

Dependencies & Requirements

This document lists all **dependencies** and **requirements** for the **Movie Recommendation Dashboard** project.

System Requirements

- **Node.js:** >= 18.x
- **npm:** >= 9.x
- **MongoDB:** >= 6.0 (running locally or Atlas Cloud)
- **Browser:** Latest Chrome/Firefox/Edge

Project Structure

```
movie-reccomendation-dashboard-app/
├── backend/      → Node.js + Express + MongoDB API
│   ├── package.json
│   └── .env
├── frontend/    → React + Redux + Firebase client
│   ├── package.json
│   └── .env
└── requirements.md
```

Backend Dependencies (/backend/package.json)

Package	Purpose
express	Web server framework
mongoose	MongoDB object modeling
cors	Handle cross-origin requests

dotenv	Load environment variables
axios	API requests (TMDB, etc.)
nodemon (dev)	Auto-restart server during development

Install all backend dependencies:

```
cd backend  
npm install
```

Run backend server:

```
npm run dev    # with nodemon  
npm start      # without nodemon
```

Frontend Dependencies (/frontend/package.json)

Package	Purpose
react	Frontend UI framework
react-dom	DOM rendering for React
@reduxjs/toolkit	State management
react-redux	React bindings for Redux
react-router-dom	Routing/navigation
axios	API requests
firebase	User authentication & config

Install all frontend dependencies:

```
cd frontend  
npm install
```

Run frontend app:

```
npm start
```

Environment Variables

Backend (/backend/.env)

```
MONGO_URI=mongodb://localhost:27017/moviedb  
PORT=5000  
TMDB_API_KEY=your_tmdb_api_key
```

Frontend (/frontend/.env)

```
REACT_APP_TMDB_API_KEY=your_tmdb_api_key  
REACT_APP_FIREBASE_API_KEY=your_firebase_api_key  
REACT_APP_FIREBASE_AUTH_DOMAIN=your_firebase_auth_domain  
REACT_APP_BACKEND_URL=http://localhost:5000
```

Execution

1. Start backend

```
cd backend  
npm run dev
```

Server: <http://localhost:5000>

2. Start frontend

```
cd frontend  
npm start
```

App: <http://localhost:3000>