# Car Management API Documentation

### Base URL

- Local Development: http://localhost:5001/api
- Production: https://carapp-backend-czb0.onrender.com/api

### Authentication

This API uses JWT for authentication. Include the token in the Authorization header for requests that require authentication.

Authorization: Bearer <your_token>

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### Endpoints

### User Routes

### Register a New User

- **URL:** /api/users/register
- **Method:** POST
- **Description:** Register a new user with an email and password.
- **Body Parameters:**
  - name (string): User's name.
  - email (string): User's email.
  - password (string): User's password.
- **Response:**
  - 201 Created: Returns the created user.
  - 400 Bad Request: Invalid input data.

### Login

- **URL:** /api/users/login
- **Method:** POST
- **Description:** Logs in a user and returns a JWT token.
- **Body Parameters:**
  - email (string): User's email.
  - password (string): User's password.

- **Response:**
  - 200 OK: Returns an authentication token.
  - 401 Unauthorized: Invalid credentials.

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**Car Routes**

**Get All Cars for Logged-in User**

- **URL:** /api/cars
- **Method:** GET
- **Description:** Retrieve all cars associated with the authenticated user.
- **Headers:** Requires Authorization header with Bearer token.
- **Response:**
  - 200 OK: List of cars owned by the user.
  - 401 Unauthorized: Invalid or missing token.

**Create a New Car**

- **URL:** /api/cars
- **Method:** POST
- **Description:** Creates a new car with multiple images.
- **Headers:** Requires Authorization header with Bearer token.
- **Body Parameters:**
  - title (string): Title of the car.
  - description (string): Description of the car.
  - tags (string): Comma-separated tags.
  - images (file[]): Array of images to upload (up to 10 files).
- **Response:**
  - 201 Created: Returns the created car object.
  - 400 Bad Request: Missing images or required data.
  - 500 Internal Server Error: Server error.

**Get a Car by ID**

- **URL:** /api/cars/{id}
- **Method:** GET
- **Description:** Retrieve a car by its ID.

- **Headers:** Requires Authorization header with Bearer token.
- **Path Parameters:**
    - id (string): The car ID.
- **Response:**
    - 200 OK: Car details.
    - 404 Not Found: Car not found.
    - 401 Unauthorized: Invalid or missing token.

**Search for Cars by Title**

- **URL:** /api/cars/search
- **Method:** GET
- **Description:** Search cars by title for the authenticated user.
- **Headers:** Requires Authorization header with Bearer token.
- **Query Parameters:**
    - keyword (string): Search keyword for the car title.
- **Response:**
    - 200 OK: List of cars matching the search.
    - 400 Bad Request: Missing search keyword.
    - 500 Internal Server Error: Server error.

**Update Car Information**

- **URL:** /api/cars/{id}
- **Method:** PUT
- **Description:** Updates a car's information, including images.
- **Headers:** Requires Authorization header with Bearer token.
- **Path Parameters:**
    - id (string): The car ID.
- **Body Parameters:**
    - title (string, optional): New title.
    - description (string, optional): New description.
    - tags (string, optional): New comma-separated tags.
    - images (file[], optional): New images (up to 10).
- **Response:**

    - 200 OK: Updated car details.
    - 404 Not Found: Car not found.
    - 500 Internal Server Error: Server error.

**Delete a Car**

- **URL:** /api/cars/{id}
- **Method:** DELETE
- **Description:** Deletes a car along with its associated images.
- **Headers:** Requires Authorization header with Bearer token.
- **Path Parameters:**
    - id (string): The car ID.
- **Response:**
    - 200 OK: Confirmation of deletion.
    - 404 Not Found: Car not found.
    - 500 Internal Server Error: Server error.

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**Error Responses**

The API may return the following HTTP status codes:

- **200 OK** - The request was successful.
- **201 Created** - The resource was successfully created.
- **400 Bad Request** - The request was invalid or missing parameters.
- **401 Unauthorized** - Authentication failed.
- **404 Not Found** - The requested resource does not exist.
- **500 Internal Server Error** - An error occurred on the server.

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**Example Requests**

**Create a New Car with Images**

POST /api/cars

Authorization: Bearer <your_token>

Content-Type: multipart/form-data

```
{
  "title": "My New Car",
  "description": "A nice car",
  "tags": "SUV, Family",
  "images": [image files...]
}
```

**Search Cars by Title**

```
GET /api/cars/search?keyword=SUV
Authorization: Bearer <your_token>
```

**Update Car Information**

http

```
PUT /api/cars/{id}
Authorization: Bearer <your_token>
Content-Type: multipart/form-data
{
  "title": "Updated Car Title",
  "description": "Updated description",
  "tags": "Luxury, Sedan",
  "images": [new image files...]
}
```

**Delete a Car**

```
DELETE /api/cars/{id}
Authorization: Bearer <your_token>
```

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