Letter Request Portal - Project Documentation

# 📨 Project Overview

The Letter Request Portal is a full-stack web application designed to simplify the process of requesting and generating various official HR-related letters for employees. Employees can submit different types of letter requests, and administrators can approve them and generate downloadable .docx files filled dynamically using pre-designed templates.

# 📌 Features

## 🧑‍💼 Employee Side

- Submit letter requests for:  
 - HR Letter  
 - Travel NOC  
 - Visa Letter  
 - Certification Reimbursement  
 - Internship Completion  
- Simple UI to fill out forms  
- View request history and statuses

## 👩‍💼 Admin Side

- View and manage all letter requests  
- Approve or reject requests  
- Generate filled .docx letters from templates  
- Download the generated letters

# 🛠️ Tech Stack

Frontend: React, Tailwind CSS, React Router, Axios  
Backend: Node.js, Express  
Templating: docxtemplater, pizzip  
Database: MongoDB Atlas  
File Handling: Dynamic filling of `.docx` files with placeholders ({{ }})

# 📂 Folder Structure

LetterReqPortal/  
├── backend/  
│ ├── public/  
│ │ └── templates/ # .docx templates (renamed, simplified)  
│ │ └── generated/ # Output letters  
│ ├── routes/  
│ ├── controllers/  
│ └── server.js # Main Express server  
├── src/  
│ ├── components/  
│ ├── pages/  
│ └── App.jsx  
├── public/  
├── package.json  
└── README.md

# 🧾 Letter Templates

All letter templates are stored in `backend/public/templates/`.  
Each template is a `.docx` file containing {{placeholder}} fields for dynamic replacement.  
  
Template list:  
- hrletter.docx  
- travelnoc.docx  
- visaletter.docx  
- certification\_reimbursement.docx  
- Internshipcompletion.docx

# 🚀 How It Works

1. Employee submits a letter request through a frontend form.  
2. Backend receives the request and selects the appropriate template.  
3. docxtemplater fills in the data using {{placeholders}} in the template.  
4. Admin can download the generated letter.

# 🧪 Local Setup Guide

1. Clone the repository:  
 git clone https://github.com/<your-username>/LetterReqPortal.git  
2. Navigate to frontend and backend and install dependencies:  
 cd frontend && npm install  
 cd backend && npm install  
3. Start the backend: npm run server  
4. Start the frontend: npm run dev  
5. Visit: http://localhost:5173

# ✅ To-Do

- [x] Dynamic letter generation  
- [x] Admin approval interface  
- [ ] EmailJS integration  
- [ ] DocuSign integration

# 📃 License

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