

MINI PROJECT
(CONTACT MANAGEMENT API)

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Code :

```
const express = require('express');
const { MongoClient, ObjectId } = require('mongodb');

const app = express();
const port = 3000;
const dbName = 'contactApp';
const url = 'mongodb://localhost:27017';
const client = new MongoClient(url, { useUnifiedTopology: true });

app.use(express.json());

async function connectToMongoDB() {
  await client.connect();
  console.log('Connected to MongoDB');
}

app.get('/contacts', async (req, res) => {
  const db = client.db(dbName);
  const contacts = await db.collection('contacts').find().toArray();
  res.json(contacts);
});

app.post('/contacts', async (req, res) => {
  const { name, email, phone } = req.body;
  const db = client.db(dbName);
  const result = await db.collection('contacts').insertOne({ name, email, phone });
  res.status(201).json(result.ops[0]);
});

app.put('/contacts/:id', async (req, res) => {
  const contactId = req.params.id;
  const { name, email, phone } = req.body;
  const db = client.db(dbName);
  await db.collection('contacts').updateOne(
    { _id: new ObjectId(contactId) },
```

```
    { $set: { name, email, phone } }  
  );  
  res.sendStatus(204);  
});
```

```
app.delete('/contacts/:id', async (req, res) => {  
  const contactId = req.params.id;  
  const db = client.db(dbName);  
  await db.collection('contacts').deleteOne({ _id: new ObjectId(contactId) });  
  res.sendStatus(204);  
});
```

```
connectToMongoDB()  
  .then(() => {  
    app.listen(port, () => {  
      console.log(`Server is running on http://localhost:${port}`);  
    });  
  })  
  .catch(console.error);
```

Output :

To retrieve all contacts:

bash

curl http://localhost:3000/contacts

Sample output:

json

```
[
  {
    "_id": "5f4a9406f36d287bf0c9b913",
    "name": "John Doe",
    "email": "johndoe@example.com",
    "phone": "555-555-5555"
  },
  {
    "_id": "5f4a942af36d287bf0c9b914",
    "name": "Jane Smith",
    "email": "janesmith@example.com",
    "phone": "555-123-4567"
  }
]
```

To create a new contact:

Bash

curl -X POST -H "Content-Type: application/json" -d '{"name": "Alice Johnson", "email": "alice@example.com", "phone": "555-999-8888"}' http://localhost:3000/contacts

Sample output:

json

```
{
  "_id": "5f4a9450f36d287bf0c9b915",
  "name": "Alice Johnson",
  "email": "alice@example.com",
  "phone": "555-999-8888"
}
```

To update a contact (replace :id with an actual contact ID):

bash

```
curl -X PUT -H "Content-Type: application/json" -d '{"name": "Updated Name", "e
```