

## Full React.js + Express.js CRUD Application Setup:-

>\_MONGOSH

> db["records"].find()

<

> use mydb

< switched to db mydb

> db.services.insertOne({

name: "Graphic Design",

description: "Creating visual designs and branding materials"

});

< {

acknowledged: true,

insertedId: ObjectId('6899931116c1c29c9e9dfa2a')

}

> db.services.insertMany([

{

name: "Graphic Design",

description: "Creating visual designs and branding materials"

},

{

name: "Website Development",

description: "Full-stack website development using MERN stack"

},

{

name: "Mobile App Development",

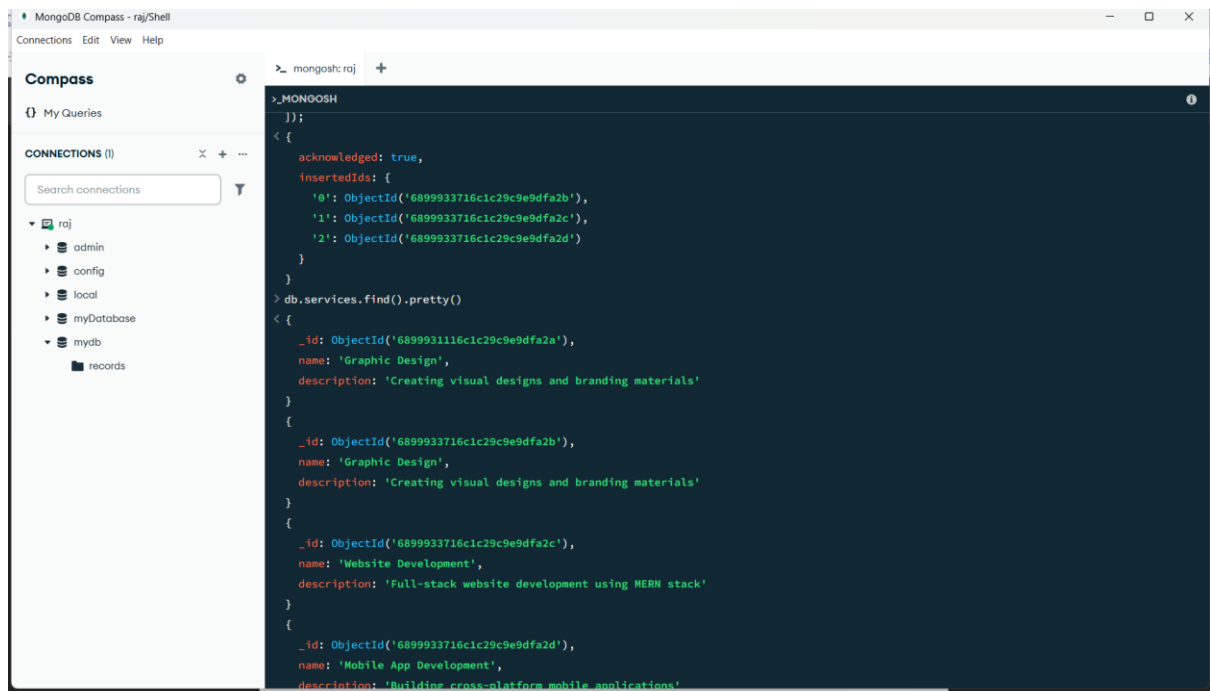
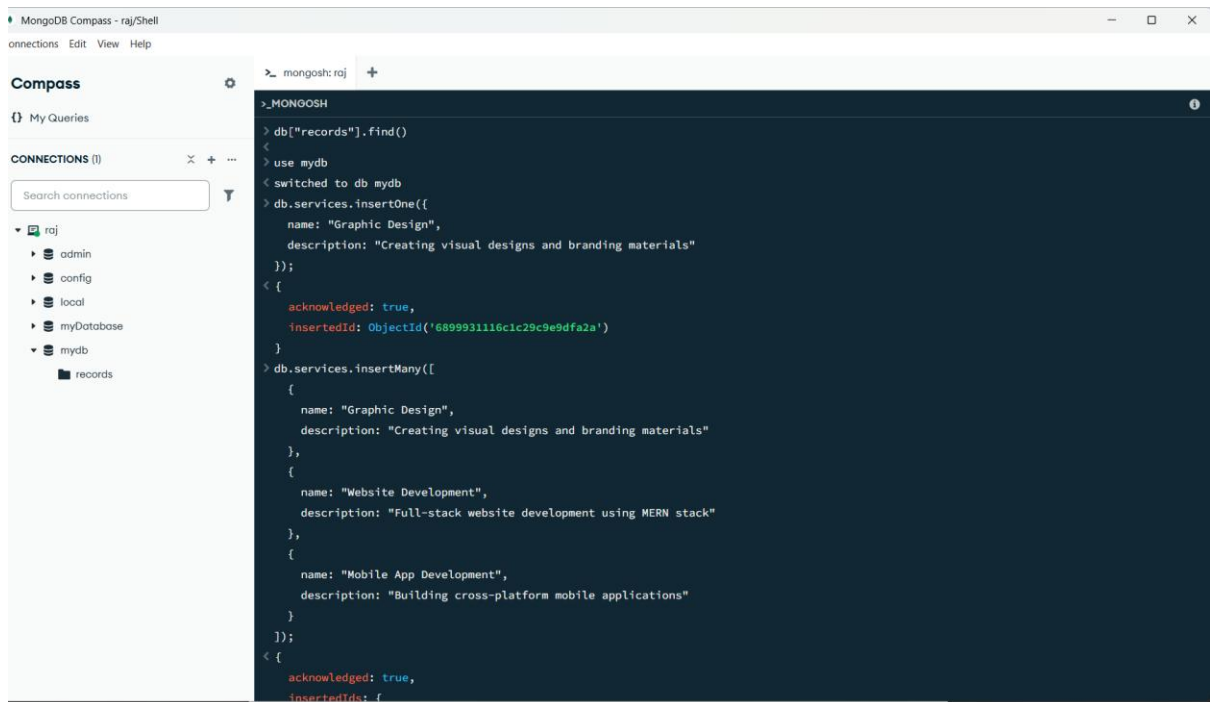
description: "Building cross-platform mobile applications"

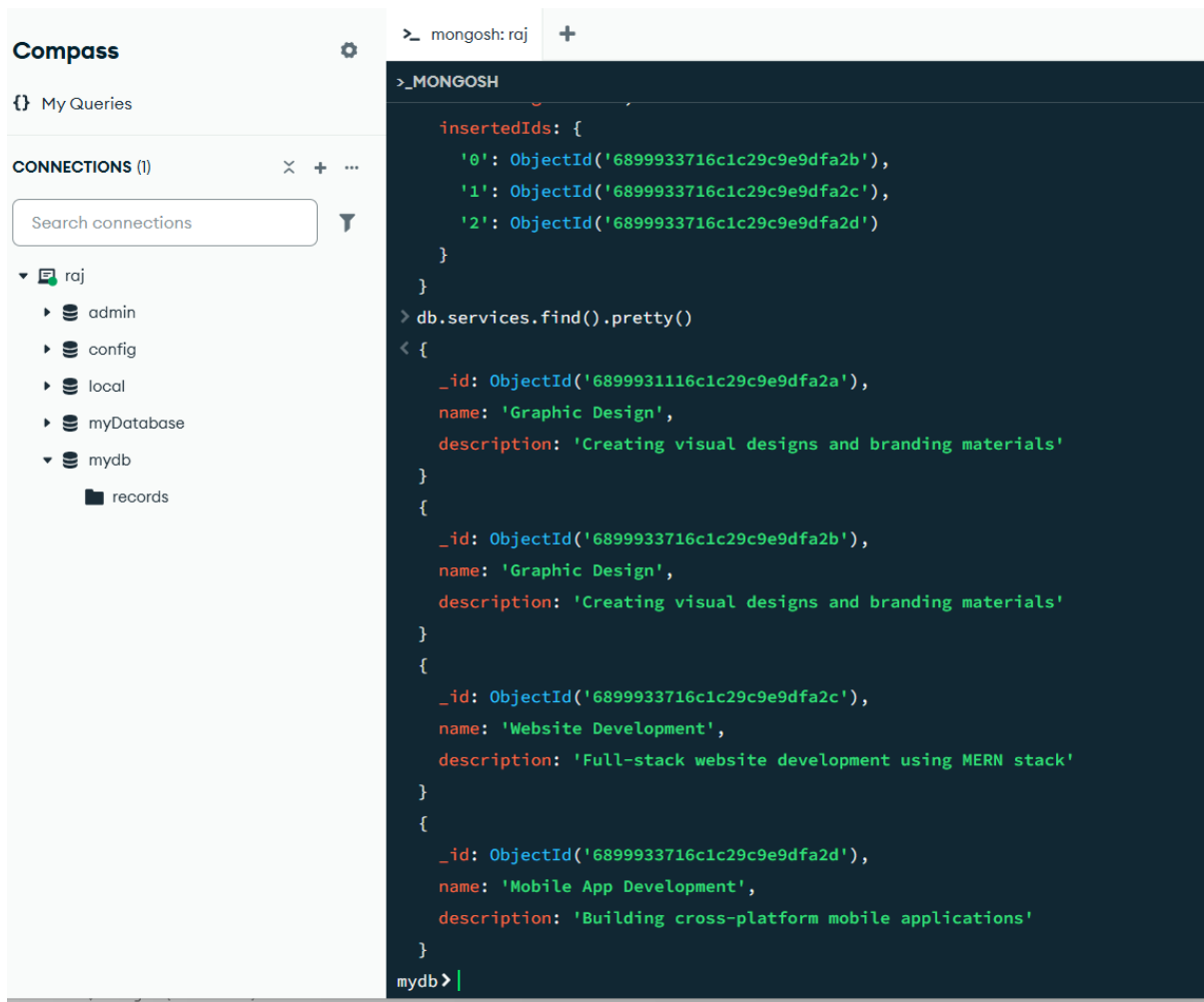
}

]);

< {

acknowledged: true,





**Express Js Backend Code:-**

**C:\Users\RAJ SINGH>D:**

**D:\>mkdir express-backend**

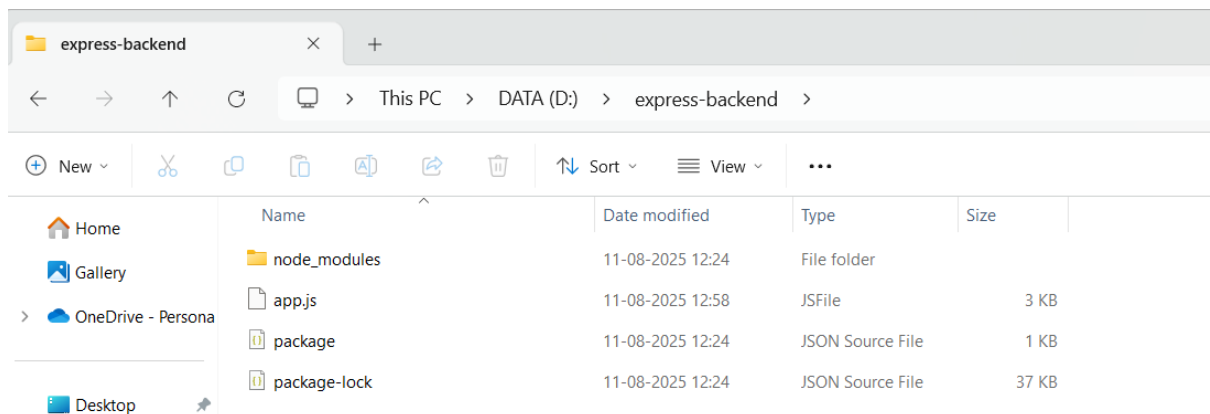
**D:\>cd express-backend**

**D:\express-backend>npm init -y**

**D:\express-backend>npm install express**

**D:\express-backend>npm install cors**

## Project Folder (express-backend):-



### app.js:-

```
// server.js
```

```
const express = require('express');
```

```
const cors = require('cors');
```

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

```
const app = express();
```

```
const PORT = 5000;
```

```
// Middleware
```

```
app.use(cors());
```

```
app.use(express.json());
```

```
// MongoDB connection
```

```
const mongoURI = 'mongodb://localhost:27017/mydb';
```

```
mongoose.connect(mongoURI, { useNewUrlParser: true, useUnifiedTopology:  
true })
```

```
.then(() => console.log('MongoDB connected'))
```

```
.catch(err => console.log('MongoDB connection error:', err));
```

```
// Schema & Model

const serviceSchema = new mongoose.Schema({
  name: String,
  description: String
});

const Service = mongoose.model('Service', serviceSchema);

/* ----- CRUD Routes ----- */

// CREATE
app.post('/api/services', async (req, res) => {
  try {
    const { name, description } = req.body;
    const newService = new Service({ name, description });
    await newService.save();
    res.status(201).json(newService);
  } catch (err) {
    res.status(500).json({ message: 'Failed to create service', error: err });
  }
});

// READ (All)
app.get('/api/services', async (req, res) => {
  try {
    const services = await Service.find();
```

```
    res.json(services);
  } catch (err) {
    res.status(500).json({ message: 'Failed to fetch services', error: err });
  }
});
```

// READ (Single)

```
app.get('/api/services/:id', async (req, res) => {
  try {
    const service = await Service.findById(req.params.id);
    if (!service) return res.status(404).json({ message: 'Service not found' });
    res.json(service);
  } catch (err) {
    res.status(500).json({ message: 'Failed to fetch service', error: err });
  }
});
```

// UPDATE

```
app.put('/api/services/:id', async (req, res) => {
  try {
    const { name, description } = req.body;
    const updatedService = await Service.findByIdAndUpdate(
      req.params.id,
      { name, description },
      { new: true }
    );
  }
});
```

```
    if (!updatedService) return res.status(404).json({ message: 'Service not found' });
```

```
    res.json(updatedService);
```

```
  } catch (err) {
```

```
    res.status(500).json({ message: 'Failed to update service', error: err });
```

```
  }
```

```
});
```

```
// DELETE
```

```
app.delete('/api/services/:id', async (req, res) => {
```

```
  try {
```

```
    const deletedService = await Service.findByIdAndDelete(req.params.id);
```

```
    if (!deletedService) return res.status(404).json({ message: 'Service not found' });
```

```
    res.json({ message: 'Service deleted' });
```

```
  } catch (err) {
```

```
    res.status(500).json({ message: 'Failed to delete service', error: err });
```

```
  }
```

```
});
```

```
/* ----- */
```

```
app.listen(PORT, () => {
```

```
  console.log(`Server running at http://localhost:${PORT}`);
```

```
});
```

Output:

http://localhost:5000/api/services

D:\express-backend>node app.js



## React Js Front-end Code

C:\Users\RAJ SINGH>D:

D:\>npx create-react-app react-pages-app

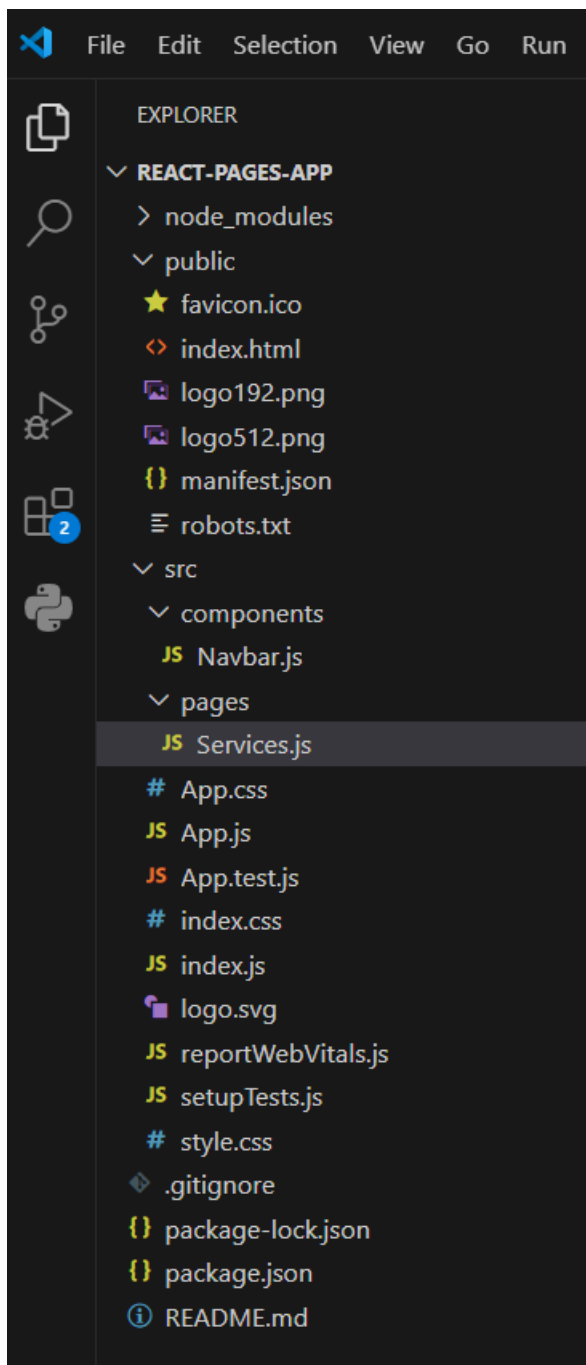
D:\>cd react-pages-app

D:\react-pages-app>npm install react-router-dom

D:\react-pages-app>npm install axios

## Project Folder Name (react-pages-app)





## App.js:-

```
import logo from './logo.svg';
import './App.css';
import { BrowserRouter as Router, Routes, Route } from 'react-router-dom';
import Navbar from './components/Navbar'; // ✔Import Navbar
import Services from './pages/Services'; // ✔Import Services
function App() {
```

```

return (
  <>
    <h1> Welcome Home </h1>

    <Router>
    <Navbar />
    <Routes>

      <Route path="/services" element={<Services />} /> {/* ✔This is it */}

    </Routes>
    </Router>
  </>
);
}
export default App;

```

## Services.js

```

// src/pages/Services.js
import { useEffect, useState } from 'react';
import Navbar from '../components/Navbar';
import '../App.css';
import axios from 'axios';

function Services() {
  const [services, setServices] = useState([]);
  const [form, setForm] = useState({ name: '', description: '' });
  const [editId, setEditId] = useState(null);

  // Fetch all services
  const fetchServices = () => {
    axios.get('http://localhost:5000/api/services')
      .then((response) => setServices(response.data))
      .catch((error) => console.error('Error fetching services:', error));
  };

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

  // Handle input change
  const handleChange = (e) => {

```

```

    setForm({ ...form, [e.target.name]: e.target.value });
  };

  // Add or Update service
  const handleSubmit = (e) => {
    e.preventDefault();
    if (editId) {
      // Update
      axios.put(`http://localhost:5000/api/services/${editId}`, form)
        .then(() => {
          setEditId(null);
          setForm({ name: '', description: '' });
          fetchServices();
        })
        .catch(err => console.error(err));
    } else {
      // Create
      axios.post('http://localhost:5000/api/services', form)
        .then(() => {
          setForm({ name: '', description: '' });
          fetchServices();
        })
        .catch(err => console.error(err));
    }
  };

  // Edit button click
  const handleEdit = (service) => {
    setEditId(service._id);
    setForm({ name: service.name, description: service.description });
  };

  // Delete service
  const handleDelete = (id) => {
    if (window.confirm('Are you sure you want to delete this service?')) {
      axios.delete(`http://localhost:5000/api/services/${id}`)
        .then(() => fetchServices())
        .catch(err => console.error(err));
    }
  };

  return (
    <>
    <Navbar />
    <h1>Our Services</h1>

    </* Form for Add / Edit */>
    <form onSubmit={handleSubmit} style={{ marginBottom: '20px' }}>

```

```

    <input
      type="text"
      name="name"
      placeholder="Service Name"
      value={form.name}
      onChange={handleChange}
      required
    />
    <input
      type="text"
      name="description"
      placeholder="Service Description"
      value={form.description}
      onChange={handleChange}
      required
    />
    <button type="submit">{editId ? 'Update Service' : 'Add
Service'}</button>
    {editId && <button onClick={() => { setEditId(null); setForm({ name:
'', description: '' }); }}>Cancel</button>}
  </form>

  { /* Display Services */ }
  {services.length === 0 ? (
    <p>Loading services...</p>
  ) : (
    <ul>
      {services.map(service => (
        <li key={service._id}>
          <h3>{service.name}</h3>
          <p>{service.description}</p>
          <button onClick={() => handleEdit(service)}>Edit</button>
          <button onClick={() =>
handleDelete(service._id)}>Delete</button>
        </li>
      ))}
    </ul>
  )}
</>
);
}

export default Services;

```

## Navbar.js:-

```
import { Link } from 'react-router-dom';
function Navbar() {
  return (
    <nav style={{ padding: '1rem', borderBottom: '1px solid #ccc' }}>
      <Link to="/">Home</Link> |{" "}
      <Link to="/services">Services</Link> |{" "}

    </nav>
  );
}
export default Navbar;
```

## style.css:-

```
body {
  font-family: Arial, sans-serif;
  background-color: #77a8e8;
  margin: 0;
  padding: 0;
}

h1 {
  color: darkblue;
}
```

## app.css:-

```
@import "../style.css";

.App {
  text-align: center;
}

.App-logo {
  height: 40vmin;
  pointer-events: none;
}

@media (prefers-reduced-motion: no-preference) {
  .App-logo {
    animation: App-logo-spin infinite 20s linear;
  }
}

.App-header {
  background-color: #282c34;
  min-height: 100vh;
  display: flex;
  flex-direction: column;
  align-items: center;
  justify-content: center;
  font-size: calc(10px + 2vmin);
  color: white;
}
```

## Output :-

<http://localhost:3000/services>

