💻 React Admin Dashboard - API Integration Guide

Target Audience: Web Frontend Team
Base URL (Staging): `https://driversklub-backend.onrender.com`
Base URL (Development): `http://localhost:3000` (API Gateway)
Base URL (Production): AWS Elastic Beanstalk `driversklub-backend-env`
Auth: Requires `Authorization: Bearer <TOKEN>` with Role `SUPER_ADMIN`, `OPERATIONS`, or `MANAGER`
Version: 4.5.0 (MMT Integration Complete)
Last Updated: January 23, 2026
Last Verified: January 23, 2026

What's New in v4.5.0

- **MMT Integration Complete** - Full inbound + outbound tracking
  - Inbound: search, block, paid, cancel, reschedule
  - Outbound: assign, reassign, unassign, start, arrived, boarded, alight, not-boarded, location
  - Automatic `providerBookingId` storage from MMT paid endpoint
- **FLEET_ADMIN Role** - Fleet-level administration with scoped access
- **Public Booking API** - Customers can book trips without auth
- **Referral System** - Driver referral tracking and rewards
- **Enhanced KYC** - Full driver/vehicle document management

> ***Note:*** *All requests route through the API Gateway to 6 microservices. The gateway handles authentication and routing automatically.*

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1. Authentication

1.1 Admin Login Flow

Same as driver authentication but requires `SUPER_ADMIN` or `OPERATIONS` role.

Endpoint: `POST /auth/verify-otp`

Response:

```
{
  "success": true,
  "data": {
    "accessToken": "eyJ...",
    "refreshToken": "def...",
    "user": {
      "id": "uuid",
      "role": "SUPER_ADMIN"
    }
  }
}
```

Action: Check `user.role`. Redirect to dashboard based on role permissions.

Allowed Admin Roles:

- `SUPER_ADMIN` - Full system access (all fleets)
- `FLEET_ADMIN` - Fleet-level admin (scoped to their fleet)
- `OPERATIONS` - Operations team access
- `MANAGER` - Hub/Fleet manager access

Token Expiry:

- **Access Token:** 15 minutes (all clients)
- **Refresh Token:** 1 day (web clients default)

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2. Dispatch & Trip Operations

2.1 Create New Trip

Endpoint: `POST /trips`
Roles: `SUPER_ADMIN`, `OPERATIONS`

Request Body:

```
{
  "tripType": "AIRPORT",
  "originCity": "Delhi",
  "destinationCity": "Gurgaon",
  "pickupLocation": "T3 Terminal, Gate 4",
  "pickupLat": 28.5562,
  "pickupLng": 77.1000,
  "dropLocation": "Cyber Hub, Gurgaon",
  "pickupTime": "2025-12-25T10:00:00Z",
  "vehicleSku": "EV_SEDAN",
  "distanceKm": 45
}
```

> *[!IMPORTANT]* ***Strict Trip Constraints:***

> - ***Start Window:*** *Driver can only start trip* ***2.5 Hours*** *before pickup*
> - ***Geofence:*** `pickupLat` *&* `pickupLng` *are* ***MANDATORY*** *for the app to allow "Arrived" status (500m radius)*
> - ***T-1 Constraint:*** `pickupTime` *must be > 24 hours from now*

Response (201):

```
{
  "success": true,
  "data": {
    "id": "uuid",
    "status": "CREATED",
    "price": 1200,
    "tripType": "AIRPORT",
    "pickupTime": "2025-12-25T10:00:00Z"
  }
}
```

2.2 List All Trips (Grid View)

Endpoint: `GET /admin/trips`
Role: `SUPER_ADMIN`

Query Params:

- `page` (default: 1)
- `limit` (default: 10)
- `status` (optional): Filter by status (e.g., `CREATED`, `DRIVER_ASSIGNED`, `STARTED`)

Response (200):

```
{
  "success": true,
  "data": {
    "trips": [
      {
        "id": "uuid",
        "tripType": "AIRPORT",
        "pickupLocation": "T3 Terminal",
        "dropLocation": "Cyber Hub",
        "pickupTime": "2025-12-25T10:00:00Z",
        "status": "CREATED",
        "price": 1200,
        "driver": null,
        "customerPhone": "9876543210",
        "providerMapping": {
          "providerType": "MMT",
          "externalBookingId": "MMT-123"
        }
      }
    ],
    "total": 150,
    "page": 1,
```

```
    "limit": 10
  }
}
```

3.2 Assign Driver (Dispatch)

Endpoint: `POST /admin/trips/assign` **Role:** `OPERATIONS`, `MANAGER`

Request Body:

```
{
  "tripId": "uuid-trip-id",
  "driverId": "uuid-driver-id"
}
```

Response (201):

```
{
  "success": true,
  "message": "Driver assigned successfully",
  "data": {
    "assignment": {
      "id": "uuid",
      "status": "ASSIGNED",
      "tripId": "uuid-trip-id",
      "driverId": "uuid-driver-id"
    }
  }
}
```

3.3 Reassign Driver

Endpoint: `POST /admin/trips/reassign` **Role:** `OPERATIONS`, `MANAGER`

Use Case: Switch driver for an already assigned trip (before or during trip). **Logic:** Atomically unassigns current driver and assigns new driver.

Request Body:

```
{
  "tripId": "uuid-trip-id",
  "driverId": "uuid-new-driver-id"
}
```

Response (200):

```
{
  "success": true,
  "message": "Driver reassigned successfully",
  "data": {
    "assignment": {
      "id": "uuid-new-assignment",
      "status": "ASSIGNED"
    }
  }
}
```

3.4 Unassign Driver (Detach)

Endpoint: `POST /admin/trips/unassign` **Role:** `OPERATIONS`, `MANAGER`

Use Case: Remove driver from trip without assigning a new one immediately. **Logic:**

- Reverts trip status to `CREATED`
- Triggers `unassign` webhook to MMT (if applicable)
- Supports detaching even if trip status is `STARTED` (useful for breakdown scenarios)

Request Body:

```
{
  "tripId": "uuid-trip-id"
}
```

Response (200):

```
{
  "success": true,
  "message": "Driver unassigned successfully"
}
```

Side Effects:

- Status: Reverts to `CREATED` (trip available for re-dispatch)
- Driver marked as `isAvailable: true`
- Assignment status updated to `UNASSIGNED`
- **If MMT Trip**: Calls `POST /dispatch/{booking_id}/detach` to MMT

Allowed Trip Statuses:

- `CREATED` - Trip not yet assigned (no-op)
- `DRIVER_ASSIGNED` - Driver assigned but hasn't started
- `STARTED` - Driver started trip but customer hasn't boarded yet

> *[!WARNING] Cannot detach after passenger has boarded (`BOARDED` status) or trip is completed/cancelled.*

2.5 Reassign Driver

Endpoint: `POST /admin/trips/reassign`
Role: `SUPER_ADMIN`
Description: Change assigned driver (e.g., when driver cancels or car breaks down)

Request Body:

```
{
  "tripId": "uuid",
  "driverId": "uuid-new-driver"
}
```

Response (200):

```
{
  "success": true,
  "message": "Driver reassigned successfully"
}
```

Side Effects:

- **If MMT Trip**: Calls `POST /dispatch/{booking_id}/reassign` to MMT with new driver & vehicle details

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2.6 Partner Bookings (MMT)

Identification: Trips originating from MakeMyTrip will have:

- `provider` : `"MMT"`
- `providerBookingId` : `"BKS88888800926"` (MMT's booking ID used for all tracking)
- `providerMapping.externalBookingId` : Same as above
- `providerMeta.otp` : OTP for passenger verification

```
{
  "provider": "MMT",
  "providerBookingId": "BKS88888800926",
  "providerMapping": {
    "providerType": "MMT",
    "externalBookingId": "BKS88888800926",
    "providerStatus": "CONFIRMED"
  },
  "providerMeta": {
    "otp": "1056"
  }
}
```

MMT Tracking Events (Automatic):

When you perform admin actions, the system automatically sends tracking events to MMT:

Admin Action	MMT API Called	Endpoint
Assign Driver	`POST /dispatch/{booking_id}/assign`	Sends driver + vehicle details
Reassign Driver	`POST /dispatch/{booking_id}/reassign`	Sends new driver + vehicle
Unassign Driver	`POST /dispatch/{booking_id}/unassign`	Removes driver from booking

Driver App Actions → MMT:

Driver Action	MMT API Called
Start Trip	`POST /track/{booking_id}/start`
Arrived	`POST /track/{booking_id}/arrived`
Onboard (OTP verified)	`POST /track/{booking_id}/boarded`
Complete Trip	`POST /track/{booking_id}/alight`
No Show	`POST /track/{booking_id}/not-boarded`
Location Update	`PUT /track/{booking_id}/location` (every 30s)

Operational Rules:

1. **Priority Assignment**: MMT trips should be assigned promptly as they have SLA requirements.
2. **Cancellation**: Unassigning triggers `/dispatch/{booking_id}/unassign` webhook to MMT.
3. **Reassignment**: Triggers `/dispatch/{booking_id}/reassign` webhook with new driver details.
4. **Vehicle Required**: Driver must have an assigned vehicle before being assigned to MMT trips.

Environment Variables for MMT:

```
# Inbound (MMT → DriversKlub)
MMT_INBOUND_USERNAME=mmt_inbound_service
MMT_INBOUND_PASSWORD=your_secure_password

# Outbound (DriversKlub → MMT)
MMT_TRACKING_URL=https://cabs-partners-staging.makemytrip.com/tracking/pp2/api/partner/v1
MMT_TRACKING_USER=your_mmt_tracking_username
MMT_TRACKING_PASS=your_mmt_tracking_password
```

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3. Fleet & Asset Management

3.1 Fleets (Operators)

> *[!TIP]* ***Rapido Integration:*** *Rapido Captains are managed as a Fleet. Their status is synced automatically.*

Create Fleet

Endpoint: `POST /fleets`
Role: `SUPER_ADMIN`

Request Body:

```
{
  "name": "Delhi Cabs Pvt Ltd",
  "mobile": "9999988888",
  "city": "DELHI",
  "fleetType": "COMPANY",
  "panNumber": "ABCDE1234F"
}
```

Response (201):

```
{
  "success": true,
  "data": {
    "id": "uuid",
    "name": "Delhi Cabs Pvt Ltd",
    "city": "DELHI"
  }
}
```

List Fleets

Endpoint: `GET /fleets`
Roles: `SUPER_ADMIN` , `OPERATIONS`

Response (200):

```
{
  "success": true,
  "data": [
    {
      "id": "uuid",
      "name": "Delhi Cabs Pvt Ltd",
      "city": "DELHI",
      "fleetType": "COMPANY",
      "status": "ACTIVE"
    }
  ]
}
```

Get Fleet Details

3.1.1 Hub Management

Manage Hubs

Create Hub: `POST /fleets/:id/hubs` **List Hubs:** `GET /fleets/:id/hubs` **Get Hub Details:** `GET /fleets/hubs/:id`

Manage Hub Managers

> ***Note:*** *Hub Managers are regular Users with role* `MANAGER` *and a linked* `fleetId`.

Create Manager: `POST /fleets/:id/hub-managers` (Creates User with role MANAGER) **List Managers:** `GET /fleets/:id/hub-managers` **Assign Manager:** `POST /fleets/hubs/:hubId/assign-manager`

Fleet Resources (Hub Context)

Add Vehicle to Hub: `POST /fleets/hubs/:id/add-vehicle` **Remove Vehicle from Hub:** `POST /fleets/hubs/:id/remove-vehicle` **Add Driver to Hub:** `POST /fleets/hubs/:id/add-driver` **Remove Driver from Hub:** `POST /fleets/hubs/:id/remove-driver`

3.2 Vehicles (Cars)

Add Vehicle

Endpoint: `POST /vehicles`
Roles: `SUPER_ADMIN`, `OPERATIONS`

Request Body:

```
{
  "fleetId": "uuid-fleet-id",
  "vehicleNumber": "DL10CA1234",
  "vehicleName": "Tata Tigor EV",
  "fuelType": "ELECTRIC",
  "ownership": "OWNED"
}
```

Response (201):

```
{
  "success": true,
  "data": {
    "id": "uuid",
    "vehicleNumber": "DL10CA1234",
    "vehicleName": "Tata Tigor EV"
  }
}
```

List Vehicles by Fleet

Endpoint: `GET /vehicles/fleet/:fleetId`
Roles: `SUPER_ADMIN`, `OPERATIONS`, `MANAGER`

Response (200):

```
{
  "success": true,
  "data": [
    {
      "id": "uuid",
      "vehicleNumber": "DL10CA1234",
      "vehicleName": "Tata Tigor EV",
      "fuelType": "ELECTRIC",
      "status": "ACTIVE"
    }
  ]
}
```

Update Vehicle Documents

Endpoint: `PATCH /vehicles/:id/docs`
Roles: `SUPER_ADMIN` , `OPERATIONS`

Request Body:

```
{
  "rcUrl": "https://s3.aws.com/rc.pdf",
  "insuranceUrl": "https://s3.aws.com/insurance.pdf"
}
```

Update Vehicle Status

Endpoint: `PATCH /vehicles/:id/status`
Roles: `SUPER_ADMIN` , `OPERATIONS`

Request Body:

```
{
  "status": "ACTIVE"
}
```

Status Values:

- `ACTIVE` - Vehicle is operational
- `INACTIVE` - Vehicle temporarily unavailable
- `MAINTENANCE` - Vehicle under maintenance

Deactivate Vehicle

Endpoint: `PATCH /vehicles/:id/deactivate`
Roles: `SUPER_ADMIN` , `OPERATIONS`

3.3 Drivers (Profiles)

Onboard Driver

Endpoint: `POST /drivers`
Roles: `SUPER_ADMIN` , `OPERATIONS`

Request Body:

```
{
  "fleetId": "uuid-fleet-id",
  "firstName": "Raj",
  "lastName": "Kumar",
  "mobile": "9812345678",
  "email": "raj@example.com",
  "licenseNumber": "DL-12345-67890"
}
```

Response (201):

```
{
  "success": true,
  "data": {
    "id": "uuid",
    "firstName": "Raj",
    "lastName": "Kumar",
    "mobile": "9812345678"
  }
}
```

Update Driver (Full KYC)

Endpoint: `PATCH /drivers/:id`
Roles: `SUPER_ADMIN` , `OPERATIONS` , `MANAGER`

Request Body (All fields optional):

```
{
  "firstName": "Raj",
  "lastName": "Kumar",
  "mobile": "9812345678",
  "email": "raj@example.com",
  "dob": "1990-05-15T00:00:00.000Z",
  "address": "123 Main Street",
  "city": "Delhi",
  "pincode": "110001",

  "aadharNumber": "123456789012",
  "driverAgreement": "https://s3.aws.com/agreement.pdf",
  "policeVerification": "https://s3.aws.com/pcv.jpg",
  "currentAddressProof": "https://s3.aws.com/current.jpg",
  "permanentAddressProof": "https://s3.aws.com/permanent.jpg",
  "panNumber": "ABCDE1234F",
```

```
  "dlNumber": "DL-12345-67890",
  "gstNumber": "22AAAAA0000A1Z5",

  "bankAccountNumber": "1234567890123456",
  "bankIfscCode": "HDFC0001234",
  "bankAccountName": "Raj Kumar",

  "licenseFront": "https://s3.aws.com/license-front.jpg",
  "licenseBack": "https://s3.aws.com/license-back.jpg",
  "aadharFront": "https://s3.aws.com/aadhaar-front.jpg",
  "aadharBack": "https://s3.aws.com/aadhaar-back.jpg",
  "panCardImage": "https://s3.aws.com/pan.jpg",
  "bankIdProof": "https://s3.aws.com/bank-proof.jpg",

  "rcFrontImage": "https://s3.aws.com/rc-front.jpg",
  "rcBackImage": "https://s3.aws.com/rc-back.jpg",
  "fitnessImage": "https://s3.aws.com/fitness.jpg",
  "fitnessExpiry": "2026-12-31",
  "insuranceImage": "https://s3.aws.com/insurance.jpg",
  "insuranceStart": "2024-01-01",
  "insuranceExpiry": "2025-12-31",
  "chassisNumber": "MA1AB2CD3EF456789",
  "vinNumber": "1HGBH41JXMN109186"
}
```

Field Categories:

Category	Fields	Description
Basic Info	`firstName`, `lastName`, `mobile`, `email`, `dob`, `address`, `city`, `pincode`	Personal details
KYC Values	`aadharNumber`, `panNumber`, `dlNumber`, `gstNumber`	Document numbers
Bank Details	`bankAccountNumber`, `bankIfscCode`, `bankAccountName`	For payouts
KYC Attachments	`licenseFront`, `licenseBack`, `aadharFront`, `aadharBack`, `panCardImage`, `bankIdProof`	Document images (upload via S3)
Vehicle Docs	`rcFrontImage`, `rcBackImage`, `fitnessImage`, `fitnessExpiry`, `insuranceImage`, `insuranceStart`, `insuranceExpiry`, `chassisNumber`, `vinNumber`	Updated on driver's assigned vehicle

Note: Vehicle fields are only saved if the driver has an assigned vehicle.

List Drivers by Fleet

Endpoint: `GET /drivers/fleet/:fleetId`
Roles: `SUPER_ADMIN`, `OPERATIONS`, `MANAGER`

Response (200):

```
{
  "success": true,
```

```
  "data": [
    {
      "id": "uuid",
      "firstName": "Raj",
      "lastName": "Kumar",
      "mobile": "9812345678",
      "status": "ACTIVE",
      "kycStatus": "APPROVED"
    }
  ]
}
```

Get Driver Details

Endpoint: `GET /drivers/:id`
Roles: `SUPER_ADMIN`, `OPERATIONS`, `MANAGER`

3.4 Driver Operations (Status & Availability)

Update Status

Endpoint: `PATCH /drivers/:id/status` **Roles:** `SUPER_ADMIN`, `OPERATIONS`

Request Body:

```
{
  "status": "SUSPENDED"
}
```

Update Availability

Endpoint: `PATCH /drivers/:id/availability` **Roles:** `SUPER_ADMIN`, `OPERATIONS`, `MANAGER`

Request Body:

```
{
  "isAvailable": false
}
```

3.5 Image Upload Service (S3 Presigned URLs)

Endpoint: `GET /drivers/upload-url`
Roles: `SUPER_ADMIN`, `OPERATIONS`, `MANAGER`, `DRIVER`

Description: Generate secure presigned URLs for uploading images and documents directly to S3. This is used for driver documents, vehicle photos, and other assets.

Query Parameters:

- `folder` (required): `selfies`, `odometer`, `documents`, `profiles`, `vehicles`
- `fileType` (required): `jpg`, `jpeg`, `png`, `pdf`

Request Example:

```
GET /drivers/upload-url?folder=documents&fileType=pdf
Authorization: Bearer <ACCESS_TOKEN>
```

Response (200):

```
{
  "success": true,
  "data": {
    "uploadUrl": "https://s3.amazonaws.com/driversklub-assets/documents/uuid.pdf?X-
Amz-...",
    "key": "documents/uuid.pdf",
    "url": "https://driversklub-assets.s3.ap-south-1.amazonaws.com/documents/uuid.pdf"
  },
  "message": "Upload URL generated successfully"
}
```

Upload Flow:

1. **Request Upload URL**: Call this endpoint
2. **Upload File**: Send `PUT` request to `uploadUrl` with file as binary body
3. **Store URL**: Save the `url` field to database or send to other APIs

Example Upload (JavaScript/React):

```
// Step 1: Get presigned URL
const response = await fetch(
  `${baseUrl}/drivers/upload-url?folder=documents&fileType=pdf`,
  {
    headers: { 'Authorization': `Bearer ${token}` }
  }
);
const { data } = await response.json();

// Step 2: Upload file to S3
await fetch(data.uploadUrl, {
  method: 'PUT',
  body: file,
  headers: { 'Content-Type': 'application/pdf' }
});

// Step 3: Use the final URL
const documentUrl = data.url;
```

Use Cases:

- Upload driver license/Aadhaar during onboarding
- Upload vehicle RC/insurance documents
- Upload odometer photos during attendance

- Upload profile pictures

Note: Presigned URLs expire in 5 minutes.

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4. Operations & Assignments

4.1 Attendance Management

Approve Attendance

Endpoint: `POST /attendance/:id/approve` **Roles:** `SUPER_ADMIN`, `MANAGER`

Request Body:

```
{
  "remarks": "Approved by Ops"
}
```

Reject Attendance

Endpoint: `POST /attendance/:id/reject` **Roles:** `SUPER_ADMIN`, `MANAGER`

Get Attendance Details

Endpoint: `GET /attendance/:id` **Roles:** `SUPER_ADMIN`, `OPERATIONS`, `MANAGER`

4.2 Daily Vehicle Assignment (Roster)

Endpoint: `POST /assignments`
Roles: `SUPER_ADMIN`, `OPERATIONS`, `MANAGER`
Description: Link a driver to a car for the day

Request Body:

```
{
  "driverId": "uuid-driver",
  "vehicleId": "uuid-vehicle",
  "fleetId": "uuid-fleet"
}
```

Response (201):

```
{
  "success": true,
  "data": {
    "id": "uuid",
    "driverId": "uuid",
    "vehicleId": "uuid",
    "startDate": "2025-12-25T00:00:00Z"
```

```
    }
}
```

Goal: Driver cannot receive trips without this active link.

4.3 Get Assignments by Fleet

Endpoint: `GET /assignments/fleet/:fleetId`
Roles: `SUPER_ADMIN` , `OPERATIONS` , `MANAGER`

Response (200):


```
{
  "success": true,
  "data": [
    {
      "id": "uuid",
      "driver": {
        "firstName": "Raj",
        "lastName": "Kumar"
      },
      "vehicle": {
        "vehicleNumber": "DL10CA1234"
      },
      "startDate": "2025-12-25T00:00:00Z",
      "status": "ACTIVE"
    }
  ]
}
```

4.4 End Assignment

Endpoint: `PATCH /assignments/:id/end`
Roles: `SUPER_ADMIN` , `OPERATIONS` , `MANAGER`

4.5 Driver Preference Management

Get Pending Requests

Endpoint: `GET /drivers/preference/pending-requests`
Roles: `SUPER_ADMIN` , `OPERATIONS`

Response (200):


```
{
  "success": true,
  "statusCode": 200,
  "message": "Pending preference requests retrieved successfully",
  "data": [
```

```
    {
      "id": "bd3c2df9-d58d-4b5a-8d20-2ecd8db1b63e",
      "driverId": "ad8324ca-2dea-4618-ba5e-3095fa123d06",
      "currentPreference": {
        "accept_rentals": false,
        "prefer_airport_rides": false
      },
      "requestedPreference": {
        "accept_rentals": true,
        "prefer_airport_rides": true
      },
      "status": "PENDING",
      "requestAt": "2026-01-08T04:38:38.415Z"
    }
  ]
}
```


Update Request Status

Endpoint: `POST /drivers/preference/update-status`
Roles: `SUPER_ADMIN` , `OPERATIONS`

Request Body (Approve):


```
{
  "id": "bd3c2df9-d58d-4b5a-8d20-2ecd8db1b63e",
  "status": "APPROVED"
}
```


Request Body (Reject):


```
{
  "id": "bd3c2df9-d58d-4b5a-8d20-2ecd8db1b63e",
  "status": "REJECTED",
  "rejection_reason": "demo test"
}
```


---

5. User Management

5.1 Create User

Endpoint: `POST /users`
Role: `SUPER_ADMIN`

Request Body:

```
{
  "phone": "9876543210",
  "role": "DRIVER",
  "name": "Raj Kumar"
}
```

Roles: `SUPER_ADMIN`, `OPERATIONS`, `MANAGER`, `DRIVER`

5.2 List All Users

Endpoint: `GET /users`
Roles: `SUPER_ADMIN`, `OPERATIONS`

5.3 Deactivate User

Endpoint: `PATCH /users/:id/deactivate`
Role: `SUPER_ADMIN`

---

6. Pricing Calculator

6.1 Preview Pricing

Endpoint: `POST /pricing/preview`
Auth Required: Yes
Description: "Get Estimate" button on Create Trip form. Uses client-provided distance to calculate fare.

Request Body:

```
{
  "pickup": "Connaught Place, New Delhi",
  "drop": "Cyber City, Gurgaon",
  "tripType": "INTER_CITY",
  "tripDate": "2024-05-20T10:00:00.000Z",
  "bookingDate": "2024-05-19T10:00:00.000Z",

  // Vehicle specification (choose one):
  "vehicleType": "EV",              // Direct type
  "vehicleSku": "TATA_TIGOR_EV",    // Or use SKU (auto-detected)

  "distanceKm": 25.5  // Optional: Fallback if Google Maps fails
}
```

Response (200):

```
{
  "success": true,
  "data": {
    "distanceSource": "GOOGLE_MAPS", // or "CLIENT_PROVIDED"
    "billableDistanceKm": 25.5,
    "ratePerKm": 25,
    "baseFare": 637.5,
    "totalFare": 765,
    "breakdown": {
      "distanceFare": 637.5,
      "tripTypeMultiplier": 1.2,
      "bookingTimeMultiplier": 1.0,
      "vehicleMultiplier": 1.0
    },
    "currency": "INR"
  },
  "message": "Fare calculated successfully"
}
```

> *[!NOTE] **Distance Calculation:** The admin dashboard (or client app) should calculate the distance using Google Maps, Mapbox, or similar service before calling this API. The backend pricing engine uses the `distanceKm` value provided in the request to calculate the fare.*

7. Payment & Financial Management

7.1 Create Rental Plan

Endpoint: `POST /payments/admin/rental-plans`
Roles: `SUPER_ADMIN` , `OPERATIONS`

Request Body:

```
{
  "fleetId": "uuid",
  "name": "Weekly Plan",
  "rentalAmount": 3500,
  "depositAmount": 5000,
  "validityDays": 7
}
```

Response (201):

```
{
  "id": "uuid",
  "fleetId": "uuid",
  "name": "Weekly Plan",
  "rentalAmount": 3500,
```

```
  "depositAmount": 5000,
  "validityDays": 7,
  "isActive": true
}
```

Use Case:

- **Onboarding**: Create standard plans (e.g., "Weekly Gold") for new drivers to choose from during registration.

7.2 Get Rental Plans

Endpoint: `GET /payments/admin/rental-plans/:fleetId`
Roles: `SUPER_ADMIN`, `OPERATIONS`, `MANAGER`

Query Parameters:

- `activeOnly` (boolean, default: true)

7.3 Create Penalty

Endpoint: `POST /payments/admin/penalty`
Roles: `SUPER_ADMIN`, `OPERATIONS`

Request Body:

```
{
  "driverId": "uuid",
  "type": "MONETARY",
  "amount": 500,
  "reason": "Customer complaint",
  "category": "BEHAVIOR"
}
```

Penalty Types:

- `MONETARY` - Financial penalty (auto-deducted from deposit for rental model)
- `WARNING` - Verbal/written warning
- `SUSPENSION` - Temporary suspension (requires `suspensionStartDate` and `suspensionEndDate`)
- `BLACKLIST` - Permanent ban

Response (201):

```
{
  "id": "uuid",
  "driverId": "uuid",
  "type": "MONETARY",
  "amount": 500,
  "reason": "Customer complaint",
  "isPaid": true,
```

```
  "deductedFromDeposit": true
}
```

Use Case:

- **Quality Control**: Penalize drivers for "No Shows" or poor behavior reported by customers.
- **Deterrence**: Deduct from deposit immediately to enforce compliance.

7.4 Waive Penalty

Endpoint: `POST /payments/admin/penalty/:id/waive`
Roles: `SUPER_ADMIN`, `OPERATIONS`

Request Body:

```
{
  "waiverReason": "First-time offense, driver apologized"
}
```

Response (200):

```
{
  "success": true,
  "message": "Penalty waived successfully"
}
```

Side Effects:

- Refunds deposit if already deducted
- Reverses suspension/blacklist status

Use Case:

- **Dispute Resolution**: If a driver provides valid proof (e.g., car breakdown), Ops can waive the penalty.

7.5 Create Incentive

Endpoint: `POST /payments/admin/incentive`
Roles: `SUPER_ADMIN`, `OPERATIONS`

Request Body:

```
{
  "driverId": "uuid",
  "amount": 500,
  "reason": "Completed 50 trips this month",
```

```
  "category": "MILESTONE"
}
```

Response (201):

```
{
  "id": "uuid",
  "driverId": "uuid",
  "amount": 500,
  "reason": "Completed 50 trips this month",
  "isPaid": false
}
```

7.6 Process Incentive Payout

Endpoint: `POST /payments/admin/incentive/:id/payout`
Roles: `SUPER_ADMIN` , `OPERATIONS`

Response (200):

```
{
  "success": true,
  "txnId": "TXN_1735123456_PAY123",
  "status": "PENDING",
  "utr": "UTR123456789"
}
```

Note: Sends money to driver's bank account via Easebuzz

Use Case:

- **Reward Distribution**: Operation team processes the approved incentive to credit the driver's bank account.

7.7 Reconcile Daily Collection

Endpoint: `POST /payments/admin/collection/:id/reconcile`
Roles: `SUPER_ADMIN` , `OPERATIONS` , `MANAGER`

Request Body:

```
{
  "expectedRevenue": 5000,
  "reconciliationNotes": "All collections verified"
}
```

Response (200):

```
{
  "success": true,
  "message": "Collection reconciled successfully"
}
```

Side Effects:

- Calculates revenue share
- Applies incentives and penalties
- Prepares for payout

Use Case:

- **End-of-Day Ops**: Manager verifies the physical cash collected matches the system's `expectedRevenue` before closing the shift.

7.8 Process Daily Payout

POST `/payment/admin/collection/:id/payout`

> ***DEPRECATED**: Use Bulk Payout instead.* ***Roles:*** `SUPER_ADMIN` , `OPERATIONS`

7.9 Bulk Payout (Manual)

Endpoint: `POST /payments/admin/bulk-payout` **Roles:** `SUPER_ADMIN` , `OPERATIONS`

Request: `multipart/form-data`

- `file` : CSV File (`phone,amount` or `accountNumber,amount`)

Response:

```
{
  "total": 10,
  "success": 9,
  "failed": 1,
  "amountDisbursed": 45000
}
```

Use Case:

- **Weekly Settlements**: Accountant uploads a CSV of all driver payouts on Monday morning to process them in one batch.

7.10 Vehicle QR Generation

Generate and manage Easebuzz virtual account QR codes for vehicles.

Endpoint: `POST /payments/admin/vehicle/:vehicleId/qr`
Roles: `SUPER_ADMIN` , `OPERATIONS` , `MANAGER`

Response (201):

```
{
  "success": true,
  "data": {
    "virtualAccountId": "VA123456789",
    "qrCodeBase64": "https://api.qrserver.com/v1/create-qr-code/...",
    "upiId": "vehicle@easebuzz"
  }
}
```

Get Existing QR: `GET /payments/admin/vehicle/:vehicleId/qr`

> *[!NOTE]* ***Field Name Clarification****: The* `qrCodeBase64` *field can contain either:*
>
> - *A* ***URL*** *(from Easebuzz or fallback QR generator)*
> - *A* ***base64 string*** *(in some cases)*
>
> *In test mode, a fallback QR is generated using the UPI ID.*

Frontend Usage:

```
// Display QR code - works for both URL and base64
<img
  src={qrCodeBase64?.startsWith('http')
    ? qrCodeBase64
    : `${qrCodeBase64}`}
  alt="Vehicle QR"
/>

// Simpler: If you're sure it's a URL (current implementation)
<img src={qrCodeBase64} alt="Vehicle QR" />
```

Features:

- Scannable with any UPI app
- Payments tracked automatically
- Print for vehicle placement
- Fallback QR generated in test mode

7.10 Get Pending Reconciliations

Endpoint: `GET /payments/admin/reconciliations/pending`
Roles: `SUPER_ADMIN`, `OPERATIONS`, `MANAGER`

Response (200):

```
{
  "reconciliations": [
    {
      "id": "uuid",
      "driver": {
        "firstName": "Raj",
```

```
        "lastName": "Kumar"
      },
      "date": "2025-12-29T00:00:00.000Z",
      "totalCollection": 5000,
      "isReconciled": false
    }
  ]
}
```


Use Case:

- **Manager Dashboard**: Show a list of drivers whose collections are yet to be verified for the previous day.

7.11 Get Pending Payouts

Endpoint: `GET /payments/admin/payouts/pending`
Roles: `SUPER_ADMIN` , `OPERATIONS`

Response (200):


```
{
  "payouts": [
    {
      "id": "uuid",
      "driver": {
        "firstName": "Raj",
        "lastName": "Kumar",
        "bankAccountNumber": "1234567890"
      },
      "date": "2025-12-29T00:00:00.000Z",
      "netPayout": 3800,
      "isPaid": false
    }
  ]
}
```


Use Case:

- **Finance Review**: Finance team reviews all verified collections that are ready for payout before initiating the bank transfer.

7.12 Generate Vehicle QR Code

Endpoint: `POST /payments/admin/vehicle/:id/qr`
Roles: `SUPER_ADMIN` , `OPERATIONS`

Response (201):


```
{
  "id": "uuid",
  "vehicleId": "uuid",
  "virtualAccountId": "VA123456",
```

```
  "virtualAccountNumber": "1234567890123456",
  "ifscCode": "HDFC0000001",
  "qrCodeBase64": "...",
  "upiId": "driversklub.va123456@easebuzz",
  "isActive": true
}
```


Use Case:

- **New Car Setup**: Generate a unique QR code sticker for a new vehicle so passengers can pay via UPI directly to the vehicle's virtual account.

7.13 Get Vehicle QR Code

Endpoint: `GET /payments/admin/vehicle/:id/qr`
Roles: `SUPER_ADMIN`, `OPERATIONS`, `MANAGER`

Response (200):


```
{
  "id": "uuid",
  "vehicleId": "uuid",
  "qrCodeBase64": "...",
  "upiId": "driversklub.va123456@easebuzz",
  "isActive": true
}
```


Use Case:

- **Reprinting**: Manager retrieves the existing QR code if the physical sticker is damaged or lost.

7.14 InstaCollect Orders (Dynamic QR)

Create Order (Generate Dynamic QR)

Endpoint: `POST /payments/orders` **Roles:** `SUPER_ADMIN`, `OPERATIONS`, `MANAGER`

Request Body:


```
{
  "customerName": "John Doe",
  "customerPhone": "9876543210",
  "amount": 2500,
  "description": "Advance Payment for Trip #123"
}
```


Response (201):

```
{
  "success": true,
  "data": {
    "id": "uuid-order-id",
    "totalAmount": 2500,
    "collectedAmount": 0,
    "remainingAmount": 2500,
    "status": "PENDING",
    "virtualAccountId": "VA_ORDER_123",
    "qrCodeBase64": "...",
    "upiId": "driversklub.order123@easebuzz"
  }
}
```


Use Case:

- **Ad-Hoc Payments**: Driver or Admin enters an amount on the app/dashboard to generate a **one-time QR code** for a passenger to scan and pay instantly.

Get Order Details

Endpoint: `GET /payments/orders/:id` **Roles:** `SUPER_ADMIN`, `OPERATIONS`, `MANAGER`

Response (200):


```
{
  "success": true,
  "data": {
    "id": "uuid-order-id",
    "customerName": "John Doe",
    "customerPhone": "9876543210",
    "description": "Advance Payment",
    "totalAmount": 2500,
    "collectedAmount": 1000,
    "remainingAmount": 1500,
    "status": "PARTIAL",
    "virtualAccountId": "VA_ORDER_123",
    "qrCodeBase64": "data:image/png;base64...",
    "transactions": [
      {
        "id": "txn-uuid",
        "amount": 1000,
        "status": "SUCCESS",
        "date": "2025-12-25T10:00:00Z"
      }
    ],
    "createdAt": "2025-12-25T09:00:00Z"
  }
}
```


List Orders

Endpoint: `GET /payments/orders` **Roles:** `SUPER_ADMIN`, `OPERATIONS`, `MANAGER`

Query Params:

- `page` (default: 1)
- `limit` (default: 10)
- `status` (optional): `PENDING`, `PARTIAL`, `COMPLETED`
- `search` (optional): Filter by Customer Name or Phone

Response (200):


```
{
  "success": true,
  "data": [
    {
      "id": "uuid-order-1",
      "customerName": "Alice Smith",
      "totalAmount": 5000,
      "collectedAmount": 5000,
      "status": "COMPLETED",
      "createdAt": "2025-12-24T10:00:00Z"
    },
    {
      "id": "uuid-order-2",
      "customerName": "Bob Jones",
      "totalAmount": 2000,
      "collectedAmount": 0,
      "status": "PENDING",
      "createdAt": "2025-12-25T11:00:00Z"
    }
  ],
  "pagination": {
    "page": 1,
    "limit": 10,
    "total": 50,
    "totalPages": 5
  }
}
```


---

8. Frontend Implementation Notes

8.1 CORS

- **Current:** Configured to allow all origins (`*`)
- **Production:** Whitelist specific domains

8.2 Date Handling

- Use `date-fns` or `moment` to parse UTC ISO strings from API
- **Always display in User's Local Time**
- Store in UTC, display in local

```
import { format, parseISO } from 'date-fns';

const displayTime = format(parseISO(trip.pickupTime), 'PPpp');
// Output: "Dec 25, 2025, 10:00 AM"
```

8.3 State Management

Recommendations:

- Cache `Fleets` and `Drivers` lists (TanStack Query recommended) as they change infrequently
- Poll `Trips` list (every 30s) or use a "Refresh" button for operations
- Handle `401 Unauthorized` by redirecting to Login
- Implement optimistic updates for better UX

Example with TanStack Query:

```
const { data: trips } = useQuery({
  queryKey: ['trips', { status, page }],
  queryFn: () => fetchTrips({ status, page }),
  refetchInterval: 30000, // 30 seconds
});
```

8.4 Error Handling

```
try {
  await assignDriver(tripId, driverId);
  toast.success('Driver assigned successfully');
} catch (error) {
  if (error.response?.status === 401) {
    // Redirect to login
    router.push('/login');
  } else {
    toast.error(error.response?.data?.message || 'Failed to assign driver');
  }
}
```

8.5 Role-Based UI

```
const canCreateTrip = ['SUPER_ADMIN', 'OPERATIONS'].includes(user.role);
const canApproveAttendance = ['SUPER_ADMIN', 'MANAGER'].includes(user.role);

{canCreateTrip && <Button onClick={openCreateTripModal}>Create Trip</Button>}
```

8.6 Pagination Component

```
<Pagination
  currentPage={page}
  totalPages={Math.ceil(total / limit)}
  onPageChange={setPage}
/>
```

8.7 Status Badge Component

```
const getStatusColor = (status) => {
  switch (status) {
    case 'CREATED': return 'gray';
    case 'DRIVER_ASSIGNED': return 'blue';
    case 'STARTED': return 'yellow';
    case 'COMPLETED': return 'green';
    case 'CANCELLED': return 'red';
    default: return 'gray';
  }
};

<Badge color={getStatusColor(trip.status)}>{trip.status}</Badge>
```

8.8 Real-time Updates (Optional)

Consider implementing WebSocket connection for real-time trip status updates:

```
const socket = io('wss://driversklub-backend.onrender.com');

socket.on('trip:updated', (trip) => {
  queryClient.setQueryData(['trip', trip.id], trip);
});
```

📝 Checklist for Production

- [ ] Implement token refresh logic
- [ ] Add role-based access control to UI
- [ ] Implement pagination for all list views
- [ ] Add loading states for all API calls
- [ ] Add error handling with user-friendly messages
- [ ] Implement date/time formatting (UTC → Local)
- [ ] Add confirmation dialogs for destructive actions
- [ ] Implement search/filter functionality

- [ ] Add export to CSV functionality
- [ ] Test all edge cases (empty states, errors, etc.)

---

9. Rapido Operational Monitoring

9.1 Conflict Resolution Logic

The dashboard does not have a manual "Sync Rapido Status" button because the process is fully automated.

- **Logic**: The backend runs a worker every 5 minutes.
- **Conflicts**: If a driver is found ONLINE on Rapido but BUSY internally, the system auto-corrects this.
- **Logs**: All auto-corrections are logged in the backend logs (viewable via server logs).

9.2 Manual Override Alert

If a driver manually forces themselves ONLINE in the Rapido app:

1. System detects `status: online` webhook.
2. System checks assignments.
3. If conflict exists, system forces OFFLINE immediately.

---

10. Maps Service

10.1 Location Autocomplete

Endpoint: `GET /maps/autocomplete`
Auth Required: Yes
Role: `SUPER_ADMIN`, `OPERATIONS`, `MANAGER`

Query Parameters:

- `query` (required): Search text (e.g., "Airport")

Response (200):

```
{
  "success": true,
  "data": [
    {
      "description": "Indira Gandhi International Airport, New Delhi",
      "place_id": "ChIJ..."
    }
  ]
}
```

10.2 Geocode Address

Endpoint: `GET /maps/geocode`
Auth Required: Yes
Role: `SUPER_ADMIN`, `OPERATIONS`, `MANAGER`

Query Parameters:

- `address` (required): Address string

Response (200):

```
{
  "success": true,
  "data": {
    "lat": 28.5562,
    "lng": 77.1000,
    "formattedAddress": "Indira Gandhi International Airport..."
  }
}
```