



# Quick Setup Guide for NexaNova LMS

## Step-by-Step Installation

### 1 Clone or Download Files

Make sure you have all these files in one folder:

```
nexanova/  
├── index.html  
├── style.css  
├── app.js  
├── server.js  
├── package.json  
└── README.md
```

### 2 Install Node.js Dependencies

Open terminal in the project folder and run:

```
bash  
  
npm install
```

This will install:

- express (web server)
- mongoose (MongoDB driver)
- cors (cross-origin requests)
- body-parser (request parsing)

### 3 Install and Start MongoDB

**Windows:**

1. Download MongoDB from <https://www.mongodb.com/try/download/community>.
2. Install and start MongoDB service
3. MongoDB runs on `mongodb://127.0.0.1:27017` by default

**macOS (with Homebrew):**

```
bash
```

```
brew tap mongodb/brew
```

```
brew install mongodb-community
```

```
brew services start mongodb-community
```

## Linux (Ubuntu/Debian):

```
bash
```

```
sudo apt-get install mongodb
```

```
sudo systemctl start mongodb
```

```
sudo systemctl enable mongodb
```

## 4 Start the Backend Server

```
bash
```

```
node server.js
```

Expected output:

✓ MongoDB Connected Successfully

🚀 Server running on http://localhost:5000

📖 API Documentation available at http://localhost:5000

## 5 Open the Application

### Option A: Direct File Open

- Simply open `index.html` in your browser

### Option B: Using Local Server (Recommended)

Using Python:

```
bash
```

```
python -m http.server 8080
```

Using Node.js:

```
bash
```

Then open: `http://localhost:8080`

## 🔥 Firebase Setup (Already Configured)

Your Firebase project is already set up! The configuration in `index.html` includes:

- **Project ID:** nexanova-c3fd1
- **Auth Domain:** nexanova-c3fd1.firebaseio.com
- **API Key:** AIzaSyAVKpzslG2vQZw-LK6wTAmWj5mm7aGGPkQ

### Verify Firebase Settings

1. Go to Firebase Console
2. Select your project: **nexanova-c3fd1**
3. Go to **Authentication** → **Sign-in method**
4. Ensure **Email/Password** is enabled
5. Go to **Firestore Database** and create database if not exists

## 📱 First Time Usage

### Creating Admin Account

1. Click "**Admin Portal**"
2. Click "**Register here**"
3. Fill in details:
  - Name: Your Name
  - Email: admin@nexanova.com
  - Password: (strong password)
  - Confirm Password: (same password)
  - **Admin Access Code: ADMIN2024** ← Important!
4. Click Register
5. Login with your credentials

## Creating Student Account

1. Click "**Student Portal**"
2. Click "**Register here**"
3. Fill in details:
  - Name: Your Name
  - Email: student@example.com
  - Roll Number: 2024001
  - Password: (strong password)
  - Confirm Password: (same password)
4. Click Register
5. Login with your credentials

## **Testing the Application**

### Test Admin Functions

1. **Add a Trainer**
  - Name: John Doe
  - Employee ID: T101
  - Subject: Mathematics
  - Click "Add Trainer"
2. **View All Trainers**
  - Click "Show All Trainers"
3. **Search Trainer**
  - Enter Employee ID: T101
  - Click "Search"
4. **Add More Trainers**
  - Add 2-3 more trainers with different subjects
5. **View Subjects**
  - Click "Show All Subjects"

## Test Student Functions

### 1. View Available Subjects

- Click "Show Available Subjects"

### 2. Enroll in Course

- Enter Subject Name: Mathematics
- Click "Enroll"

### 3. View My Enrollments

- Click "My Enrollments"

### 4. Search Trainers

- Enter Subject: Mathematics
- Click "Search Trainers"

## Common Issues & Solutions

### Issue: Cannot connect to MongoDB

#### Solution:

```
bash

# Check if MongoDB is running
mongo --version

# Start MongoDB
# Windows: Start from Services
# macOS: brew services start mongodb-community
# Linux: sudo systemctl start mongod
```

### Issue: Server not starting

#### Solution:

```
bash
```

*# Check if port 5000 is already in use*

*# Windows:*

`netstat -ano | findstr :5000`

*# macOS/Linux:*

`lsof -i :5000`

*# Kill the process or change port in server.js*

## Issue: Firebase authentication not working

### Solution:

1. Clear browser cache
2. Check browser console for errors
3. Verify Firebase configuration
4. Ensure internet connection is active
5. Check if Email/Password auth is enabled in Firebase Console

## Issue: CORS errors in browser

### Solution:

- Use a proper web server (http-server or Python server)
- Don't open index.html directly with file:// protocol
- Ensure server.js has `app.use(cors())` enabled

## Issue: Can't register admin

### Solution:

- Make sure you're using the correct access code: **ADMIN2024**
- Check browser console for error messages
- Verify Firebase is properly configured

## Advanced Configuration

### Change MongoDB Connection

Edit `server.js` line 15:

javascript

```
mongoose.connect("mongodb://127.0.0.1:27017/nexanovadb")
```

Change to your MongoDB URI if needed.

### Change Server Port

Edit `server.js` line 10:

```
javascript  
  
const PORT = 5000; // Change to any available port
```

Also update `app.js` line 2:

```
javascript  
  
const API_URL = "http://localhost:5000"; // Match server port
```

### Change Admin Access Code

Edit `app.js` line 86:

```
javascript  
  
if (accessCode !== 'ADMIN2024') { // Change 'ADMIN2024' to your code
```

## Database Structure

### MongoDB Collections

**trainers** collection:

```
javascript  
  
{  
  _id: ObjectId,  
  name: "John Doe",  
  empId: "T101",  
  subject: "Mathematics",  
  createdAt: Date,  
  updatedAt: Date  
}
```







## Firebase Firestore Collections

users collection:

```
javascript

{
  uid: "firebase_user_id",
  name: "Student Name",
  email: "student@example.com",
  role: "student" or "admin",
  rollNumber: "2024001", //for students only
  enrollments: ["Mathematics", "Science"], //for students only
  createdAt: Timestamp
}
```

## Next Steps

1.  Complete setup following this guide
2.  Test all admin functions
3.  Test all student functions
4.  Add sample data (trainers and subjects)
5.  Create multiple student accounts for testing
6.  Deploy to production (optional)

## Support

If you encounter any issues:

1. Check the browser console (F12 → Console tab)
2. Check server terminal for error messages
3. Verify all prerequisites are installed
4. Review the README.md file
5. Check MongoDB connection

## Learning Resources

- [Express.js Documentation](#)
- [MongoDB Documentation](#)



- [Firebase Documentation](#)
- [JavaScript MDN](#)

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**Happy Coding!** 🚀