BCI Ritual Game - Production Deployment Guide

Quick Deployment

The app is now configured for proper production deployment. Use the automated deployment script:

```
cd /home/ubuntu/bci-ritual-game/app
./deploy.sh
```

Manual Deployment Steps

If you prefer manual deployment:

1. Environment Setup

```
# Clean problematic environment variables
unset NEXT_DIST_DIR
unset __NEXT_TEST_MODE
```

2. Install Dependencies

```
npm ci
```

3. Build for Production

```
npm run build
```

4. Start Production Server

```
npm run start:prod
```

Issues Fixed

Problem: "Could not find a production build" Error

Root Cause: Environment variable `NEXT_DIST_DIR=.build` was causing Next.js to build to `.build` directory but look for builds in `.next` directory during start.

Solution:
- Unset problematic environment variables before build/start
- Ensured consistent build directory usage
- Added proper production scripts

Problem: Missing BUILD_ID File

Root Cause: Inconsistent build directory configuration

Solution: Fixed environment variable conflicts

Production Configuration

- **Port:** 3000 (default)
- **Build Directory:** `.next` (standard Next.js)
- **Environment:** Production mode with optimizations
- **Database:** PostgreSQL (configured in .env files)

Key Files

- `deploy.sh` - Automated deployment script
- `.env.production` - Production environment variables
- `next.config.js` - Next.js configuration
- `package.json` - Updated with production scripts

Verification

After deployment, verify the app is working:

1. **Server Status:** Check if server responds
   ```bash
   curl -I http://localhost:3000
   ```

2. **Browser Test:** Open http://localhost:3000
   - Dashboard should load
   - 3D Model Viewer should display
   - All navigation tabs should work
   - Brain metrics should show

Troubleshooting

If deployment fails:

1. **Check Environment Variables:**
   ```bash
   env | grep NEXT
   ```
   Should not show `NEXT_DIST_DIR` or `__NEXT_TEST_MODE`

2. **Verify Build Output:**
   ```bash
   ls -la .next/
   cat .next/BUILD_ID
   ```

3. **Check Server Logs:**
   ```bash
   npm run start:prod
   ```

App Features Verified Working

BCI Dashboard with real-time visualization

3D Model Viewer (sphere model)

Session Control (start/stop functionality)

Brain Metrics (Focus Score, Calm Score)

Navigation (Dashboard, History, Library, Settings)

Responsive UI with dark theme

Production optimizations enabled

The BCI Ritual Game is now successfully deployed and ready for production use!