Marwadi University Marwadi Chandarana Group NAAC A+	**Marwadi University** **Faculty of Technology** **Department of Information and Communication Technology**	
Subject: Advanced Web Technology (01CT1625)	**Aim:** Database: Using MongoDB, build the CRUD operations with NodeJS	
Experiment No:- 12	**Date:-**	**Enrollment No:-** 92200133030

Objective:- Database: Using MongoDB, build the CRUD operations with NodeJS.

Code :-

mongo_client :-

App.jsx

```
import { useState, useEffect } from 'react';
import axios from 'axios';
import AddBlogs from './components/AddBlogs';
import BlogsTable from './components/BlogsTable';
import './App.css';

const API_URL = 'http://localhost:3000/api/blogs';

const App = () => {
  const [blogs, setBlogs] = useState([]);
  const [editingBlog, setEditingBlog] = useState(null);
  const [loading, setLoading] = useState(false);
  const [error, setError] = useState('');

  useEffect(() => {
    fetchBlogs();
  }, []);

  const fetchBlogs = async () => {
    setLoading(true);
    try {
      const response = await axios.get(API_URL);
      setBlogs(response.data.blogs);
      setError('');
    } catch (error) {
      console.error('Error fetching blogs:', error);
      setError('Failed to fetch blogs. Try again later.');
    } finally {
      setLoading(false);
    }
  };

  const addBlog = async (newBlog) => {
    try {
      if (editingBlog) {
        await axios.put(`${API_URL}/${editingBlog._id}`, newBlog);
        setEditingBlog(null);
      } else {
        await axios.post(API_URL, newBlog);
      }
```

```
      fetchBlogs();
    } catch (error) {
      console.error('Error adding/updating blog:', error);
      setError('Failed to save blog.');
    }
  };

  const deleteBlog = async (id) => {
    if (!window.confirm('Are you sure you want to delete this blog?')) return;

    try {
      if (!id) {
        throw new Error('Blog ID is required');
      }
      const response = await axios.delete(`${API_URL}/${id}`);
      if (response.data) {
        setBlogs((prevBlogs) => prevBlogs.filter((blog) => blog._id !== id));
        setError('');
      }
    } catch (error) {
      console.error('Error deleting blog:', error);
      const errorMessage = error.response?.data?.message || 'Failed to delete blog. Please check if
the ID is valid.';
      setError(errorMessage);
    }
  };

  return (
    <div className="container">
      <h1>Blog Management System</h1>
      {loading && <p>Loading...</p>}
      {error && <p className="error">{error}</p>}
      <AddBlogs onAdd={addBlog} editingBlog={editingBlog} />
      <BlogsTable
        blogs={blogs}
        onEdit={setEditingBlog}
        onDelete={deleteBlog}
      />
    </div>
  );
};

export default App;
```

App.css

```
/* Import Poppins Font */
@import url('https://fonts.googleapis.com/css2?family=Poppins:wght@300;400;500;600&display=swap');
```

```
/* General Reset */
* {
  box-sizing: border-box;
  margin: 0;
  padding: 0;
}

/* Full-Screen Layout */
body {
  font-family: 'Poppins', sans-serif;
  background: linear-gradient(135deg, #74EBD5, #ACB6E5);
  color: #333;
  min-height: 100vh;
  display: flex;
  justify-content: center;
  align-items: center;
  padding: 20px;
}

/* Main Container */
.container {
  background: #fff;
  box-shadow: 0 10px 20px rgba(0, 0, 0, 0.1);
  border-radius: 12px;
  max-width: 1200px;
  width: 100%;
  padding: 40px;
  animation: fadeIn 0.8s ease-in-out;
  transition: all 0.3s;
}

/* Header Styling */
h1 {
  color: #4CAF50;
  font-size: 36px;
  margin-bottom: 20px;
  text-align: center;
}

/* Form Styling */
form {
  display: grid;
  grid-template-columns: repeat(4, 1fr);
  gap: 20px;
  padding: 20px 0;
}

form input {
  padding: 12px;
  border: 1px solid #ccc;
```

```
  border-radius: 8px;
  font-size: 16px;
  color: #333;
  transition: all 0.3s;
}

form input:focus {
  outline: none;
  border-color: #4CAF50;
  box-shadow: 0 0 8px rgba(76, 175, 80, 0.5);
}

form button {
  grid-column: span 4;
  padding: 14px;
  background: #4CAF50;
  color: white;
  border: none;
  border-radius: 8px;
  font-size: 16px;
  cursor: pointer;
  transition: background 0.3s, transform 0.2s;
}

form button:hover {
  background: #45a049;
  transform: scale(1.05);
}

form button:active {
  transform: scale(0.95);
}

/* Table Styling */
table {
  width: 100%;
  border-collapse: collapse;
  margin-top: 20px;
}

thead {
  background: #4CAF50;
  color: white;
}

th, td {
  padding: 10px;
  text-align: center;
  border-bottom: 1px solid #ddd;
  font-size: 16px;
```

```
}

tbody tr:hover {
  background: #f1f1f1;
}

/* Alternating row colors */
tbody tr:nth-child(even) {
  background: #f9f9f9;
}

/* Button Styling */
button {
  cursor: pointer;
  transition: all 0.3s ease;
}

/* Edit and Delete Buttons */
.edit-btn {
  background: #2196F3;
  color: white;
  border: none;
  padding: 10px 20px;
  border-radius: 8px;
  font-size: 14px;
  margin-right: 5px;
  transition: 0.3s;
  margin-bottom: 2px;
  width: 90px;
}

.edit-btn:hover {
  background: #1976D2;
  transform: scale(1.05);
}

.delete-btn {
  background: #f44336;
  color: white;
  border: none;
  padding: 10px 20px;
  border-radius: 8px;
  font-size: 14px;
  transition: 0.3s;
  width: 90px;
}

.delete-btn:hover {
  background: #d32f2f;
  transform: scale(1.05);
```

```
}

/* Animation */
@keyframes fadeIn {
  from {
    opacity: 0;
    transform: translateY(-30px);
  }
  to {
    opacity: 1;
    transform: translateY(0);
  }
}

/* Responsive Design */
@media (max-width: 1024px) {
  form {
    grid-template-columns: repeat(2, 1fr);
  }

  form button {
    grid-column: span 2;
  }

  th, td {
    font-size: 14px;
    padding: 12px;
  }
}

@media (max-width: 768px) {
  form {
    grid-template-columns: 1fr;
  }

  form button {
    grid-column: span 1;
  }

  th, td {
    font-size: 12px;
    padding: 10px;
  }

  .container {
    padding: 20px;
  }

  h1 {
    font-size: 28px;
```

```
  }
}
```

Components/AddBlogs.jsx

```
import React, { useState, useEffect } from 'react';

const AddBlogs = ({ editingBlog, onAdd }) => {
  const [id, setId] = useState('');
  const [title, setTitle] = useState('');
  const [authorName, setAuthorName] = useState('');
  const [date, setDate] = useState('');
  const [content , setContent] = useState('');

  // Pre-fill form with existing data during editing
  useEffect(() => {
    if (editingBlog) {
      setId(editingBlog._id);
      setTitle(editingBlog.title);
      setAuthorName(editingBlog.author);
      setDate(editingBlog.date.split('T')[0]);
      setContent(editingBlog.description);
    } else {
      // Reset form when not editing
      setId('');
      setTitle('');
      setAuthorName('');
      setDate('');
      setContent('');
    }
  }, [editingBlog]);

  const handleSubmit = async (e) => {
    e.preventDefault();

    const blogData = {
      _id : id,
      title: title,
      author: authorName,
      description : content,
      date: date || new Date().toISOString().split('T')[0] // Use current date if none provided
    };

    try {
      await onAdd(blogData);
      alert(`Blog ${editingBlog ? 'updated' : 'added'} successfully!`);
    } catch (error) {
      console.error('Error saving blog:', error);
      alert('Failed to save blog');
    }
```

```
    // Clear form after submission
    setId('');
    setTitle('');
    setAuthorName('');
    setDate('');
    setContent('');
  };

  return (
    <form onSubmit={handleSubmit}>
      <input
        type="text"
        placeholder="Title"
        value={title}
        onChange={(e) => setTitle(e.target.value)}
        required
      />
      <input
        type="text"
        placeholder="Author Name"
        value={authorName}
        onChange={(e) => setAuthorName(e.target.value)}
        required
      />
      <input
        type="text"
        placeholder="Content"
        value={content}
        onChange={(e) => setContent(e.target.value)}
        required
      />
      <input
        type="date"
        placeholder="Date"
        value={date}
        onChange={(e) => setDate(e.target.value)}
        required
      />
      <button type="submit">
        {editingBlog ? 'Update Blog' : 'Add Blog'}
      </button>
    </form>
  );
};

export default AddBlogs;
```

Components/BlogsTable.jsx

```
import React from 'react';

const BlogsTable = ({ blogs, onEdit, onDelete }) => {
  if (!blogs || !Array.isArray(blogs) || blogs.length === 0) {
    return <p>No blogs available.</p>;
  }

  return (
    <div>
      <h2>Blogs</h2>
      <table>
        <thead>
          <tr>
            <th>ID</th>
            <th>Title</th>
            <th>Author Name</th>
            <th>Content</th>
            <th>Date</th>
            <th>Actions</th>
          </tr>
        </thead>
        <tbody>
          {blogs.map((blog) => (
            <tr key={blog._id}>
              <td>{blog._id}</td>
              <td>{blog.title}</td>
              <td>{blog.author}</td>
              <td>{blog.description}</td>
              <td>{new Date(blog.date).toLocaleDateString().split('T')[0]}</td>
              <td>
                <button
                  className="edit-btn"
                  onClick={() => onEdit(blog)}
                >
                  Edit
                </button>
                <button
                  className="delete-btn"
                  onClick={() => onDelete(blog._id)}
                >
                  Delete
                </button>
              </td>
            </tr>
          ))}
        </tbody>
      </table>
    </div>
```

```
  );
};

export default BlogsTable;
```

mongo_server :-

index.js :-

```
const express = require("express");
const app = express();
const port = 3000;
const cors = require("cors");
app.use(
  cors({
    origin: "http://localhost:5173",
  })
);

//middleware
app.use(express.json());
app.use(express.urlencoded({ extended: true }));

const dbConfig = require("./src/config/db.config");

const mongoose = require("mongoose");

mongoose.Promise = global.Promise;

mongoose
  .connect(dbConfig.url, {
    useNewUrlParser: true,
    useUnifiedTopology: true,
  })
  .then(() => {
    console.log("Sucessfully Connected to the Database");
  })
  .catch((err) => {
    console.log("Error in Database connection ", err);
    process.exit();
  });

const blogRouter = require("./src/blog/blog.routes");

app.use("/api/blogs", blogRouter);

app.get("/", (req, res) => res.send("Welcome to the API of AWT Experiment - 6 API"));
app.listen(port, () => console.log(`Server is running on http://localhost:${port}`));
```

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config/db.config.js :-

```
module.exports = {
    url: "mongodb://127.0.0.1:27017/exp_6_blog",
};
```

blog/blo.controller.js

```
const blogService = require("../blog/blog.services");

exports.create = async (req, res) => {
  const { title, description, author , date } = req.body;
  if (!title || !description || !author) {
    return res.status(400).json({ message: "Fields are empty" });
  }

  try {
    const blog = await blogService.createBlog(title, description, author , date);
    res.status(201).json({ message: "Blog created successfully", blog });
  } catch (err) {
    console.error("Error creating blog:", err);
    res.status(500).json({ error: "Internal server error" });
  }
};

exports.findAll = async (req, res) => {
  try {
    const blogs = await blogService.findAllBlogs();
    res.send({ message: "Blogs data", blogs });
  } catch (err) {
    console.error("Error fetching blogs:", err);
    res.status(500).json({ error: "Internal server error" });
  }
};

exports.findOne = async (req, res) => {
  const id = req.params._id;
  try {
    const blog = await blogService.findBlogById(id);
    if (!blog) {
      return res.status(400).json({ message: "No blog found with id: " + id });
    }
    res.json({ message: "Data found", blog });
  } catch (err) {
    console.error("Error fetching blog by id:", err);
    res.status(500).json({ error: "Internal server error" });
  }
};
```

```
exports.update = async (req, res) => {
  const id = req.params.id;
  const updateData = req.body;
  try {
    const result = await blogService.updateBlog(id, updateData);
    if (!result) {
      return res.status(400).json({ message: "No blog found with id: " + id });
    }
    res.json({ message: "Blog updated successfully" });
  } catch (err) {
    console.error("Error updating blog:", err);
    res.status(500).json({ error: "Internal server error" });
  }
};

exports.delete = async (req, res) => {
  const id = req.params.id;
  try {
    const result = await blogService.deleteBlog(id);
    if (!result) {
      return res.status(400).json({ message: "No blog found with id: " + id });
    }
    res.json({ message: "Blog deleted successfully" });
  } catch (err) {
    console.error("Error deleting blog:", err);
    res.status(500).json({ error: "Internal server error" });
  }
};
```

blog/blog.model.js

```
const mongoose = require("mongoose");

var schema = new mongoose.Schema(
  {
    title: {
      type: String,
      required: true,
    },
    description: {
      type: String,
      required: true,
    },
    author: {
      type: String,
      required: true,
    },
    date: {
      type: Date,
      default: Date.now(),
```

```
      required: true,
    }
  },
  {
    timestamps: true,
  }
);

var blog = new mongoose.model("exp_6_blog", schema);
module.exports = blog;
```

blog/blog.routes.js

```
const blog = require("../blog/blog.controller");
const express = require("express");
const router = express.Router();

router.post("/", blog.create);
router.get("/", blog.findAll);
router.get("/:id", blog.findOne);
router.put("/:id", blog.update);
router.delete("/:id", blog.delete);
module.exports = router;
```

blog/blog.services.js

```
const BlogModel = require("../blog/blog.model");

exports.createBlog = async (title, description, author , date) => {
  const blog = new BlogModel({
    title,
    description,
    author,
    date
  });
  return await blog.save();
};

exports.findAllBlogs = async () => {
  return await BlogModel.find();
};

exports.findBlogById = async (id) => {
  return await BlogModel.findById(id);
};

exports.updateBlog = async (id, updateData) => {
  return await BlogModel.findByIdAndUpdate(id, updateData, {
```

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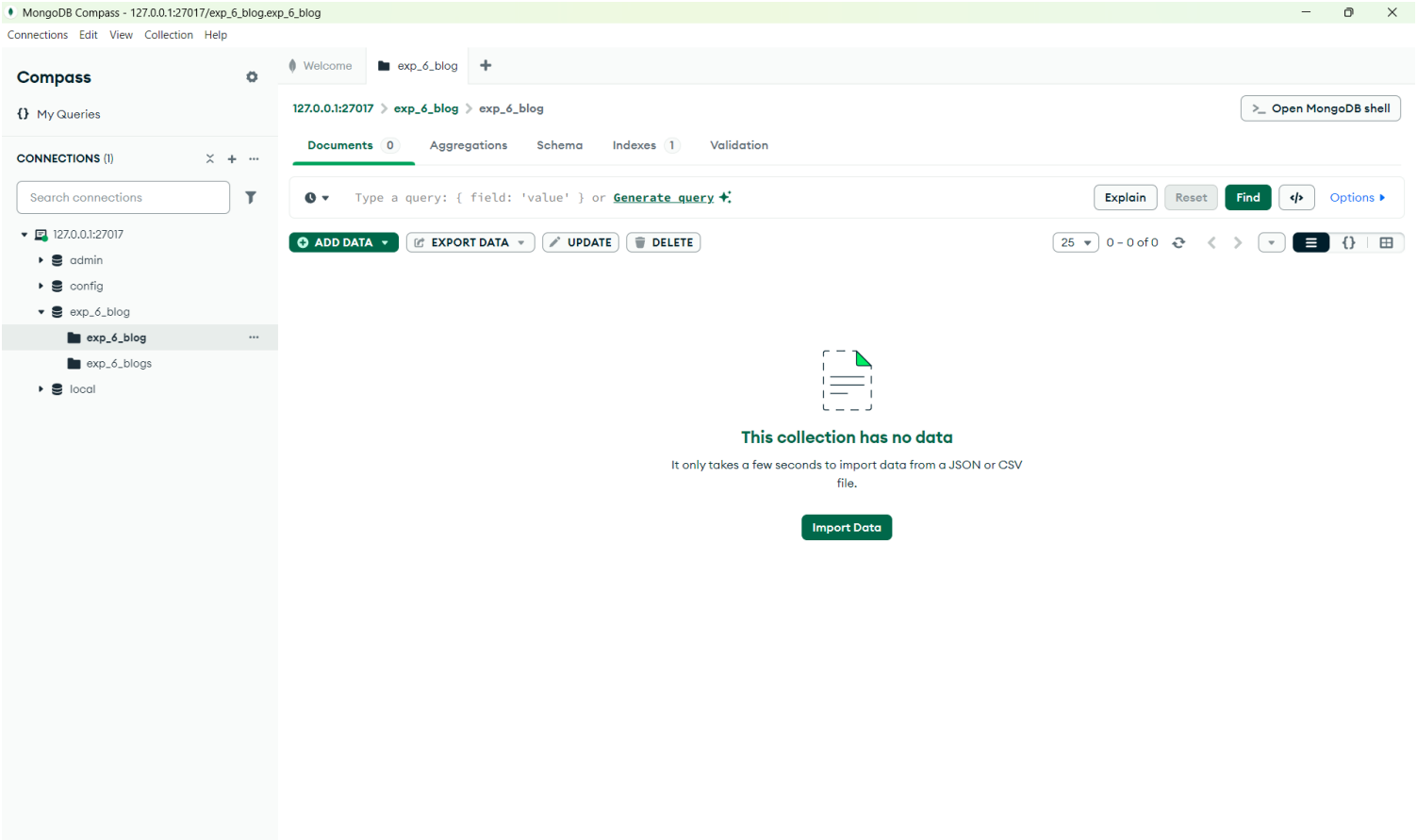
```
    useFindAndModify: false,
  });
};

exports.deleteBlog = async (id) => {
  return await BlogModel.findByIdAndDelete(id);
};
```

Output :-



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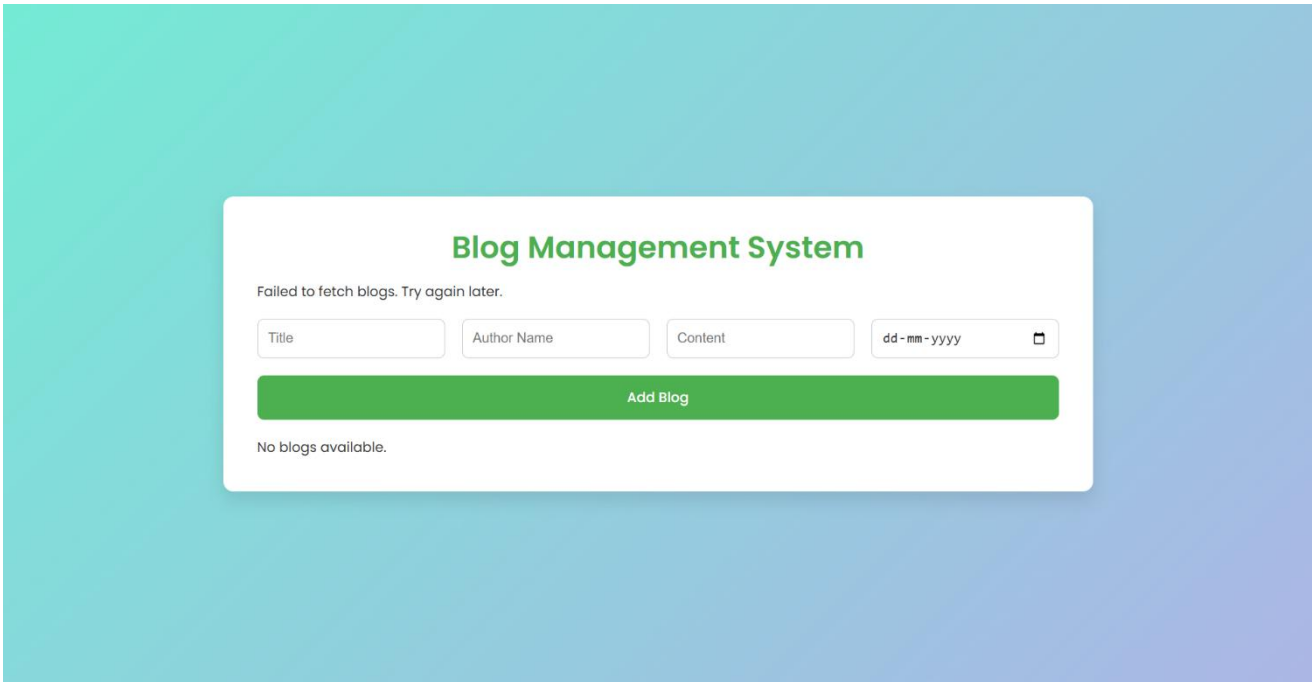

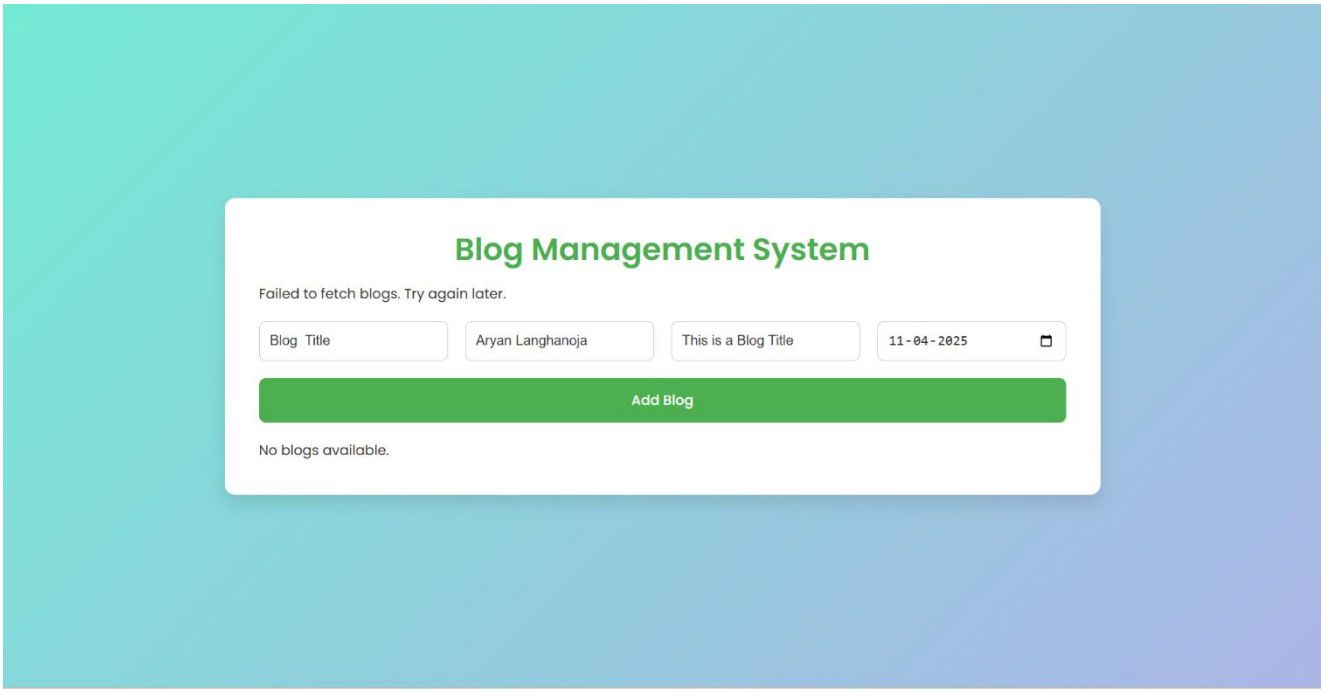

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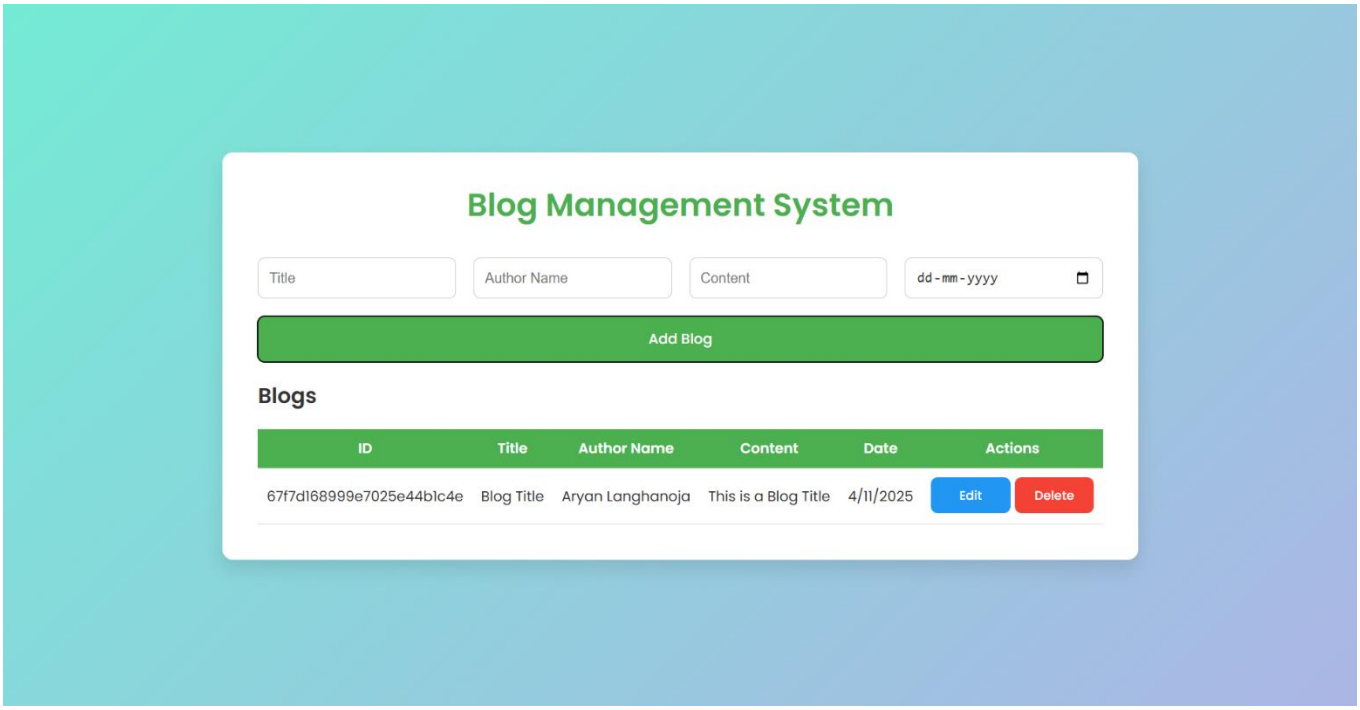

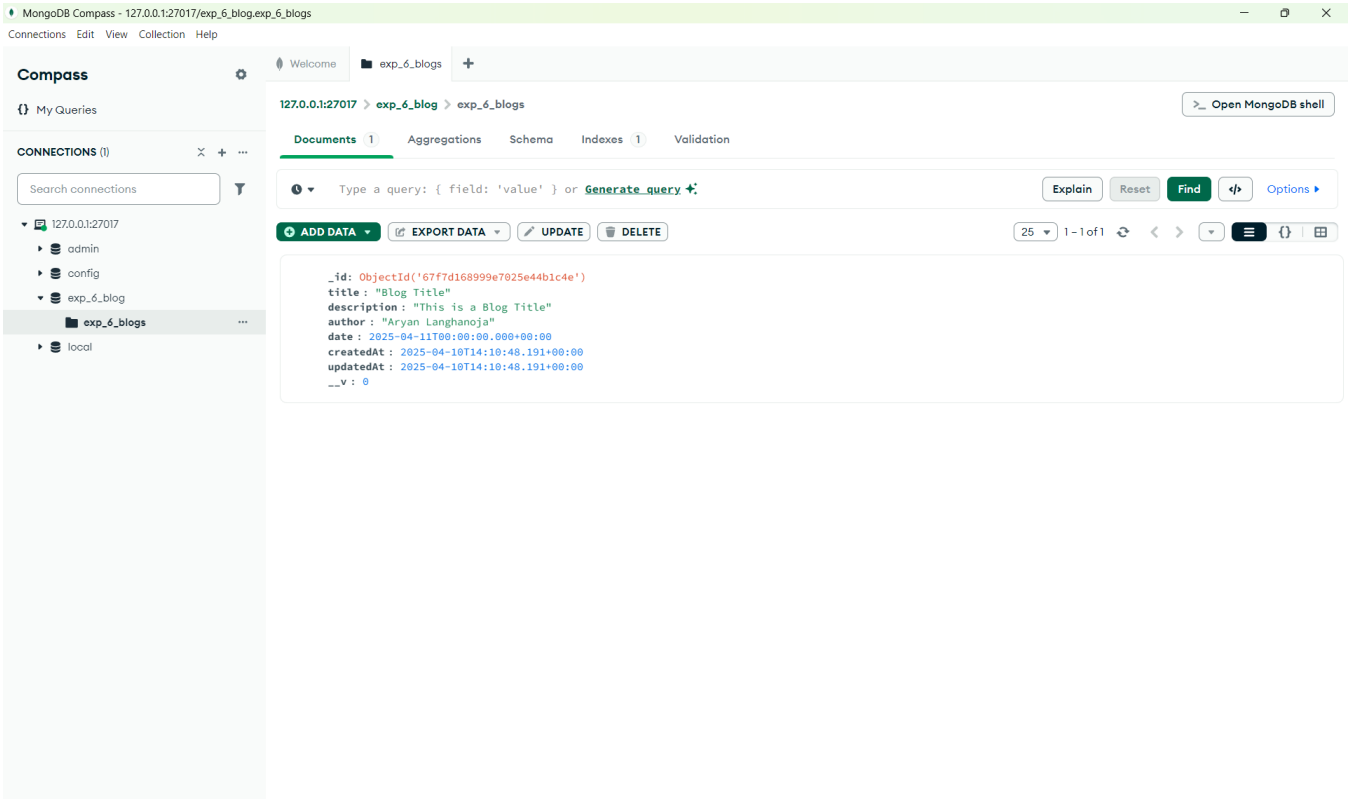

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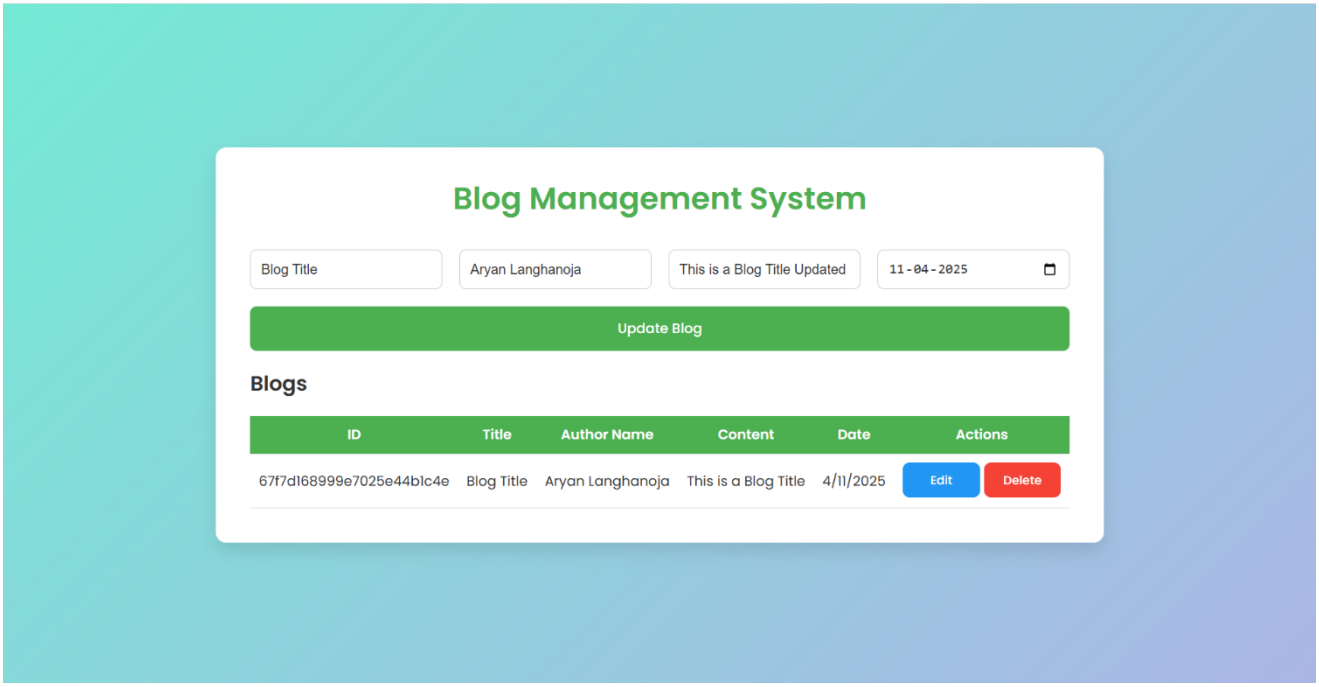

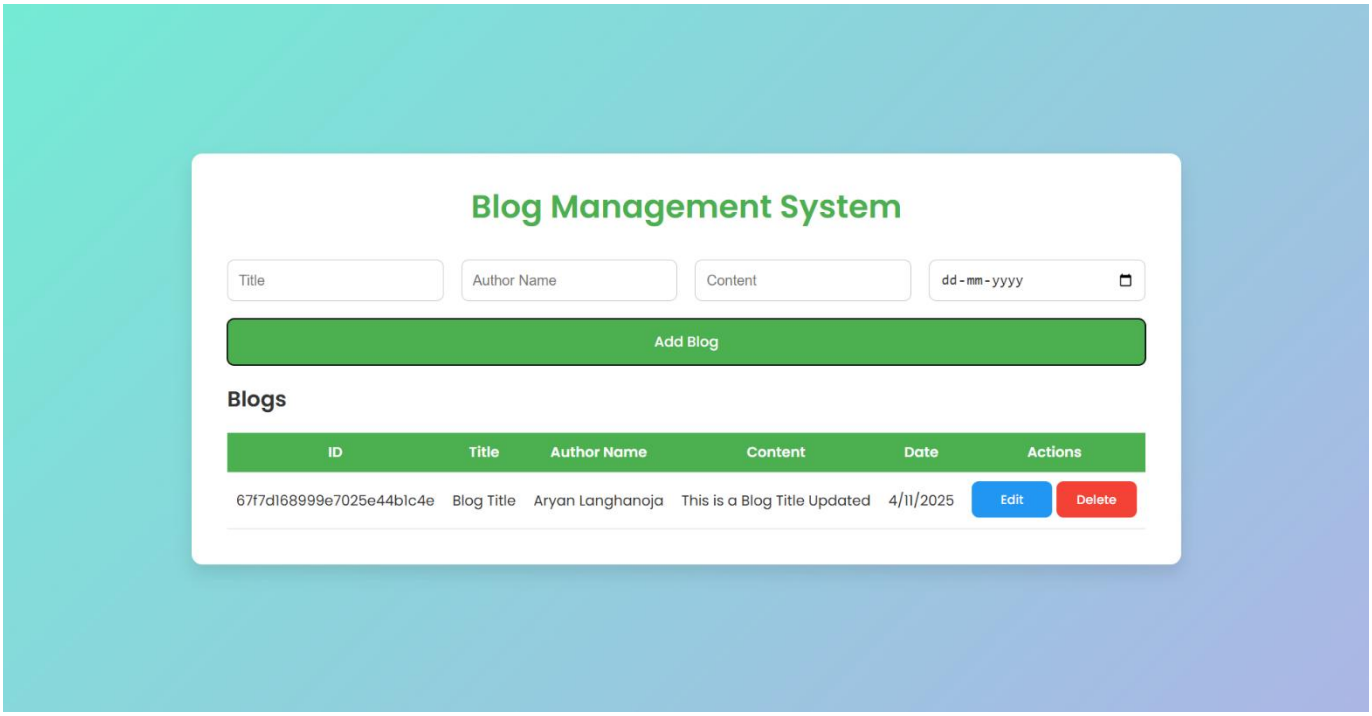

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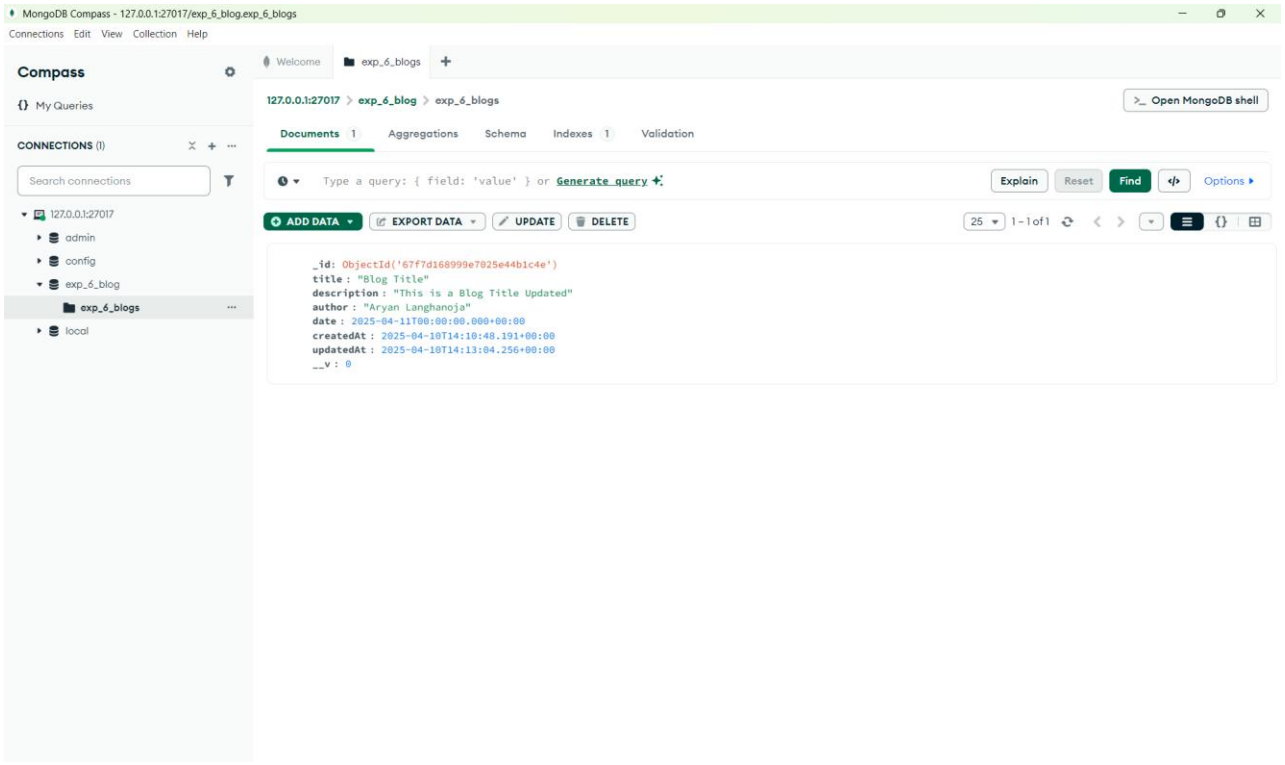

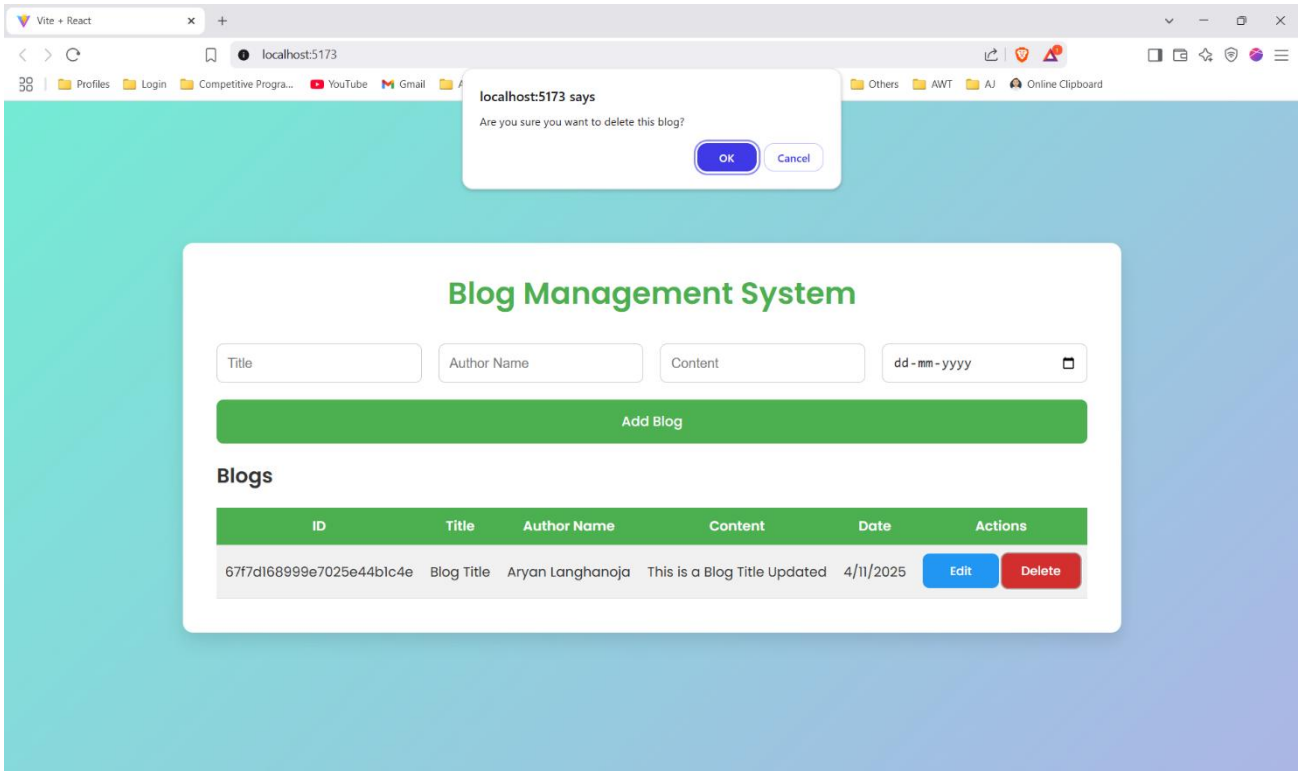
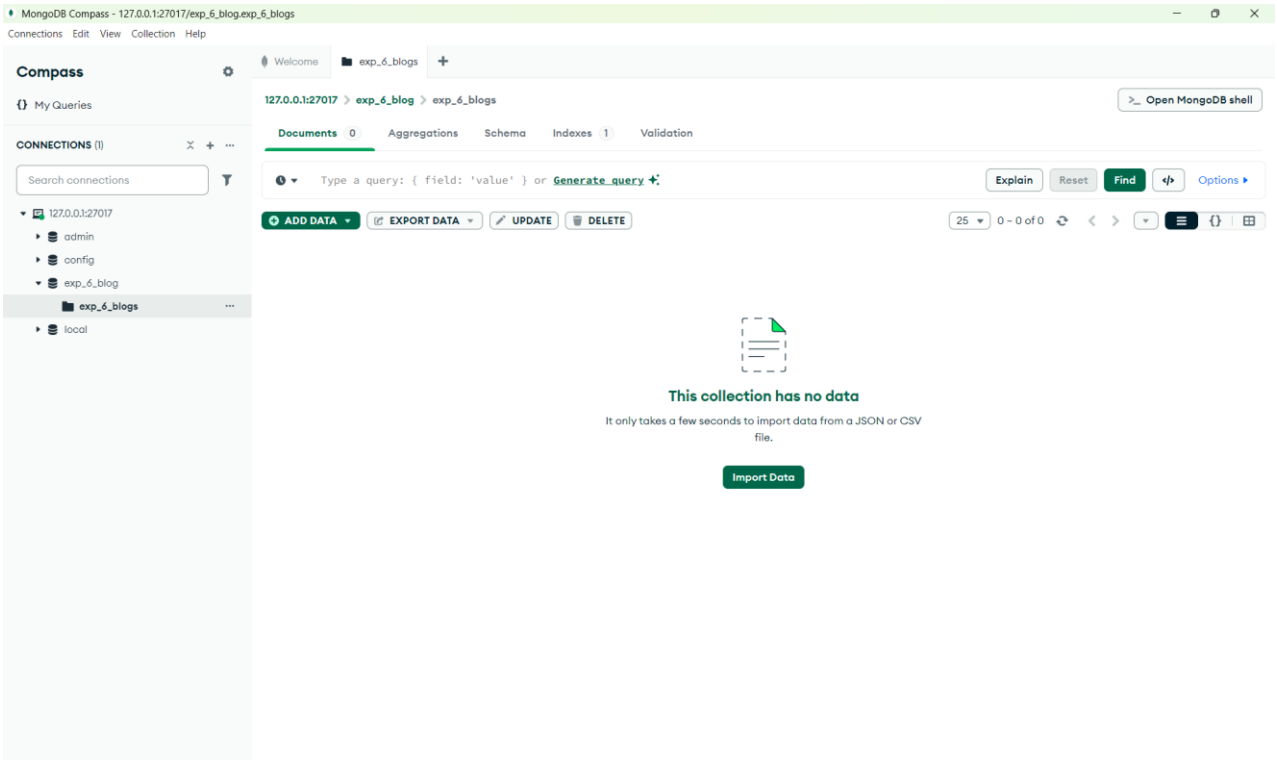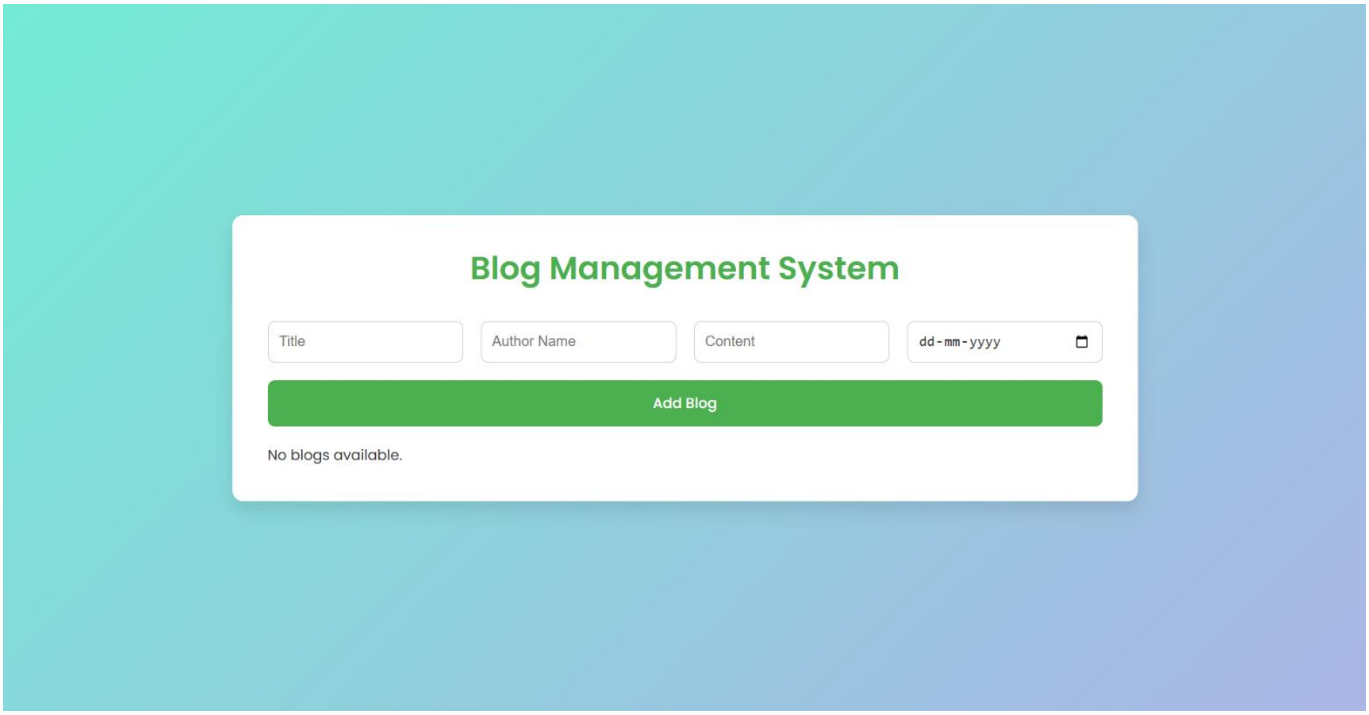
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