Indian Festival Tracker (MongoDB CRUD Project)

Introduction to the Project

- MongoDB-only CRUD project for tracking Indian festivals.
- No external tech stack—purely database-focused.
- Helps understand document-based NoSQL concepts with real-world cultural relevance.
- Uses festivals from different Indian religions and regions.

MongoDB Installation (Ubuntu/Linux)

- 1. sudo apt update
- 2. wget -qO https://www.mongodb.org/static/pgp/server-6.0.asc | sudo apt-key add -
- 3. echo "deb [arch=amd64]
 https://repo.mongodb.org/apt/ubuntu focal/mongodb org/6.0 multiverse" | sudo tee
 /etc/apt/sources.list.d/mongodb-org-6.0.list
- 4. sudo apt update
- 5. sudo apt install -y mongodb-org
- 6. sudo systemctl start mongod
- 7. sudo systemctl enable mongod

Creating Database & Collection

- use festivalDB;
- db.createCollection("festivals");

Insert Sample Festival Data

- db.festivals.insertMany([
- { name: "Diwali", date: "2025-10-29", region: "All India", religion: "Hindu", ... },
- { name: "Eid-ul-Fitr", date: "2025-04-01", region: "All India", religion:
 - "Muslim", ... },
- ... 8 more festivals ...
-]);

READ: Query Festival Data

- db.festivals.find().pretty();
- db.festivals.find({ religion: "Hindu" }).pretty();
- db.festivals.find({ region: "Punjab" }).pretty();
- db.festivals.find({ date: { \$gt: "2025-06-01" } }).pretty();

CREATE: Add Festival

```
db.festivals.insertOne({
 name: "Makar Sankranti", date: "2025-01-15",
region: "Pan India", religion: "Hindu",
 description: "Sun's transition into Capricorn",
is_national_holiday: false,
 popular_activities: ["Kite flying", "Tilgul"]
});
```

UPDATE: Modify Festival Data

```
db.festivals.updateOne(
    { name: "Diwali" },
    { $set: { description: "Victory of light over darkness" } } 
);
db.festivals.updateOne(
    { name: "Holi" },
    { $push: { popular_activities: "Thandai" } }
);
```

DELETE: Remove Festival(s)

db.festivals.deleteOne({ name: "Makar Sankranti" });
db.festivals.deleteMany({ is_national_holiday: false
});

Activities

- Insert 5 new festivals using `insertOne`
- Query by religion & region using `find()`
- Edit festival date/description using `updateOne()`
- Add activities with `\$push`
- Remove festivals with `deleteOne` or `deleteMany`
- Bonus: Remove past festivals with `\$lt` on `date`