityDeposit
                     Float?
```

```
@relation(fields: [bookingId], references: [id])
  booking
                     Booking
}
model Review {
  id
                    Int
                              @id @default(autoincrement())
  propertyId
                    Int
  tenantId
                    Int
  rating
                    Int
  comments
                    String
  reviewDate
                    DateTime
  responseFromOwner String?
  reviewPhotos
                    String[]
                    Property @relation(fields: [propertyId], references: [id])
  property
  tenant
                              @relation(fields: [tenantId], references: [id])
                    User
}
model Issue {
  id
                  Int
                                @id @default(autoincrement())
  propertyId
                  Int
  tenantId
                  Int
  description
                  String
  issueStatus
                  String
                  DateTime
  reportDate
  priorityLevel
                  PriorityLevel
                                @relation(fields: [propertyId], references: [id])
  property
                  Property
  tenant
                  User
                                @relation(fields: [tenantId], references: [id])
}
model Message {
  id
                         @id @default(autoincrement())
                 Int
  senderId
                 Int
```

```
receiverId
                 Int
  content
                 String
  timestamp
                 DateTime
                 MessageCategory
  category
                         @relation("MessagesSent", fields: [senderId], references:
  sender
                 User
[id])
                         @relation("MessagesReceived", fields: [receiverId],
  receiver
                 User
references: [id])
}
model Notification {
  id
                  Int
                                      @id @default(autoincrement())
  userId
                  Int
  content
                  String
                  DateTime
  timestamp
                  NotificationType
  type
  platform
                  NotificationPlatform
                                      @relation(fields: [userId], references: [id])
  user
                  User
}
model Wishlist {
  id
                            @id @default(autoincrement())
                  Int
  userId
                  Int
  propertyId
                  Int
  dateAdded
                  DateTime
                            @relation(fields: [userId], references: [id])
  user
                  User
  property
                  Property @relation(fields: [propertyId], references: [id])
}
model LoyaltyProgram {
  id
                            @id @default(autoincrement())
                  Int
  userId
                  Int
```

```
points
                  Int
  redemptionHistory String[]
                            @relation(fields: [userId], references: [id])
  user
                  User
}
model LocalServicesAttractions {
  id
                   Int
                           @id @default(autoincrement())
  location
                   String
  serviceType
                   String
  description
                   String
  contactDetails
                   String
  operatingHours
                   String
}
model Safety {
  id
                   Int
                           @id @default(autoincrement())
  propertyId
                   Int
  safetyAmenities String[]
  safetyScore
                   String
  property
                   Property @relation(fields: [propertyId], references: [id])
}
model Marketplace {
  id
                   Int
                           @id @default(autoincrement())
  ownerId
                   Int
  itemDescription String
  price
                   Float
  category
                   String
                           @relation(fields: [ownerId], references: [id])
  owner
                   User
}
model Insurance {
```

```
id
                  Int
                          @id @default(autoincrement())
 propertyId
                  Int
 tenantId
                  Int
 policyDetails
                  String
 coverageAmount
                 Float
 expiryDate
                  DateTime
                  Property @relation(fields: [propertyId], references: [id])
 property
 tenant
                            @relation(fields: [tenantId], references: [id])
                  User
}
```

# Api end-points

# **User Endpoints:**

## Registration:

- POST http://localhost:5000/api/v1/user/users: Register a new user
- Login:
  - POST http://localhost:5000/api/v1/user/login: User login

#### **User Details:**

GET http://localhost:5000/api/v1/user/users/{id}: Get user details by ID

### **Update User:**

• PUT http://localhost:5000/api/v1/user/users/{id}: Update user details

#### **Delete User:**

• DELETE http://localhost:5000/api/v1/user/users/{id}: Delete a user

# **Property Endpoints:**

#### Add Property:

POST http://localhost:5000/api/v1/property/properties: Add a new property

#### **Get All Properties:**

GET http://localhost:5000/api/v1/property/properties: Get all properties

## **Property Details:**

• GET http://localhost:5000/api/v1/property/properties/{id}: Get property details by ID

## **Update Property:**

• PUT http://localhost:5000/api/v1/property/properties/{id}: Update property details

## **Delete Property:**

DELETE http://localhost:5000/api/v1/property/properties/{id}: Delete a property

# **Booking Endpoints:**

### Create a Booking:

POST http://localhost:5000/api/v1/booking/bookings: Create a new booking

## **Get Booking Details:**

GET http://localhost:5000/api/v1/booking/bookings/{id}: Get booking details by ID

#### Get Bookings for a User:

GET http://localhost:5000/api/v1/user/users/{id}/bookings: Get bookings for a specific user

## **Update Booking:**

PUT http://localhost:5000/api/v1/booking/bookings/{id}: Update a booking

#### Cancel Booking:

DELETE http://localhost:5000/api/v1/booking/bookings/{id}: Cancel a booking

# **Payment Endpoints:**

## **Make Payment:**

POST http://localhost:5000/api/v1/payment/payments: Make a new payment

#### **Get Payment Details:**

• GET http://localhost:5000/api/v1/payment/payments/{id}: Get payment details by ID

#### Payments for a Booking:

 GET http://localhost:5000/api/v1/booking/bookings/{id}/payments: Get payments for a specific booking

# **Review Endpoints:**

#### Add a Review:

POST http://localhost:5000/api/v1/review/reviews: Add a review for a property

## Get Reviews for a Property:

 GET http://localhost:5000/api/v1/property/properties/{id}/reviews: Get all reviews for a specific property

# Issue (Repair) Endpoints:

#### Report an Issue:

POST http://localhost:5000/api/v1/issue/issues: Report an issue for a property

#### **Get Issue Details:**

• GET http://localhost:5000/api/v1/issue/issues/{id}: Get issue details by ID

#### **Update an Issue:**

PUT http://localhost:5000/api/v1/issue/issues/{id}: Update an issue (e.g., status change)

# **Message Endpoints:**

### Send a Message:

POST http://localhost:5000/api/v1/message/messages: Send a message

### **Get Messages for a User:**

 GET http://localhost:5000/api/v1/user/users/{id}/messages: Get all messages for a specific user

# **Notification Endpoints:**

#### **Create a Notification:**

 POST http://localhost:5000/api/v1/notification/notifications: Create a new notification for a user

#### **Get Notifications for a User:**

 GET http://localhost:5000/api/v1/user/users/{id}/notifications: Fetch all notifications for a specific user

#### **Delete a Notification:**

 DELETE http://localhost:5000/api/v1/notification/notifications/{id}: Remove a specific notification

# **Wishlist Endpoints:**

## Add Property to Wishlist:

POST http://localhost:5000/api/v1/wishlist/items: Add a property to a user's wishlist

#### **View User Wishlist:**

 GET http://localhost:5000/api/v1/user/users/{id}/wishlist: Get all properties in a user's wishlist

#### **Remove Property from Wishlist:**

 DELETE http://localhost:5000/api/v1/wishlist/items/{id}: Remove a specific property from the wishlist

# **Loyalty Program Endpoints:**

## Join Loyalty Program:

• POST http://localhost:5000/api/v1/loyalty/enroll: Enroll a user in the loyalty program

## **Get User Loyalty Points:**

 GET http://localhost:5000/api/v1/user/users/{id}/loyalty: Fetch loyalty points and redemption history for a user

#### **Redeem Loyalty Points:**

 POST http://localhost:5000/api/v1/loyalty/redeem: Redeem points for rewards or discounts

# **Local Services & Attractions Endpoints:**

#### **List a Local Service/Attraction:**

POST http://localhost:5000/api/v1/services/list: List a new local service or attraction

### **Get Services & Attractions by Location:**

 GET http://localhost:5000/api/v1/services?location={location}: Fetch services and attractions based on a location

# **Safety Endpoints:**

### Add Safety Record for Property:

 POST http://localhost:5000/api/v1/safety/records: Add a safety record for a specific property

## **Fetch Safety Records for Property:**

 GET http://localhost:5000/api/v1/property/properties/{id}/safety: Get safety records for a property

# **Marketplace Endpoints:**

## List an Item in Marketplace:

 POST http://localhost:5000/api/v1/marketplace/list: List an item or service in the marketplace

## **Browse Marketplace by Category:**

• GET http://localhost:5000/api/v1/marketplace?category={category}: View items in the marketplace by category

# **Insurance Endpoints:**

#### **Purchase Insurance:**

 POST http://localhost:5000/api/v1/insurance/purchase: Buy insurance for a property booking

#### **View Insurance Policies for User:**

 GET http://localhost:5000/api/v1/user/users/{id}/insurance: View all insurance policies bought by a user

# **Login Endpoint:**

## **User Login:**

POST http://localhost:5000/api/v1/user/login: User login

## **JSON DATA:**

# **User Endpoints**

```
1. Register User
POST /api/v1/user/users
{
```

```
"firstName": "John",
        "lastName": "Doe",
        "email": "john.doe@example.com",
        "password": "securePassword123",
        "phone": "123-456-7890",
        "profilePic": "link to profile pic.jpg",
        "userType": "Renter",
        "preferredPropertyType": "Apartment",
        "preferredAmenities": ["WiFi", "Swimming Pool"],
        "preferredLocation": "Downtown",
        "searchHistory": ["Property1", "Property2"],
        "socialMediaLinks": ["facebook link", "twitter link"],
        "userStatus": "Verified"
      }
2. User Login
POST /api/v1/user/login
        "email": "john.doe@example.com",
        "password": "securePassword123"
```

# **Property Endpoints**

POST /api/v1/property/properties

```
"ownerID": 1,

"address": "123 Main St, City, Country",

"description": "A beautiful 2-bedroom apartment in the city center.",

"numberOfRooms": 3,

"amenities": ["WiFi", "Swimming Pool", "Parking"],

"rules": "No smoking. No pets.",

"pricing": 1200,

"availabilityCalendar": {

"Jan": ["1", "2", "5-20"],

"Feb": ["1-10"]

},

"propertyStatus": "Available",

"videoLink": "link_to_video.mp4",
```

```
"propertyTags": ["sea-view", "family-friendly"],
"floorPlans": "link_to_floorplan.jpg"
}
```

# **Booking Endpoints**

```
POST /api/v1/booking/bookings
```

```
{
  "tenantID": 1,
  "propertyID": 2,
  "startDate": "2023-11-01",
  "endDate": "2023-11-10",
  "bookingStatus": "Confirmed",
  "specialRequests": "Need an extra bed"
}
```

# **Payment Endpoints**

```
POST /api/v1/payment/payments
{
    "bookingID": 3,
    "amount": 1200,
    "paymentMethod": "Credit Card",
    "paymentStatus": "Paid",
    "paymentDate": "2023-10-15",
    "securityDepositAmount": 200
}
```

# **Review Endpoints**

POST /api/v1/review/reviews

```
{
  "propertyID": 2,
  "tenantID": 1,
  "rating": 4,
  "comments": "Great place. Loved the amenities.",
  "responseFromOwner": "Thank you for your feedback!"
```

# Issue (Refair) Endpoints

```
POST /api/v1/issue/issues
```

```
{
  "propertyID": 2,
  "tenantID": 1,
  "issueDescription": "The kitchen sink is leaking.",
  "issueStatus": "Reported",
  "reportDate": "2023-11-05",
  "priorityLevel": "Medium"
}
```

# **Message Endpoints**

POST /api/v1/message/messages

```
{
  "senderID": 1,
  "receiverID": 2,
  "content": "Hi, I'd like to inquire about the availability in December.",
  "timestamp": "2023-10-15 14:32:15",
  "messageCategory": "Inquiry"
}
```

# **Notification Endpoints**

```
POST /api/v1/notification/notifications
{
    "userID": 1,
    "content": "Your booking for Property 2 has been confirmed!",
    "timestamp": "2023-10-15 15:10:05",
    "notificationType": "Booking Confirmation",
    "notificationPlatform": "Email"
}
```

# **Wishlist Endpoints**

POST /api/v1/wishlist/wishlists

```
{
    "userID": 1,
    "propertyID": 3,
    "dateAdded": "2023-10-12"
}
```

# Loyalty Program Endpoints

POST /api/v1/loyalty/loyalties

```
{
  "userID": 1,
  "points": 150,
  "redemptionHistory": [{
    "date": "2023-10-01",
    "pointsRedeemed": 50,
    "reward": "10% Discount"
  }]
}
```

# Local Services & Attractions Endpoints

```
POST /api/v1/localServices/services
{
    "location": "Near Property 2",
    "serviceType": "Restaurant",
    "description": "A quaint little Italian place with a wood-fired pizza oven.",
    "contactDetails": "123-456-7890",
    "operatingHours": "10am - 10pm"
}
```

# Safety Endpoints

POST /api/v1/safety/safeties

{

```
"propertyID": 2,
"safetyAmenities": ["Fire extinguisher", "Smoke alarm", "First Aid Kit"],
"safetyScore": 8.5
```

# Marketplace Endpoints

```
POST /api/v1/marketplace/items
{
    "ownerID": 1,
    "itemDescription": "Mountain bike for rent",
    "price": 15,
    "category": "Outdoor Equipment"
}
```

# **Insurance Endpoints**

POST /api/v1/insurance/policies

```
{
  "propertyID": 2,
  "tenantID": 1,
  "policyDetails": "Comprehensive coverage including damage, theft, and natural
disasters.",
  "coverageAmount": 50000,
  "expiryDate": "2024-10-15"
}
```