## **Car Dealership API – Test Scenarios**

- If valid  $\rightarrow$  Vehicle updated.

```
■ Scenario 1: Register as Customer
1. Request OTP → POST /api/Otp/request
{ "purpose": "register", "identifier": "customer@example.com" }
2. Register → POST /api/Auth/register
{ "email": "customer@example.com", "password": "Test@1234", "otpld": "otp-guid-here", "code": "123456" }
3. Store returned JWT (Role = Customer).
■ Scenario 2: Customer Requests Purchase
1. Browse vehicles \rightarrow GET /api/Vehicles/browse.
2. Request OTP \rightarrow POST /api/Otp/request
{ "purpose": "purchase", "identifier": "customer@example.com" }
3. Submit purchase \rightarrow POST /api/Purchases/request
{ "vehicleId": "vehicle-guid-here", "otpId": "otp-guid-here", "code": "123456" }
4. Confirm in history → GET /api/Purchases/history.
■ Scenario 3: Admin Processes Sale
1. Login as Admin:
 - Request OTP \rightarrow POST /api/Otp/request
{ "purpose": "login", "identifier": "admin@demo.local" }
 - Login \rightarrow POST /api/Auth/login
{ "email": "admin@demo.local", "password": "P@ssw0rd!", "otpld": "otp-guid-here", "code": "123456" }
2. List customers → GET /api/Admin/customers.
3. Approve sale \rightarrow POST /api/Admin/process-sale/purchase-guid-here?approve=true.
4. Retry same purchase → Expect error ALREADY_PROCESSED.
■ Scenario 4: Vehicle Management (Admin)
1. Add vehicle → POST /api/Vehicles/add
{ "make": "Toyota", "model": "Camry", "year": 2020, "price": 80000, "color": "Black", "mileageKm": 30000 }
 - If year > current year → Expect INVALID_YEAR.
2. Update vehicle → PUT /api/Vehicles/update (requires OTP purpose=updateVehicle).
{ "id": "vehicle-guid-here", "make": "Toyota", "model": "Corolla", "year": 2019, "price": 75000, "color": "Blue", "mile
 - If OTP invalid \rightarrow Expect OTP_INVALID.
```

## ■ Scenario 5: Security & Errors

- Without JWT  $\rightarrow$  401 Unauthorized.
- Customer calls Admin endpoint  $\rightarrow$  403 Forbidden.
- Register same email  $\rightarrow$  EMAIL\_EXISTS.
- Purchase unavailable vehicle  $\rightarrow$  VEHICLE\_UNAVAILABLE.
- Process non-pending purchase  $\rightarrow$  ALREADY\_PROCESSED.