

# PROJECT DOCUMENT

Project Title:

PDF Viewer Desktop App (Next.js + React + Electron.js)

## 1. Project Overview

The PDF Viewer Desktop App is a desktop application that allows users to upload PDF files via drag & drop or file picker and preview them instantly. Built using Next.js for UI and Electron.js for packaging into a desktop executable.

## 2. Tech Stack

Frontend: Next.js, React.js, Tailwind CSS

Electron: Electron.js, Electron Builder

PDF Rendering: pdf.js

## 3. Core Features

- Drag & drop PDF upload
- Browse & open PDF
- PDF preview using pdf.js
- Page navigation & zoom (optional)
- Package as Windows EXE via Electron

## 4. System Architecture

Electron loads Next.js build inside BrowserWindow.

Next.js handles UI + PDF rendering.

pdf.js handles PDF display.

## 5. Folder Structure

root/

■■ electron/

■ ■ ■ main.js

■ ■ ■ preload.js

■ ■ ■ package.json

■ ■ src/app/

■ ■ ■ page.tsx

■ ■ ■ components/

■ ■ ■ DropZone.tsx

■ ■ ■ PDFViewer.tsx

■ ■ ■ Header.tsx

■ ■ public/pdf.worker.js

■ ■ package.json

■ ■ next.config.js

## 6. Development Phases

Phase 1: Next.js setup with Tailwind

Phase 2: Drag & Drop Upload

Phase 3: PDF.js Viewer

Phase 4: Electron Integration

Phase 5: Build EXE

## 7. Functional Requirements

- Drag & drop upload

- File browsing upload

- PDF preview

- Page navigation

- Zoom

- EXE packaging

## 8. UI Layout

- Header
- Drag zone
- File button
- PDF preview area

## 9. AI Prompting Steps

Step 1 — Create Next.js project

Step 2 — Create folder structure

Step 3 — Create DropZone component

Step 4 — Create PDFViewer using pdf.js

Step 5 — Combine UI

Step 6 — Add Electron

Step 7 — Add packaging

Step 8 — Final review

## 10. Expected Output

- Complete Next.js project
- PDF Viewer UI
- Working Electron desktop app
- Windows EXE builder configured