Warehouse Picklist App

A modern, full-stack warehouse management system for efficient order picking and inventory tracking

LIVE DEMO | VIEW APP | GITHUB | STAR REPO

Overview

The Warehouse Picklist App is a comprehensive solution designed to streamline warehouse operations, optimize picking workflows, and maintain accurate inventory tracking. Built with modern technologies and a mobile-first approach, it empowers warehouse workers with an intuitive interface for efficient order processing.

Key Benefits

- **Increased Efficiency**: Streamlined picking workflows reduce processing time
- **Real-time Tracking**: Live updates on order status and inventory changes
- **Mobile Optimized**: Perfect for warehouse workers using handheld devices
- **Audit Trail**: Complete tracking of all warehouse activities
- **Error Reduction**: Built-in validation and alternative location suggestions

Live Demo

View Live Application

Demo Credentials

```
Username: picker1
Password: password
```

Additional test accounts: picker2, supervisor (same password)

🛠️ Tech Stack

Frontend

- ⚛️ **React 18** with TypeScript
- 🎨 **Tailwind CSS** with custom design system
- 🧭 **React Router** for navigation
- 📡 **Axios** for API communication
- 🎉 **React Hot Toast** for notifications
- 🎯 **Lucide React** for icons

Backend

- 🟢 **Node.js** with Express.js
- 🍃 **MongoDB** with Mongoose ODM
- 🔐 **JWT Authentication**
- 🔒 **bcryptjs** for password hashing
- 🌐 **CORS** enabled

Development Tools

- ⚡ **Vite** for fast development
- 📝 **TypeScript** for type safety
- 🎨 **PostCSS** with Autoprefixer
- 🔧 **ESLint** for code quality

📦 Installation & Setup

Prerequisites

- Node.js (v18 or higher)
- MongoDB (local or cloud instance)
- Git

Quick Start

1. **Clone the Repository**

```
git clone https://github.com/yourusername/Picklist-App.git
cd Picklist-App
```

2. **Install Frontend Dependencies**

```
cd Frontend
npm install
npm run dev
```

3. **Environment Setup**

   Backend Configuration:

```
cd backend
npm install
npm start
cp .env.example .env
```

   Edit `backend/.env`:

```
PORT=5000
MONGODB_URI=mongodb://localhost:27017/warehouse-picklist
JWT_SECRET=your-super-secret-jwt-key-here
NODE_ENV=development
FRONTEND_URL=http://localhost:5173
```

   Frontend Configuration:

```
cd frontend
cp .env.example .env
```

   Edit `frontend/.env`:

```
VITE_API_BASE_URL=http://localhost:5000/api
VITE_APP_NAME=Warehouse Picklist
VITE_APP_VERSION=1.0.0
```

4. **Start MongoDB**

```
# If using local MongoDB
mongod

# Or use MongoDB Atlas cloud connection
```

5. **Run the Application**

```
# Start frontend
npm run dev

 # Start Backend
npm start
```

6. **Access the Application**
    - Frontend: http://localhost:5173
    - Backend API: http://localhost:5000/api
    - Health Check: http://localhost:5000/api/health

✨ Features

🔐 Authentication System

- Secure JWT-based authentication
- Role-based access control (Picker, Supervisor, Admin)
- Session management with automatic token refresh

📊 Dashboard & Analytics

- Real-time order statistics
- Progress tracking with visual indicators
- Order filtering by status and priority
- Performance metrics

📋 Order Management

- Dynamic order assignment
- Priority-based sorting
- Real-time status updates
- Bulk operations support

📦 Picking Workflow

- Optimized picking routes
- Item location mapping
- Alternative location suggestions
- Barcode scanning ready

🔄 Inventory Management

- Cycle count triggers
- Stock level monitoring
- Location-based tracking
- Inventory discrepancy reporting

📈 Audit & Reporting

- Complete activity logging
- User action tracking
- Performance analytics
- Export capabilities

📱 Mobile Experience

- Responsive design for all devices
- Touch-friendly interface
- Offline capability (coming soon)
- PWA support (coming soon)

🏗️ Project Structure

```
warehouse-picklist-app/
├── 📁 backend/
│   ├── 📁 middleware/          # Authentication & validation
│   ├── 📁 models/              # MongoDB schemas
│   ├── 📁 routes/              # API endpoints
│   ├── 📁 utils/               # Helper functions
│   ├── 📄 server.js            # Express server
│   └── 📄 .env.example         # Environment template
├── 📁 frontend/
│   ├── 📁 src/
│   │   ├── 📁 components/      # Reusable UI components
│   │   ├── 📁 contexts/        # React contexts
│   │   ├── 📁 pages/           # Application pages
│   │   ├── 📁 services/        # API services
│   │   └── 📄 main.tsx         # Application entry
│   ├── 📄 vite.config.ts       # Vite configuration
│   └── 📄 .env.example         # Environment template
├── 📄 package.json             # Root dependencies
└── 📄 README.md                # This file
```

🚀 Deployment

Production Environment Variables

Backend (.env):

```
PORT=5000
MONGODB_URI=mongodb+srv://username:password@cluster.mongodb.net/warehouse-picklist
JWT_SECRET=your-production-secret-key-very-long-and-secure
NODE_ENV=production
FRONTEND_URL=https://your-frontend-domain.com
```

Frontend (.env):

```
VITE_API_BASE_URL=https://your-api-domain.com/api
VITE_APP_NAME=Warehouse Picklist
```

```
VITE_APP_VERSION=1.0.0
```

Build for Production

```
# Build frontend
cd frontend && npm run build

# Start production server
cd backend && npm start
```

👨‍💻 Developer

Created with ❤️ by Shivam Singh

Built for the future of warehouse management 📦✨