

You're building a **MERN stack app** (MongoDB + Express + React + Node). Here's the **best free hosting setup in 2026** that actually works reliably.

Best Free MERN Hosting Setup

- Database** → **MongoDB Atlas**
- Backend (Express)** → **Render**
- Frontend (React)** → **Vercel**

This combo is:

- Fully free
 - Beginner friendly
 - Production ready for small projects
-

STEP 1 — Host MongoDB (Database)

1 Create Free MongoDB Atlas Cluster

1. Go to MongoDB Atlas
2. Create free cluster (M0)
3. Create database user
4. Add IP access → Allow from anywhere (0.0.0.0/0)
5. Copy connection string

Example:

```
mongodb+srv://username:password@cluster0.xxxxx.mongodb.net/mydb
```

❑ STEP 2 — Deploy Express Backend on Render

❑ Important: Update Your Server Code

Make sure your `server.js` has:

```
const PORT = process.env.PORT || 5000;
app.listen(PORT, () => console.log("Server running"));
```

1 ❑ Push backend to GitHub

Your backend folder should contain:

- `package.json`
 - `server.js`
 - `routes`
 - `models`
-

2 ❑ Deploy on Render

1. Go to Render
2. New → Web Service
3. Connect GitHub repo
4. Set:
 - Build Command: `npm install`
 - Start Command: `npm start`
5. Add Environment Variable:

```
MONGO_URI = your_atlas_connection_string
```

Deploy ❑

After deploy you'll get:

```
https://your-backend.onrender.com
```

□ STEP 3 — Deploy React Frontend on Vercel

□ Update API URL in React

Change your API calls:

```
axios.get("https://your-backend.onrender.com/api/...")
```

1 □ Push React App to GitHub

2 □ Deploy

Option 1:

```
npm i -g vercel  
vercel
```

Option 2:

- Go to Vercel
- Import GitHub repo
- Deploy

Done □

You'll get:

```
https://yourapp.vercel.app
```

□ Important: Enable CORS in Express

In backend:

```
const cors = require("cors");  
app.use(cors({  
  origin: "https://yourapp.vercel.app"  
}));
```

Recommended Folder Structure

Option A (Easiest):

```
backend/ → Render  
frontend/ → Vercel
```

Option B (Advanced – Single Repo)

- Backend on Render
- Frontend build served from backend

If you want, I can show that too.

Free Hosting Limitations

- Render sleeps after inactivity (~30 sec wake up)
- Atlas free tier limited to 512MB
- Not for high traffic production