

# Deployment Guide - Off-Plan Vastgoed Platform






Complete guide for deploying the off-plan real estate platform to Netlify at **spanje-rendement.nl**.

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## Prerequisites

Before deploying, ensure you have:

-  GitHub account with repository access
-  Netlify account (Pro tier for Blobs feature)
-  Domain access for **spanje-rendement.nl**
-  DeepSeek API key for AI matching
-  Generated JWT secret key

## Environment Variables

### Required Environment Variables

Set these in **Netlify Dashboard** → **Site Settings** → **Environment Variables**:

#### 1. JWT\_SECRET (Required)

- **Purpose:** Secure JWT token signing and verification
- **Generation:**

```
bash
openssl rand -base64 32
```
- **Example:** `Xk7mP9qR2tY5vW8zA1bC3dE6fH9jK0lN4oP7qS0tU3v=`
- **Security:** Keep this secret! Never commit to Git.

#### 2. DEEPSEEK\_API\_KEY (Required)

- **Purpose:** AI-powered investor matching

- **Get Key:** [DeepSeek Platform](https://platform.deepseek.com) (<https://platform.deepseek.com>)
- **Example:** `sk-1234567890abcdef1234567890abcdef`

### 3. NODE\_VERSION (Recommended)

- **Value:** `18` or `20`
- **Purpose:** Ensure Node.js 18+ for ES modules support

## Setting Environment Variables in Netlify

1. Go to **Site Settings** → **Environment Variables**
2. Click **Add a variable**
3. Add each variable:
  - Variable: `JWT_SECRET`
  - Value: `[your-generated-secret]`
  - Scopes: ☒ Production, ☒ Deploy Previews, ☒ Branch Deploys
4. Click **Create variable**
5. Repeat for `DEEPSEEK_API_KEY` and `NODE_VERSION`

## Netlify Setup

### Option 1: Auto-Deploy from GitHub (Recommended)

1. **Connect Repository**
  - Log in to [Netlify](https://app.netlify.com) (<https://app.netlify.com>)
  - Click **Add new site** → **Import an existing project**
  - Choose **GitHub** and authorize Netlify
  - Select repository: `Jali2587/off-plan-vastgoed-deep-seek`
2. **Configure Build Settings**
  - Build command: `echo 'No build step required'`
  - Publish directory: `.`
  - Functions directory: `netlify/functions`
  - **Note:** `netlify.toml` will override these settings
3. **Deploy Site**
  - Click **Deploy site**
  - Netlify will automatically install dependencies from `package.json`
  - Initial deployment URL: `https://[random-name].netlify.app`

### Option 2: Manual Deploy via Netlify CLI

```
# Install Netlify CLI
npm install -g netlify-cli

# Login to Netlify
netlify login

# Initialize site
netlify init

# Deploy to production
netlify deploy --prod
```

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## Domain Configuration

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### Configure spanje-rendement.nl

#### 1. Add Custom Domain in Netlify

- Go to **Domain Settings** → **Add a domain**
- Enter: `spanje-rendement.nl`
- Click **Verify**

#### 2. DNS Configuration

##### Option A: **Use Netlify DNS (Recommended)**

- Netlify will provide nameservers (e.g., `dns1.p01.nsone.net` )
- Update nameservers at your domain registrar
- Netlify automatically configures DNS and SSL

##### Option B: **External DNS Provider**

- Add these DNS records at your provider:

| Type  | Name | Value                   | TTL  |
|-------|------|-------------------------|------|
| A     | @    | 75.2.60.5               | 3600 |
| CNAME | www  | [your-site].netlify.app | 3600 |

#### 1. **SSL Certificate**

- Netlify automatically provisions Let's Encrypt SSL
- HTTPS enabled by default
- Certificate auto-renewal every 90 days

#### 2. **Force HTTPS**

- **Domain Settings** → **HTTPS** → Enable **Force HTTPS**

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## Data Migration

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### Initial Data Setup

The application uses **Netlify Blobs** for data persistence. Initial data from `/data` directory needs to be migrated.

#### Automatic Migration on First Run

Functions will automatically create Blobs from existing JSON files when first accessed. Initial data files include:

- `users.json` - User accounts
- `projects.json` - Property projects
- `profiles.json` - Investor profiles
- `favorites.json` - User favorites
- `reservations.json` - Reservations

## Manual Data Import (Optional)

To pre-populate Blobs before first use:

```
// Use Netlify CLI
netlify blobs:set data/users.json --input data/users.json
netlify blobs:set data/projects.json --input data/projects.json
netlify blobs:set data/profiles.json --input data/profiles.json
netlify blobs:set data/favorites.json --input data/favorites.json
netlify blobs:set data/reservations.json --input data/reservations.json
```

## ✓ Testing Checklist

### Pre-Deployment Tests

- [ ] All environment variables configured
- [ ] `package.json` contains all dependencies
- [ ] `netlify.toml` properly configured
- [ ] No hardcoded secrets in code
- [ ] Git repository clean (no sensitive data)

### Post-Deployment Tests

#### 1. Basic Functionality

- [ ] Site loads at custom domain
- [ ] HTTPS working (no certificate warnings)
- [ ] All static assets load correctly

#### 2. Authentication

- [ ] Register new user ( `/auth-register` )
- [ ] Login existing user ( `/auth-login` )
- [ ] Token verification works ( `/auth-verify` )
- [ ] JWT expiration handled correctly

#### 3. User Features

- [ ] View projects list
- [ ] Save favorites
- [ ] Load favorites
- [ ] Create investor profile
- [ ] Update investor profile
- [ ] Load investor profile

#### 4. AI Matching

- [ ] AI match endpoint responds ( `/ai-match` )
- [ ] DeepSeek API integration works
- [ ] Match results returned correctly

#### 5. Admin Features (if admin user exists)

- [ ] View all users ( `/admin-users-list` )
- [ ] View all profiles ( `/admin-profile-list` )

- [ ] View reservations ( /admin-reservations-list )
- [ ] View investor stats ( /admin-investor-stats )
- [ ] View project stats ( /admin-project-stats )
- [ ] Delete project ( /admin-delete-project )

## 6. Security

- [ ] CSP headers applied (check browser console)
- [ ] X-Frame-Options: DENY
- [ ] HTTPS enforced
- [ ] Unauthorized requests return 401
- [ ] Non-admin requests to admin endpoints return 403

## Testing Tools

### cURL Examples

```
# Test registration
curl -X POST https://spanje-rendement.nl/.netlify/functions/auth-register \
  -H "Content-Type: application/json" \
  -d '{"email":"test@example.com","role":"investor"}'

# Test login
curl -X POST https://spanje-rendement.nl/.netlify/functions/auth-login \
  -H "Content-Type: application/json" \
  -d '{"email":"test@example.com"}'

# Test protected endpoint
curl https://spanje-rendement.nl/.netlify/functions/favorites-load \
  -H "Authorization: Bearer YOUR_JWT_TOKEN"
```

### Browser Console Tests

```
// Test API from browser console
async function testAPI() {
  // Register
  const registerRes = await fetch('/.netlify/functions/auth-register', {
    method: 'POST',
    headers: { 'Content-Type': 'application/json' },
    body: JSON.stringify({ email: 'test@example.com', role: 'investor' })
  });
  const { token } = await registerRes.json();

  // Load favorites
  const favRes = await fetch('/.netlify/functions/favorites-load', {
    headers: { 'Authorization': `Bearer ${token}` }
  });
  console.log(await favRes.json());
}

testAPI();
```

## Troubleshooting

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### Common Issues

#### 1. “Missing JWT\_SECRET” Error

**Problem:** Environment variable not set

**Solution:** Add `JWT_SECRET` in Netlify Environment Variables

**Verify:** Redeploy site after adding variable

#### 2. “401 Unauthorized” on Protected Endpoints

**Problem:** Invalid or expired JWT token

**Solution:**

- Re-login to get fresh token
- Check token expiration (7 days)
- Verify `JWT_SECRET` hasn't changed

#### 3. “500 Internal Server Error” on Blob Operations

**Problem:** Netlify Blobs not enabled (requires Pro tier)

**Solution:**

- Upgrade to Netlify Pro
- Verify Blobs feature is enabled in Site Settings

#### 4. DeepSeek API Errors

**Problem:** Invalid API key or rate limit

**Solution:**

- Verify `DEEPSEEK_API_KEY` is correct
- Check API quota at DeepSeek dashboard
- Review function logs for specific error

#### 5. CSP Blocking Resources

**Problem:** Content Security Policy blocking scripts/styles

**Solution:**

- Check browser console for CSP violations
- Update `Content-Security-Policy` in `netlify.toml`
- Add allowed domains to appropriate directives

### Checking Logs

#### Netlify Function Logs

1. Go to **Site Dashboard** → **Functions**
2. Click on specific function
3. View **Function logs** for errors

#### Real-time Log Streaming

```
# Using Netlify CLI
netlify functions:log [function-name]

# Stream all function logs
netlify functions:log --stream
```

## Netlify Blobs Inspection

```
# List all blobs
netlify blobs:list

# Get specific blob
netlify blobs:get data/users.json
```

## Post-Deployment

### 1. Create Admin User

```
# Use Netlify Blobs CLI or function to create admin
curl -X POST https://spanje-rendement.nl/.netlify/functions/auth-register \
  -H "Content-Type: application/json" \
  -d '{"email":"admin@spanje-rendement.nl","role":"admin"}'
```

### 2. Monitor Performance

- **Netlify Analytics:** Enable in Site Settings
- **Function Execution:** Monitor in Dashboard
- **Bandwidth Usage:** Check monthly limits

### 3. Set Up Alerts

- **Downtime Monitoring:** Use UptimeRobot or similar
- **Error Tracking:** Consider Sentry integration
- **Budget Alerts:** Set Netlify bandwidth alerts

### 4. Regular Maintenance

- **Weekly:** Check function logs for errors
- **Monthly:** Review bandwidth and function usage
- **Quarterly:** Rotate JWT\_SECRET for security
- **As Needed:** Update dependencies in `package.json`

### 5. Backup Strategy

Netlify Blobs are durable, but consider periodic backups:

```
# Export all blobs
netlify blobs:get data/users.json > backup/users-$(date +%Y%m%d).json
netlify blobs:get data/projects.json > backup/projects-$(date +%Y%m%d).json
netlify blobs:get data/profiles.json > backup/profiles-$(date +%Y%m%d).json
netlify blobs:get data/favorites.json > backup/favorites-$(date +%Y%m%d).json
netlify blobs:get data/reservations.json > backup/reservations-$(date +%Y%m%d).json
```

## Additional Resources

- **Netlify Documentation:** <https://docs.netlify.com>

- **Netlify Blobs:** <https://docs.netlify.com/blobs/overview/>
  - **Netlify Functions:** <https://docs.netlify.com/functions/overview/>
  - **DeepSeek API:** <https://platform.deepseek.com/docs>
  - **Let's Encrypt SSL:** <https://letsencrypt.org>
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## Support

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### Need Help?

1. **Check Netlify Status:** <https://www.netlifystatus.com>
  2. **Community Forums:** <https://answers.netlify.com>
  3. **GitHub Issues:** Report bugs in repository
  4. **Netlify Support:** Available for Pro tier customers
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## Notes

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- **Staging Environment:** Consider creating a staging site for testing
  - **Git Workflow:** Use feature branches for changes, deploy to preview first
  - **Version Control:** Never commit `.env` files or secrets
  - **GDPR Compliance:** Ensure data handling complies with privacy laws
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**Last Updated:** December 2024

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**Deployment Status:**  Production-Ready