CarSet Task Management API

Overview

The CarSet Task Management API is a backend service designed to help the CarSet operations team manage tasks related to luxury car rentals. This API allows users to register, authenticate, and manage tasks efficiently and securely.

Features

- User registration and authentication with JWT
- Secure password storage using bcrypt hashing
- Task management: create, retrieve, update, complete, and delete tasks
- Public and authenticated task creation endpoints

Tech Stack

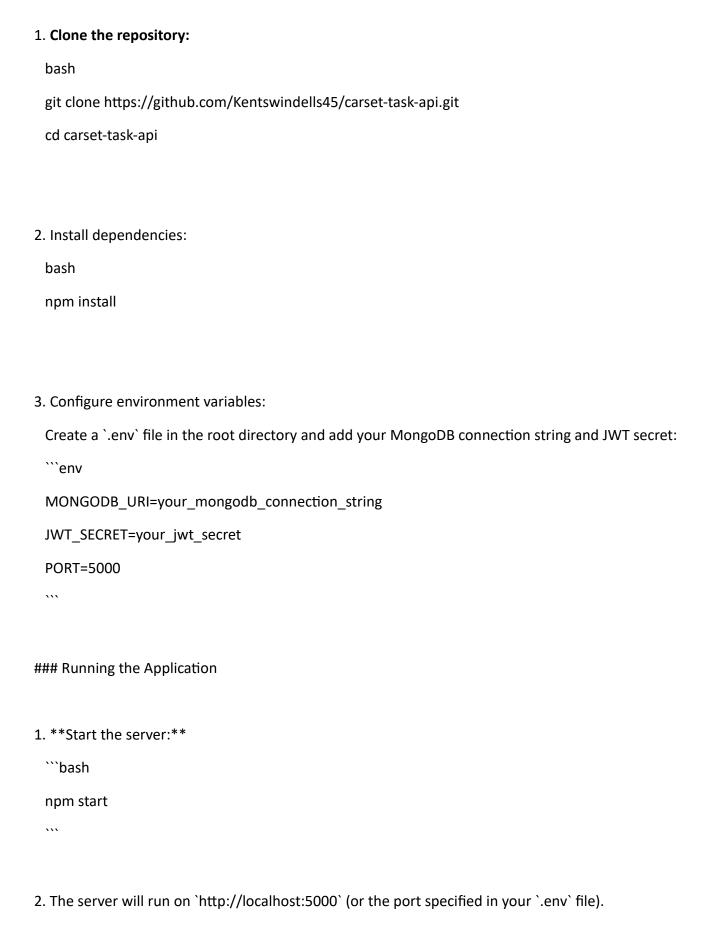
- Node.js
- Express.js
- MongoDB (with Mongoose)
- JSON Web Tokens (JWT)
- Bcrypt for password hashing

Getting Started

Prerequisites

- Node.js (version 14 or higher)
- MongoDB (local or cloud instance)
- npm (Node package manager)

Installation



API Endpoints

```
Authentication
- POST '/api/register'**: Register a new user
 Request body: `{ "name": "User", "email": "user@example.com", "password": "password123" }`
- POST `/api/login`**: Login and receive a JWT
 Request body: `{ "email": "user@example.com", "password": "password123" }`
Task Management
- POST `/api/tasks`**: Create a new task (requires authentication)
- GET '/api/tasks'**: Retrieve all tasks for the authenticated user (requires authentication)
- PUT `/api/tasks/:id`**: Edit an existing task (requires authentication)
- PATCH '/api/tasks/:id/complete`**: Mark a task as completed (requires authentication)
- DELETE '/api/tasks/:id`**: Delete a task (requires authentication)
- POST '/api/add'**: Add a new task without authentication (for testing/demo)
## Usage Examples
### Register a User
```bash
curl -X POST http://localhost:5000/api/register \
-d '{"name": "John Doe", "email": "john@example.com", "password": "password123"}' \
-H "Content-Type: application/json"
...
```

### Login

```bash

```
curl -X POST http://localhost:5000/api/login \
-d '{"email": "john@example.com", "password": "password123"}' \
-H "Content-Type: application/json"
Create a Task (Authenticated)
```bash
curl -X POST http://localhost:5000/api/tasks \
-d '{"title": "Verify vehicle documents", "description": "Check all necessary documents for the vehicle."}' \
-H "Authorization: Bearer your jwt token" \
-H "Content-Type: application/json"
Add a Task Without Authentication
```bash
curl -X POST http://localhost:5000/api/add \
-d '{"title": "Public Task", "description": "No auth required"}' \
-H "Content-Type: application/json"
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## Testing with Postman
1. **Register** a user using the `/api/register` endpoint.
2. **Login** to receive a JWT token.
3. For all authenticated endpoints, add this header in Postman:
  `Authorization: Bearer < your jwt token>`
4. Test task creation, retrieval, update, completion, and deletion as described above.
```

License

This project is licensed under the MIT License.

Acknowledgments

- Inspired by the need for efficient task management in the luxury car rental industry.
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