

Netflix House - Interactive Video Experience

File Structure

```
netflix-house/
├── .env                # Environment variables (MongoDB, AWS credentials)
├── .gitignore          # Git ignore file
├── package.json        # Project dependencies and scripts
├── README.md          # Project documentation
├── server/
│   ├── index.js        # Express server entry point
│   ├── config/         # Configuration files
│   │   ├── db.js       # MongoDB connection
│   │   └── aws.js      # AWS S3 configuration
│   ├── models/         # MongoDB models
│   │   ├── location.js # Location model (KOP, Dallas)
│   │   ├── asset.js    # Asset model (videos, buttons)
│   │   ├── hotspot.js  # Hotspot model (coordinates, type)
│   │   └── playlist.js # Playlist model (video sequences)
│   ├── routes/         # API routes
│   │   ├── assets.js   # Assets management routes
│   │   ├── hotspots.js # Hotspot management routes
│   │   └── playlists.js # Playlist management routes
│   └── controllers/    # Route controllers
│       ├── assetController.js # Asset CRUD operations
│       ├── hotspotController.js # Hotspot CRUD operations
│       └── playlistController.js # Playlist CRUD operations
├── client/
│   ├── public/         # Static files
│   │   ├── index.html  # Main HTML file
│   │   ├── favicon.ico # Favicon
│   │   └── assets/     # Default assets
│   │       ├── icons/  # Default map pins and icons
│   │       ├── loading/ # Netflix loading spinner
│   │       └── placeholder/ # Placeholder images
│   └── src/            # React app source
│       ├── index.js    # React entry point
│       ├── App.js      # Main App component
│       ├── components/ # Reusable components
│       │   ├── VideoPlayer/ # Custom video player components
│       │   ├── Hotspot/    # Hotspot components
│       │   ├── AdminPanel/ # Admin panel components
│       │   ├── Menu/       # Menu screen components
│       │   └── common/     # Common UI components
│       ├── pages/       # Page components
│       │   ├── Menu.js    # Location selection page
│       │   ├── Experience.js # Main video experience page
│       │   └── Admin/     # Admin panel pages
│       │       ├── Assets.js # Asset management tab
│       │       ├── Hotspots.js # Hotspot management tab
│       │       └── Playlists.js # Playlist management tab
│       ├── context/     # React Context
│       │   ├── VideoContext.js # Video state management
│       │   └── AdminContext.js # Admin state management
│       ├── utils/       # Utility functions
│       │   ├── api.js    # API client
│       │   ├── s3.js     # S3 integration
│       │   └── videoLoader.js # Video preloading logic
│       └── styles/      # CSS/SCSS files
├── assets/            # Project assets (not served)
└── design/            # Design files/references
```

Technology Stack

- **Frontend:** React.js
- **Backend:** Node.js with Express
- **Database:** MongoDB (using Mongoose ODM)

- **Storage:** AWS S3
- **Deployment:** Railway.app

Core Features Implementation

Video Player & Hotspots

- Custom video player with transparent hotspot overlay
- Seamless video sequence playback
- Preloading mechanism for instantaneous playback
- Interactive map pins with different styles for primary/secondary hotspots

Admin Panel

- Single page application with tabs for Assets, Hotspots, and Playlists
- S3 integration for video/asset upload and management
- Canvas-based hotspot creation interface
- Playlist management with drag-and-drop functionality

Data Flow

1. Admin uploads and configures assets via Admin Panel
2. Hotspots are created and linked to video sequences
3. Frontend loads configuration and preloads necessary assets
4. User interacts with hotspots to trigger video sequences