

# SASCU Vehicle Booking API

(Updated December 2025 – Full Invoicing + Payments + Reports)

## Base URL

`http://localhost:5000/api`

**Authentication** All protected routes require:

`Authorization: Bearer <see .env file>`

### 1. AUTH

Method	Endpoint	Body	Response
POST	/auth/register	{ name, email, password, phone? }	{ token, user }
POST	/auth/login	{ email, password }	{ token, user }

### 2. User Profile (Protected)

Method	Endpoint	Body	Response
GET	/users/me	–	Current user
PUT	/users/me	{ name?, phone? }	Updated user

### 3. Vehicles (Public)

Method	Endpoint	Response
GET	/vehicles	All available vehicles
GET	/vehicles/:id	Single vehicle details

### 4. Bookings – User Actions

Method	Endpoint	Body / Params	Response
POST	/bookings	{ vehicleId, startDate, endDate } (ISO)	New booking + bookingRef
GET	/bookings/my	–	All user bookings (populated)

**Dates format:** "2025-12-15T10:00:00Z"

## 5. Payments – User Flow

Method	Endpoint	Body	Response
POST	/payments/create-checkout-session	{ bookingId } }	{ url } → redirect to success page

After payment → redirect to your success page (set FRONTEND\_URL in .env)

## 6. ADMIN ONLY ROUTES (role: "admin")

Make a user admin in MongoDB:

```
db.users.updateOne({ email: "admin@company.com" }, { $set: { role: "admin" } })
```

### 6.1 Vehicles (Admin)

Method	Endpoint	Body
POST	/vehicles	Full vehicle object

### 6.2 Manual / Partial Payments (Admin)

Method	Endpoint	Body
POST	/admin/bookings/:bookingId/payments	{ amount, paymentMethod?: "cash" }

Response includes paidAmount, balance, and updates paymentStatus automatically (partial → paid)

### 6.3 View Payment History

Method	Endpoint
<b>GET</b>	/admin/bookings/:bookingId/payments

### 6.4 Invoices – Full Accounting System

Method	Endpoint	Action
<b>GET</b>	/admin/invoices	List all invoices
<b>GET</b>	/admin/invoices/:id	Single invoice details
<b>PATCH</b>	/admin/invoices/:id/sent	Mark as "sent"
<b>POST</b>	/admin/invoices/:id-sync-payment	Sync paid amount from payments
<b>GET</b>	/admin/invoices/:id/pdf	Download beautiful PDF invoice
<b>POST</b>	/admin/invoices/:id/email	Email PDF invoice to customer

### Invoice object sample

```
{
  "invoiceNumber": "INV-20251208-001",
  "bookingRef": "BOOK-20251208-001",
  "totalAmount": 1200,
  "paidAmount": 800,
  "status": "sent",
  "dueDate": "2025-12-15T00:00:00Z",
  "booking": {
    "user": { "name": "John", "email": "john@example.com" },
    "vehicle": { "make": "Toyota", "model": "Camry" }
  }
}
```

### 6.5 Reports & Dashboard (Admin)

Method	Endpoint	Query Params	Response
<b>GET</b>	/reports/dashboard	–	Revenue, bookings, vehicles stats
<b>GET</b>	/reports/revenue	`?startDate=...&endDate=...&groupBy=day`	month`
<b>GET</b>	/reports/top-vehicles	–	Top 10 earning vehicles
<b>GET</b>	/reports/export-csv	–	Download all bookings as CSV

### Error Responses (Consistent)

```
{ "message": "Vehicle already booked for these dates" }
```

Status codes: 400, 401, 403, 404, 500

## Full User Flow (What Frontend Should Do)

1. Register → Login → Save token
2. Browse /vehicles → Pick dates → POST /bookings
3. Show booking + "Pay Now" button
4. Pay via Stripe → Success page
5. Admin logs in → Can:
  - o Record cash payments
  - o Generate/send PDF invoices
  - o View full reports