Illumination Deployment Manual v1.0

Local Development Setup

Prerequisites

✅ Node.js (18.17.0 or later)
✅ MongoDB (6.0 or later)
✅ Expo CLI
✅ Git
✅ Clerk Account (for authentication)

Environment Setup

1. Clone Repository

```
# Clone the Tech Titans repository
git clone <https://github.com/htmw/2024F-Tech-Titans.git>
cd 2024F-Tech-Titans
```

2. Server Setup

```
# Navigate to server directory
cd server

# Install dependencies
npm install

# Create .env file with the following content:
```

```
MONGODB_URI=mongodb://localhost:27017/techtitans
CLERK_SECRET_KEY=your_clerk_secret_key
PORT=3000
```

3. Database Setup

```
# Start MongoDB service
sudo service mongodb start

# Verify MongoDB is running
mongosh
```

4. Mobile App Setup

```
# Navigate to mobile app directory
cd ../app

# Install dependencies
npm install

# Create .env file with:
EXPO_PUBLIC_API_URL=http://localhost:3000/api
EXPO_PUBLIC_CLERK_PUBLISHABLE_KEY=your_clerk_publishable_key
```

Running the Application

Start Backend Server

```
# In the server directory
npm run dev
```

Start Mobile App
```

```
# In the app directory
npx expo start
```

App Store Deployment (iOS)

Prerequisites

- Apple Developer Account ($99/year)
- Xcode installed
- App Store Connect access
- Expo account

Configuration Steps

1. Expo Configuration

Update app.json in your project:

```
{
  "expo": {
    "name": "Tech Titans",
    "slug": "tech-titans",
    "version": "1.0.0",
    "ios": {
      "bundleIdentifier": "com.techtitans.app",
      "buildNumber": "1"
    }
  }
}
```

2.Build Configuration

```
# Install EAS CLI if not installed
npm install -g eas-cli

# Login to Expo account
eas login

# Configure build
eas build:configure

# Create iOS build
eas build --platform ios

# Submit to App Store
eas submit --platform ios
```

Required Assets

1. App Icon (1024□1024)
2. Screenshots for:

   ○ iPhone 14 Pro

   Max ○   iPhone

   14

   ○ iPad Pro

3. App Description
4. Privacy Policy URL
5. Support URL: support@tech-titans.com

Play Store Deployment (Android)

Prerequisites

   ○ Google Play Developer account ($25 one-time fee)

- Keystore for app signing
- Expo account

Configuration Steps

1. Generate Keystore

```
keytool -genkeypair -v -storetype PKCS12 -keystore tech-titans.keystore \\
   -alias tech-titans -keyalg RSA -keysize 2048 -validity 10000
```

2. Update app.json

```json
{
  "expo": {
    "android": {
      "package": "com.techtitans.app",
      "versionCode": 1,
      "adaptiveIcon": {
        "foregroundImage": "./assets/adaptive-icon.png",
        "backgroundColor": "#FFFFFF"
      }
    }
  }
}
```

3. Build and Submit

```
# Create Android build
eas build --platform android
```

```
# Submit to Play Store
eas submit --platform android
```

Required Assets

1. App Icon (512×512)

2. Feature Graphic (1024×500)

3. Screenshots for:

   - Phone

   (1080×1920)

   7-inch tablet

   - 10-inch tablet

4. Privacy Policy URL

5. Content Rating Documentation

Environment Variables Reference

Server (.env)

```
MONGODB_URI=your_mongodb_connection_string
CLERK_SECRET_KEY=your_clerk_secret_key
PORT=3000
NODE_ENV=development/production
```

Mobile App (.env)

```
EXPO_PUBLIC_API_URL=your_api_url
EXPO_PUBLIC_CLERK_PUBLISHABLE_KEY=your_clerk_publishable_key
```

Troubleshooting Guide

Common Issues

Local Development

1. MongoDB Connection Issues

```
# Check MongoDB status
sudo systemctl status mongodb

# Restart MongoDB if needed
sudo systemctl restart mongodb
```

2. Expo Build Issues

```
# Clear Expo cache
expo start -c
```

3. Environment Variable Issues

```
# Verify environment files
cat .env

# Restart the server after env changes
npm run dev
```

iOS Deployment

1. Certificate Issues

   ○ Verify certificates in Apple Developer Portal ○ Regenerate certificates if needed

   ○ Update provisioning profiles

2. Build Failures

```
# Clean build cache
eas build:clean
```

Android Deployment

1. Keystore Issues

    - Verify keystore location

    - Check keystore
    passwords - Backup
    keystore file

2. Package Name Conflicts

    - Ensure unique package
    name - Update in
    app.json

Support and Contact

For technical support:

- Email: support@tech-titans.com

- Issue Tracker:
https://github.com/htmw/2024F-Tech-Titans/issues