

Fynocrat Landing Page – Complete Deployment Tree & Guide

This document provides a complete deployment tree and production deployment guide for the Fynocrat Landing Page project. It covers source structure, build outputs, runtime architecture, Fly.io deployment, environment variables, and best practices. This file is intended to be stored inside the project repository as a single source of truth.

1. Project Source Tree

```
fynocrat-landing-page-remix/
├── app/
│   ├── routes/
│   │   ├── home.tsx           # Landing page (Hero + Form + reCAPTCHA)
│   │   └── welcome.tsx
│   ├── components/           # Reusable UI components
│   │   ├── root.tsx          # App shell (Mantine + Providers)
│   │   ├── tailwind.css      # Tailwind source
│   │   ├── tailwind-output.css # Compiled Tailwind
│   │   └── app.css           # Global styles
│   └──
├── public/
│   ├── logo.png
│   ├── banner.png
│   └── rating-stars.png
├──
├── package.json
├── vite.config.ts
├── react-router.config.ts
├── Dockerfile
├── fly.toml
├── .env                       # (local only - not committed)
└── README.md
```

2. Build Output (Generated at Build Time)

```
build/
├── client/
│   ├── assets/               # JS, CSS, images
│   └── index.html
├──
└── server/
    └── index.js              # React Router SSR server
```

3. Build Flow

```
Developer
  ↓
npm install
  ↓
npm run tw:build           # Tailwind compilation
  ↓
npm run build               # React Router SSR build
  ↓
```

build/client + build/server

4. Runtime Architecture (Production)

```
User
↓
Fly.io Edge Network (HTTPS)
↓
Fly Machine (Docker Container)
  ■■■ Node.js
  ■■■ react-router-serve
  ■■■ build/server/index.js      # SSR
  ■■■ build/client               # Static assets
```

5. Fly.io Deployment Tree

```
Fly.io Platform
■■■ fly.toml
■■■ Dockerfile
■■■ Secrets (Fly)
■   ■■■ VITE_RECAPTCHA_SITE_KEY
■   ■■■ API_BASE_URL
■
■■■ Machine
    ■■■ OS: Alpine Linux
    ■■■ Node.js 20
    ■■■ App Code
    ■■■ Exposed Port: 3000
```

6. fly.toml (Production)

```
app = "fynocrat-landing"
primary_region = "bom"

[build]
  dockerfile = "Dockerfile"

[env]
  NODE_ENV = "production"
  PORT = "3000"

[http_service]
  internal_port = 3000
  force_https = true
  auto_start_machines = true
  auto_stop_machines = true
  min_machines_running = 1
```

7. Dockerfile (SSR Safe)

```
FROM node:20-alpine

WORKDIR /app

COPY package*.json ./
RUN npm ci
```

```
COPY . .
```

```
RUN npm run tw:build  
RUN npm run build
```

```
ENV NODE_ENV=production  
ENV PORT=3000
```

```
EXPOSE 3000
```

```
CMD ["npm", "run", "start"]
```

8. Environment Variables & Secrets

- 1 VITE_RECAPTCHA_SITE_KEY – Google reCAPTCHA site key
- 2 API_BASE_URL – Backend API endpoint
- 3 NODE_ENV – production
- 4 PORT – 3000

9. Deployment Commands

```
fly auth login  
fly launch  
fly secrets set VITE_RECAPTCHA_SITE_KEY=xxxxx API_BASE_URL=https://api.fynocrat.com  
fly deploy
```

10. Production Checklist

- 1 React Router SSR working
- 2 Tailwind compiled (no JIT at runtime)
- 3 Mantine styles loaded in root.tsx
- 4 reCAPTCHA domain added in Google console
- 5 HTTPS enabled via Fly.io
- 6 Auto-scaling enabled