Submitted by:
Malaika Zulqarnain

PROJECT: Offline Music Player App - Database Backend
TECH STACK: Node.js, Express, MongoDB, Mongoose

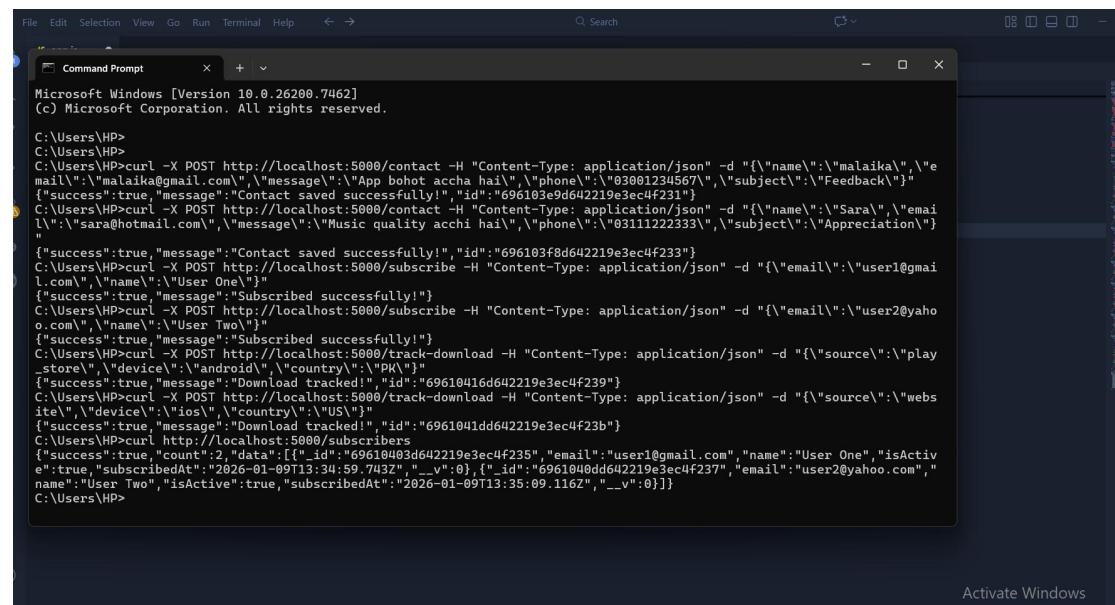**DATABASE: offline_music**
CONNECTION: mongodb://localhost:27017/offline_music
TOTAL COLLECTIONS: 3

COLLECTIONS OVERVIEW:
├── analytics
│ └── Tracks app downloads by source, device, country
├── contacts │ └── Stores user contact form submissions
└── subscribers
└── Manages newsletter email subscriptions

Microsoft Windows [Version 10.0.26200.7462]
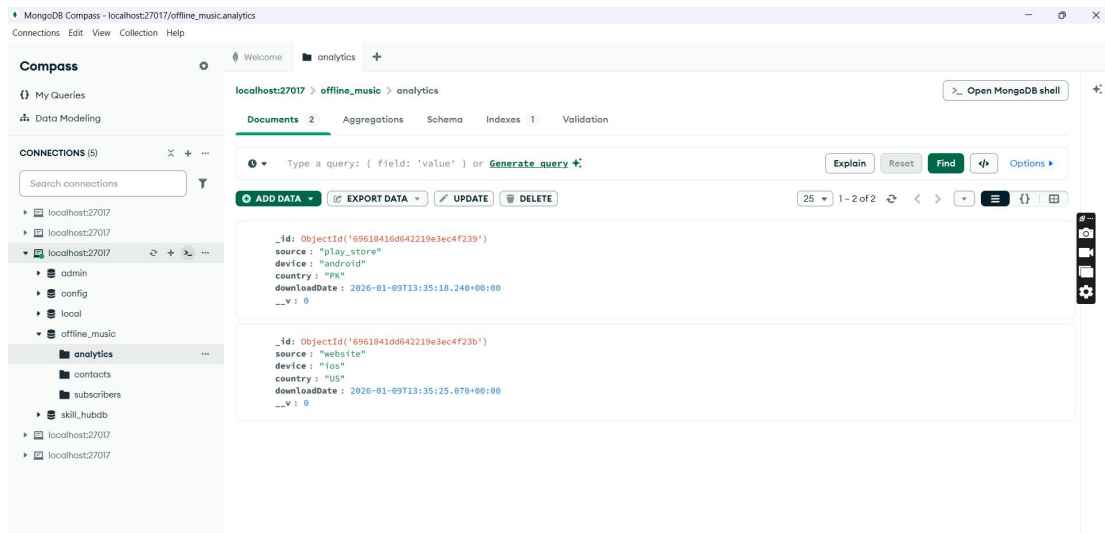(c) Microsoft Corporation. All rights reserved.

C:\Users\HP>
C:\Users\HP>
C:\Users\HP>curl -X POST http://localhost:5000/contact -H "Content-Type: application/json" -d "{\"name\":\"malaika\",\"email\":\"malaika@gmail.com\",\"message\":\"App bohot accha hai\",\"phone\":\"03001234567\",\"subject\":\"Feedback\"}"
{"success":true,"message":"Contact saved successfully!","id":"696103e9d642219e3ec4f231"}
C:\Users\HP>curl -X POST http://localhost:5000/contact -H "Content-Type: application/json" -d "{\"name\":\"Sara\",\"email\":\"sara@hotmail.com\",\"message\":\"Music quality acchi hai\",\"phone\":\"03111222333\",\"subject\":\"Appreciation\"}"
{"success":true,"message":"Contact saved successfully!","id":"696103f8d642219e3ec4f233"}
C:\Users\HP>curl -X POST http://localhost:5000/subscribe -H "Content-Type: application/json" -d "{\"email\":\"user1@gmail.com\",\"name\":\"User One\"}"
{"success":true,"message":"Subscribed successfully!"}
C:\Users\HP>curl -X POST http://localhost:5000/subscribe -H "Content-Type: application/json" -d "{\"email\":\"user2@yahoo.com\",\"name\":\"User Two\"}"
{"success":true,"message":"Subscribed successfully!"}
C:\Users\HP>curl -X POST http://localhost:5000/track-download -H "Content-Type: application/json" -d "{\"source\":\"play_store\",\"device\":\"android\",\"country\":\"PK\"}"
{"success":true,"message":"Download tracked!","id":"69610416d642219e3ec4f239"}
C:\Users\HP>curl -X POST http://localhost:5000/track-download -H "Content-Type: application/json" -d "{\"source\":\"website\",\"device\":\"ios\",\"country\":\"US\"}"
{"success":true,"message":"Download tracked!","id":"6961041dd642219e3ec4f23b"}
C:\Users\HP>curl http://localhost:5000/subscribers
{"success":true,"count":2,"data":[{"_id":"696104403d642219e3ec4f235","email":"user1@gmail.com","name":"User One","isActive":true,"subscribedAt":"2026-01-09T13:34:59.743Z","__v":0},{"_id":"6961040dd642219e3ec4f237","email":"user2@yahoo.com","name":"User Two","isActive":true,"subscribedAt":"2026-01-09T13:35:09.116Z","__v":0}]}
C:\Users\HP>

Command Prompt - node app

```
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C:\Users\HP>cd C:\Users\HP\OneDrive\Desktop\music-app

C:\Users\HP\OneDrive\Desktop\music-app>node app.js
[dotenv@17.2.3] injecting env (2) from .env -- tip: 🔐 add observability to secrets: https://dotenvx.com/ops
🚀 Server running on: http://localhost:5000
📁 Your Folder: C:\Users\HP\OneDrive\Desktop\music-app
📱 Available APIs:
   • GET  /                    - Home page
   • POST /contact             - Save contact
   • GET  /contacts            - Get all contacts
   • GET  /contacts/search?email=... - Search contacts
   • POST /subscribe           - Newsletter subscribe
   • GET  /subscribers         - Get all subscribers
   • POST /track-download      - Track app download
   • GET  /analytics           - Get download analytics
✅ MongoDB Connected!
```

localhost:5000/contacts

etty-print ☐
{"success":true,"count":4,"data":[{"status":"pending","_id":"6960fbe8cdc88b8080981d05","name":"HP User","email":"hp@test.com","message":"Testing from HP desktop","date":"2026-01-09T13:00:24.518Z","__v":0},{"status":"pending","_id":"6960ff39cdc88b8080981d08","name":"Ali","email":"ali@test.com","message":"App accha hai","date":"2026-01-09T13:14:33.312Z","__v":0},{"_id":"696103e9d642219e3ec4f231","name":"malaika","email":"malaika@gmail.com","message":"App bohot accha hai","phone":"0300123456","subject":"Feedback","status":"pending","date":"2026-01-09T13:34:33.535Z","__v":0},{"_id":"696103f8d642219e3ec4f233","name":"Sara","email":"sara@hotmail.com","message":"Music quality acchi hai","phone":"03111222333","subject":"Appreciation","status":"pending","date":"2026-01-09T13:34:48.879Z","__v":0}]}

MongoDB Compass - localhost:27017/offline_music.analytics

Connections   Edit   View   Collection   Help

Compass
{} My Queries
⟐ Data Modeling

CONNECTIONS (5)

Welcome   📁 analytics

localhost:27017 > offline_music > analytics

Documents 2   Aggregations   Schema   Indexes 1   Validation

Type a query: { field: 'value' } or Generate query ✦   Explain   Reset   Find   </>   Options ▶

ADD DATA ▾   EXPORT DATA ▾   UPDATE   DELETE

25 ▾ 1 – 2 of 2

```
_id: ObjectId('69610416d642219e3ec4f239')
source : "play_store"
device : "android"
country : "PK"
downloadDate : 2026-01-09T13:35:18.240+00:00
__v : 0

_id: ObjectId('6961041dd642219e3ec4f23b')
source : "website"
device : "ios"
country : "US"
downloadDate : 2026-01-09T13:35:25.070+00:00
__v : 0
```

CONNECTIONS list:
- localhost:27017
- localhost:27017
- localhost:27017
  - admin
  - config
  - local
  - offline_music
    - analytics
    - contacts
    - subscribers
  - skill_hubdb
- localhost:27017
- localhost:27017

localhost:27017 > offline_music > contacts

Documents **4**   Aggregations   Schema   Indexes **1**   Validation

>_ Open MongoDB shell

Type a query: { field: 'value' } or **Generate query**

Explain   Reset   Find   Options ▸

⊕ ADD DATA ▾   EXPORT DATA ▾   UPDATE   DELETE

25 ▾   1-4 of 4

```
_id: ObjectId('6960fbe8cdc88b8080981d05')
name : "HP User"
email : "hp@test.com"
message : "Testing from HP desktop"
date : 2026-01-09T13:00:24.518+00:00
__v : 0
```

```
_id: ObjectId('6960ff39cdc88b8080981d08')
name : "ayesha"
email : "ali@test.com"
message : "App accha hai"
date : 2026-01-09T13:14:33.312+00:00
__v : 0
```

```
_id: ObjectId('696103e9d642219e3ec4f231')
name : "malaika"
email : "malaika@gmail.com"
message : "App bohot accha hai"
phone : "03001234567"
subject : "Feedback"
status : "pending"
date : 2026-01-09T13:34:33.535+00:00
__v : 0
```

```
_id: ObjectId('696103f8d642219e3ec4f233')
```

MongoDB Compass - localhost:27017/offline_music.subscribers   — ▢ ✕

Connections Edit View Collection Help

Compass ⚙

{} My Queries

▦ Data Modeling

CONNECTIONS (5)   ⤢ + ⋯

Search connections

▸ ⊟ localhost:27017
▸ ⊟ localhost:27017
▾ ⊟ localhost:27017
  ▸ ⬮ admin
  ▸ ⬮ config
  ▸ ⬮ local
  ▾ ⬮ offline_music
    ▪ analytics
    ▪ contacts
    ▪ subscribers   ⋯
  ▸ ⬮ skill_hubdb
▸ ⊟ localhost:27017
▸ ⊟ localhost:27017

localhost:27017 > offline_music > subscribers

>_ Open MongoDB shell

Documents **2**   Aggregations   Schema   Indexes **2**   Validation

Type a query: { field: 'value' } or **Generate query**

Explain   Reset   Find   Options ▸

⊕ ADD DATA ▾   EXPORT DATA ▾   UPDATE   DELETE

25 ▾   1-2 of 2

```
_id: ObjectId('69610403d642219e3ec4f235')
email : "user1@gmail.com"
name : "User One"
isActive : true
subscribedAt : 2026-01-09T13:34:59.743+00:00
__v : 0
```

```
_id: ObjectId('69610400dd642219e3ec4f237')
email : "user2@yahoo.com"
name : "User Two"
isActive : true
subscribedAt : 2026-01-09T13:35:09.116+00:00
__v : 0
```
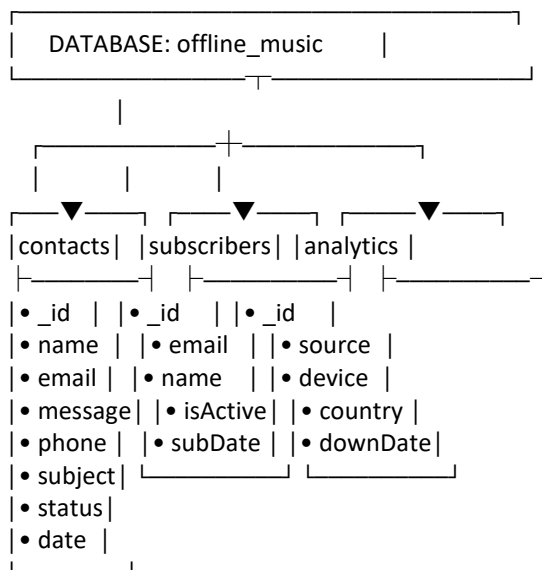
```
Microsoft Windows [Version 10.0.26200.7462]
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C:\Users\HP>curl http://localhost:5000
🎵 Music App Working from C:\Users\HP\OneDrive\Desktop\music-app
C:\Users\HP>curl http://localhost:5000/contacts
{"success":true,"count":4,"data":[{"status":"pending","_id":"6960fbe8cdc88b8080981d05","name":"HP User","email":"hp@test
.com","message":"Testing from HP desktop","date":"2026-01-09T13:00:24.518Z","__v":0},{"status":"pending","_id":"6960ff39
cdc88b8080981d08","name":"ayesha","email":"ali@test.com","message":"App accha hai","date":"2026-01-09T13:14:33.312Z","__
v":0},{"_id":"696103e9d642219e3ec4f231","name":"malaika","email":"malaika@gmail.com","message":"App bohot accha hai","ph
one":"03001234567","subject":"Feedback","status":"pending","date":"2026-01-09T13:34:33.535Z","__v":0},{"_id":"696103f8d6
42219e3ec4f233","name":"Sara","email":"sara@hotmail.com","message":"Music quality acchi hai","phone":"03111222333","subj
ect":"Appreciation","status":"pending","date":"2026-01-09T13:34:48.879Z","__v":0}]}
C:\Users\HP>curl "http://localhost:5000/contacts/search?email=malaika@gmail.com"
{"success":true,"count":1,"data":[{"_id":"696103e9d642219e3ec4f231","name":"malaika","email":"malaika@gmail.com","messag
e":"App bohot accha hai","phone":"03001234567","subject":"Feedback","status":"pending","date":"2026-01-09T13:34:33.535Z"
,"__v":0}]}
C:\Users\HP>
```

Database Schema Diagram

```
┌──────────────────────────────────┐
│    DATABASE: offline_music        │
└───────────────────┬──────────────┘
           │
      ┌─────────────┼──────────────┐
      │     │     │
    ┌──▼───┐   ┌──▼───┐   ┌──▼───┐
    |contacts|  |subscribers|  |analytics|
    ├────────┤  ├──────────┤  ├──────────┤
    |• _id   |  |• _id    |  |• _id     |
    |• name  |  |• email  |  |• source  |
    |• email |  |• name   |  |• device  |
    |• message| |• isActive| |• country |
    |• phone |  |• subDate |  |• downDate|
    |• subject| └──────────┘  └──────────┘
    |• status|
    |• date  |
    └────────┘
```

RELATIONSHIPS:
• contacts ──┐
• subscribers─┤ All in same database
• analytics ─┘