

Dependencies Notes and Recommendations

This document contains notes about package versions and potential issues found during the code audit.

Current Version Status

Potential Issues Found

1. ESLint Version Conflict

Current versions:

- `eslint` : 9.24.0
- `eslint-config-next` : 15.3.0

Issue: The ESLint version (9.x) may have compatibility issues with `eslint-config-next` which expects ESLint 8.x.

Recommendation:

```
{
  "eslint": "^8.57.0",
  "eslint-config-next": "14.2.28"
}
```

Or upgrade Next.js:

```
{
  "next": "15.3.0",
  "eslint-config-next": "15.3.0",
  "eslint": "^9.24.0"
}
```

2. UUID Package Version

Current version: `uuid@13.0.0`

Issue: Version 13.x is very new and may not be stable.

Recommendation:

```
{
  "uuid": "^10.0.0"
}
```

3. Zod Version

Current version: `zod@4.1.12`

Note: Version 4.x is relatively new. If you encounter issues, consider:

```
{
  "zod": "^3.23.0"
}
```

Next.js Version

Current: next@14.2.28

Latest stable: next@15.x

Note: The project uses Next.js 14.x which is stable. Upgrading to 15.x would require:

- Testing all pages and API routes
- Reviewing breaking changes
- Updating related packages

Recommendation: Stay on 14.x for now, upgrade after thorough testing.

Dependency Installation Order

First Time Setup

```
# 1. Install Node.js dependencies
yarn install

# 2. Generate Prisma clients
npx prisma generate

# 3. Install Python backend dependencies
pip install -r backend/requirements.txt

# 4. Install Python scripts dependencies (optional)
pip install -r scripts/requirements.txt
```

After Pulling Changes

```
# Check for new dependencies
yarn install

# Regenerate Prisma client if schema changed
npx prisma generate

# Update Python dependencies if changed
pip install -r backend/requirements.txt --upgrade
```

Key Dependencies Overview

Frontend Core

Package	Version	Purpose
next	14.2.28	React framework
react	18.2.0	UI library
typescript	5.2.2	Type safety

UI Components

Package	Version	Purpose
@radix-ui/*	Various	Headless UI components
tailwindcss	3.3.3	Utility CSS
lucide-react	Latest	Icons

Forms & Validation

Package	Version	Purpose
react-hook-form	Latest	Form management
zod	4.1.12	Schema validation
@hookform/resolvers	Latest	Form + Zod integration

Database & Backend

Package	Version	Purpose
@prisma/client	6.7.0	Database ORM (JS)
prisma	6.7.0	Prisma CLI

Python Backend

Package	Version	Purpose
fastapi	0.115.0	Python API framework
prisma	0.15.0	Prisma Python client
PyJWT	>=2.8.0	JWT auth (NEW)
emergentintegrations	0.1.0	Stripe integration

Payments

Package	Version	Purpose
@stripe/stripe-js	8.2.0	Stripe frontend
emergentintegrations	0.1.0	Stripe backend

Storage

Package	Version	Purpose
@aws-sdk/client-s3	Latest	S3 file storage

AI/ML

Package	Version	Purpose
openai	Latest	OpenAI API
@qdrant/js-client-rest	Latest	Vector database

TypeScript Configuration

Current Settings

The project uses strict TypeScript settings:

```
{
  "compilerOptions": {
    "strict": true,
    "noEmit": true,
    "esModuleInterop": true,
    "skipLibCheck": true
  }
}
```

Known TypeScript Issues

1. **Prisma Generated Types:** May show errors until you run `npx prisma generate`
 2. **Path Aliases:** Uses `@/*` for imports, defined in `tsconfig.json`
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Updating Dependencies

Safe Update Process

```
# 1. Check for outdated packages
yarn outdated

# 2. Update non-breaking changes only
yarn upgrade --scope @radix-ui
yarn upgrade --scope @hookform

# 3. Test thoroughly after updates
yarn dev
yarn build

# 4. Run type checking
yarn type-check
```

Major Version Updates

Before updating major versions:

1. **Read changelog** for breaking changes
2. **Update one package at a time**
3. **Test thoroughly**
4. **Commit after each successful update**

Recommended Update Schedule

- **Patch updates** (0.0.X): Weekly
 - **Minor updates** (0.X.0): Monthly
 - **Major updates** (X.0.0): Quarterly (with thorough testing)
-

Security Considerations

Package Audit

```
# Check for vulnerabilities
yarn audit

# Fix automatically if possible
yarn audit fix

# Check Python packages
pip-audit
```

Dependency Security

1. Pin critical versions in production
 2. Use lockfile (`yarn.lock`)
 3. Regular security audits
 4. Monitor for CVEs
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Troubleshooting

Common Issues

“Cannot find module ‘@prisma/client’“

```
npx prisma generate
```

“Type error in Next.js build”

```
# Clear cache and rebuild
rm -rf .next
yarn build
```

“Module not found”

```
# Reinstall dependencies
rm -rf node_modules yarn.lock
yarn install
```

Python Import Errors

```
# Reinstall Python packages
pip install -r backend/requirements.txt --force-reinstall
```

Production Considerations

Lock File Management

- Commit `yarn.lock` to repository
- Never manually edit lockfile
- Use `yarn install --frozen-lockfile` in CI/CD

Environment-Specific Dependencies

Some packages are only needed in development:

Development only:

- `@types/*` packages
- `eslint` and plugins
- `typescript`
- `prisma` CLI (not `@prisma/client`)

Production required:

- `next`
 - `react`
 - `@prisma/client`
 - Runtime dependencies
-

Notes for Future Updates

When Upgrading Next.js 14 → 15

Required changes:

1. Update all `@next/*` packages
2. Review [Next.js 15 migration guide](https://nextjs.org/docs/app/building-your-application/upgrading/version-15) (<https://nextjs.org/docs/app/building-your-application/upgrading/version-15>)
3. Test all API routes (may have breaking changes)
4. Update ESLint config
5. Test middleware and routing

When Upgrading React 18 → 19

Required changes:

1. Review React 19 breaking changes
 2. Test all components
 3. Update types (`@types/react`)
 4. Check third-party component compatibility
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Recommended Actions

Immediate (Before Production Deploy)

- [] Consider downgrading ESLint to 8.x OR upgrading Next.js to 15.x
- [] Downgrade `uuid` to 10.x
- [] Run `yarn audit` and fix vulnerabilities
- [] Test all critical paths

Short-term (Within 1-2 Weeks)

- [] Set up automated dependency updates (Dependabot/Renovate)
- [] Add `yarn audit` to CI/CD pipeline
- [] Document any custom package patches

Long-term (Next Quarter)

- [] Plan Next.js 15 upgrade
 - [] Review and update all major dependencies
 - [] Add integration tests for critical features
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