

# Blog Management System

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## 1. Introduction

The **Blog Management System** is a **web application** developed using **Golang**, aimed at providing a platform for users to create, read, and manage blog posts. It is built using the **Gin framework** and follows RESTful principles, integrating **OAuth authentication** and **MongoDB Atlas** as the database.

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## 2. Objectives

- Develop a **scalable blog management system** using **Go**.
  - Implement **OAuth authentication** for secure user login.
  - Provide **CRUD operations** (Create, Read, Login) for blog posts.
  - Store blog data in a **MongoDB Atlas database**.
  - Ensure a **modular code structure** with separate concerns.
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## 3. Technology Stack

|                        |               |
|------------------------|---------------|
| <b>Backend</b>         | Golang (Go)   |
| <b>Framework</b>       | Gin           |
| <b>Database</b>        | MongoDB Atlas |
| <b>Authentication</b>  | OAuth         |
| <b>Version Control</b> | Git & GitHub  |
| <b>API Testing</b>     | Postman       |

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## 4. Features Implemented

### A. Authentication

- Users authenticate via **OAuth**.
- Secure token-based authentication.

## B. Blog Post Management

- **Create** a new blog.
- **Read** existing blogs.
- **User login**

## C. REST API Endpoints

| HTTP Method | Endpoint  | Description                   |
|-------------|-----------|-------------------------------|
| POST        | /login    | User authentication via OAuth |
| POST        | /blog     | Create a new blog             |
| GET         | /blog/:id | Get blog by ID                |

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## 7. How to Run the Project

### Step 1: Clone the Repository

```
git clone https://github.com/VaishnaviDubey0907/blog_management.git
cd blog-management
```

### Step 2: Set Up the Environment

Create a `.env` file and add:

```
MONGO_URI=mongodb+srv://<username>:<password>@cluster0.mongodb.net/?retryWrites=true&w=majority
```

### Step 3: Install Dependencies

```
go mod init
go mod tidy
```

### Step 4: Run the Server

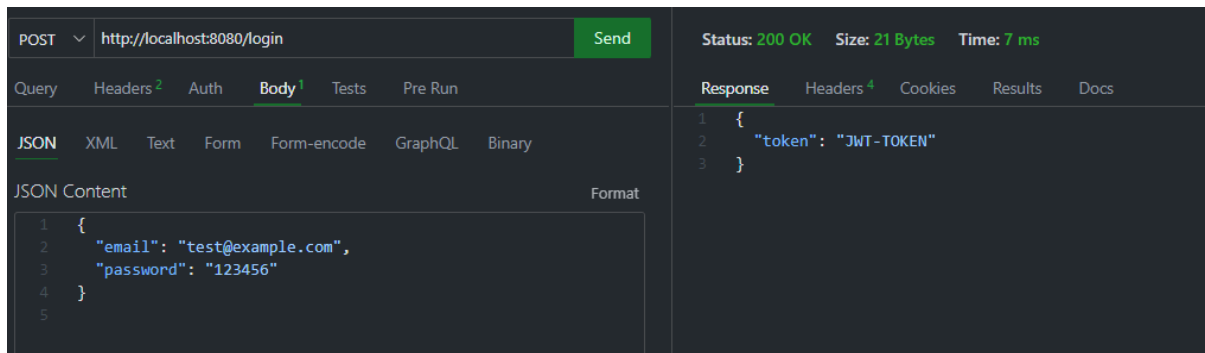
```
go run main.go
```

The server will run at **http://localhost:8080**.

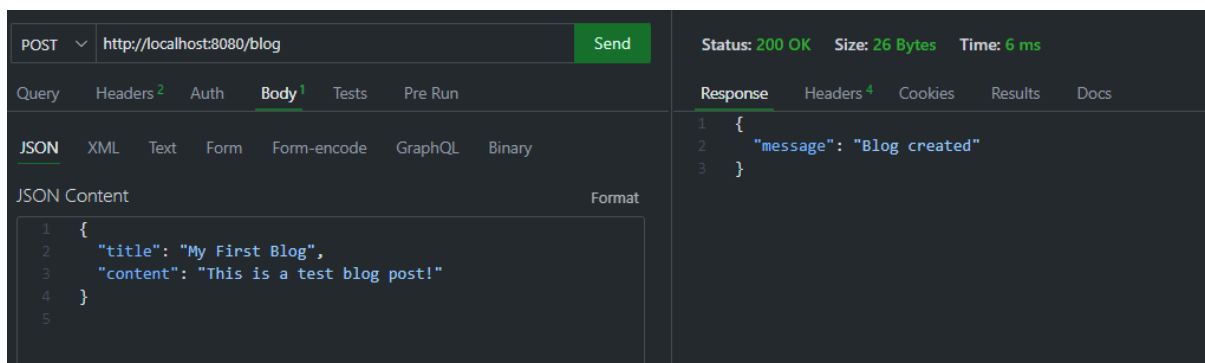
## 8. Testing with Postman

- Use **Postman** to send API requests.
- Set the request type (GET, POST, etc.) and URL (`http://localhost:8080/blog`).
- Include required **JSON body** for POST requests.

<http://localhost:8080/login> - try login with registered user



<http://localhost:8080/blog> - created a blog



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## 9. Challenges Faced

- Configuring **OAuth authentication**.
- Handling **MongoDB ObjectID conversions**.
- Resolving **import errors** in Go modules.

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## 11. Conclusion

This project successfully implements a **scalable and secure Blog Management System** using **Go, Gin, OAuth**, and **MongoDB Atlas**. It provides an easy-to-use API with proper authentication, making it a robust application for managing blogs.