SYNOPSIS

Report on

Locally Yours AI

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ABSTRACT

The **Locally Yours** project is a full-stack AI-powered content generation platform designed to create personalized, locally relevant content for businesses, bloggers, and content creators. The platform leverages cutting-edge technologies to offer a seamless and intuitive user experience. At its core, **Locally Yours** integrates Google's AI API, enabling users to generate high-quality content tailored to specific local needs. The frontend is built using **React**, **Next.js**, and **Tailwind CSS**, ensuring a responsive, user-friendly dashboard that supports content template selection and generation with ease.

The backend of the platform is powered by **Node.js** and **Express.js**, with a **PostgreSQL** database managed using **Drizzle ORM** to store user information, content templates, and generated content. To ensure secure user access and management, **Clerk** is used for user authentication, allowing users to log in and manage their accounts efficiently. **Razorpay** is integrated for seamless payment handling, offering credit-based free usage as well as subscription plans for premium features.

The platform's primary goal is to simplify content creation by allowing users to generate relevant, customized content effortlessly. With its scalable architecture, **Locally Yours** ensures both accessibility and long-term growth, serving as a valuable tool for local businesses looking to enhance their digital presence. The combination of AI-driven content generation and a robust, intuitive platform makes **Locally Yours** a comprehensive solution for content creators looking to streamline their processes.

Keywords:**AI-powered, content generation, PostgreSQL, user authentication, Razorpay**

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1. Introduction

The **Introduction** provides a comprehensive overview of the **Locally Yours** project. This section outlines the problem being addressed by the platform, such as the difficulty of creating personalized, locally relevant content for businesses, bloggers, and content creators. It introduces the core technologies used in the project, including **AI-powered content generation** through the **Google AI API**, frontend technologies such as **React**, **Next.js**, and **Tailwind CSS**, and backend technologies like **Node.js**, **Express.js PostgreSQL**, and **Drizzle ORM**. The purpose and the target audience of the platform are explained, focusing on the ease of use, scalability, and benefits of the content generation model.

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2. Literature Review

The **Literature Review** provides an overview of existing technologies and platforms related to content generation, AI integration, and local business marketing. It examines current solutions that businesses and content creators use to create personalized content. The review also covers the role of **AI** in content creation, comparing traditional methods to AI-powered approaches, and highlights the limitations of current solutions, as well as the opportunities for improving local content creation through advanced technologies. The impact of **AI-based content** on business marketing strategies and digital transformation is discussed.

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3. Project / Research Objective

The **Project Objective** section defines the specific goals of the **Locally Yours** platform. It includes the following objectives:

- To build a scalable platform for generating personalized, locally relevant content.
- To provide a **user-friendly interface** that allows users to quickly and easily select content templates and generate customized text using **AI-powered technology**.

- To implement a secure and scalable backend system using **Node.js**, **Express.js**, and **PostgreSQL**.
- To integrate **Razorpay** for subscription management, ensuring a seamless payment experience.
- To offer an innovative solution for local businesses, bloggers, and content creators by making content generation more accessible, affordable, and efficient. The section also highlights the expected outcomes, including improved content creation efficiency and increased engagement for local businesses.

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4. Hardware and Software Requirements

This section outlines the **hardware and software requirements** for the **Locally Yours** platform, detailing the essential tools and technologies necessary for the development and deployment of the system:

Hardware Requirements:

- **Minimum 4GB RAM** and a modern **CPU** (Intel i5/Ryzen 5 or equivalent) for development and server hosting.
- An **Internet connection** for accessing AI services, payment gateways, and user interaction.
- **Cloud infrastructure** for hosting the platform (e.g., **AWS**, **DigitalOcean**, or **Heroku**).

Software Requirements:

- **Frontend**: **React**, **Next.js**, **Tailwind CSS**.
- **Backend**: **Node.js**, **Express.js** for server-side functionality.
- **Database**: **PostgreSQL** with **Drizzle ORM** for database management.
- **AI Integration**: **Google AI API** for content generation.
- **Authentication**: **Clerk** for user login and management.
- **Payment Integration**: **Razorpay** for subscription and payment services.
- **Development Tools**: **VS Code** for code editing, **Git** for version control, **Docker** for containerization, and **Postman** for API testing.

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5. Project Flow / Research Methodology

This section describes the **project flow** and the **research methodology** used to develop the platform:

Research Methodology:

- **Phase 1: Requirement Gathering** – Understanding the user's content generation needs and defining the platform's features.
- **Phase 2: System Design** – Creating wireframes and UI/UX mockups, and designing the system architecture.
- **Phase 3: Backend Development** – Building the backend using **Node.js** and integrating the **Google AI API**.
- **Phase 4: Frontend Development** – Developing a responsive frontend with **React** and **Next.js**.
- **Phase 5: Testing** – Unit, integration, and performance testing to ensure the system works as intended.
- **Phase 6: Deployment** – Deploying the platform to cloud servers and making it live for users.

Project Flow:

- Start with gathering user requirements.
- Move to designing the system, followed by backend and frontend development.
- Regular testing at every phase ensures smooth implementation.
- Launch the final product after deployment, with ongoing monitoring.

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6. Project / Research Outcome

The **Project Outcome** section will explain the expected deliverables and results of the **Locally Yours** project. The outcomes include:

- A fully functioning platform where users can log in securely, choose content templates, input relevant information, and generate high-quality AI-generated content.

- An integrated system that uses **Google AI API** to produce content based on user preferences, with seamless access to payment systems through **Razorpay** for both free and premium subscriptions.
- A scalable and secure backend, with user management and data storage handled by **PostgreSQL** and **Drizzle ORM**.
- A user-friendly frontend, allowing users to easily generate personalized content for local businesses and blogs.

These outcomes will enable businesses to enhance their digital presence by automating content creation, saving time and effort, and increasing local market engagement.

7.Proposed Time Duration

The project is expected to be completed within **2 months**, broken down into the following phases:

- **Phase 1 (Requirement Analysis)**: 1 week
  - Gathering user requirements, defining content templates, and finalizing feature set (AI integration, user authentication, and payment options).
- **Phase 2 (Design)**: 2 weeks
  - Designing wireframes and UI/UX for the platform. Creating mockups for the dashboard and user interface, and planning system architecture.
- **Phase 3 (Backend Development)**: 3 weeks
  - Setting up the backend environment with **Node.js** and **Express.js**. Integrating **Google AI API** for content generation, and **Razorpay** for subscription and payment management.
- **Phase 4 (Frontend Development)**: 3 weeks
  - Developing the frontend using **React**, **Next.js**, and **Tailwind CSS**. Implementing the responsive user interface for seamless interaction.
- **Phase 5 (Testing and Optimization)**: 1 week
  - Conducting thorough testing for bugs, performance issues, and security vulnerabilities. Optimizing the content generation process and ensuring smooth platform functionality.
- **Phase 6 (Deployment and Final Launch)**: 1 week
  - Final deployment of the platform on cloud infrastructure, ensuring all features are functional and ready for public use.

Total estimated time: **2 months** (approximately 8 weeks).

REFERENCES/ Bibliography

The bibliography section lists the resources referenced and consulted during the development of the **Locally Yours** project. Below are the key references:

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