Open AI-powered dental chatbot

Document Control

Document Information

	Information
Document Id	*FIVERSCAN172*
Document Owner	*Kenneth Battle*
Issue Date	*2023-03-18*
Last Saved Date	*2023-03-21*
File Name	*FIVERSCAN172-PMPP-DentalChatbot.pdf*

Document History

Version	Issue Date	Changes
[0.1.0]	*2023-03-20*	*[Guest: Login, Register, User: Setting, Training]*

Document Approvals

Role	Name	Signature	Date
Project Sponsor	**Michael Yap**		
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Table of Contents

Project Guide

Project target

We are aimed to develop an Open AI-powered dental chatbot SaaS which provides chatbots to the websites of dentists. Here are basic categories of our process.

Development for Website Frontend
- *Guest panel for guests who don't sign in yet.*
- *User panel for our customers*
- *Admin panel for admins and operators*

Development for Website Backend
- *Management of database including AI queries customers and operators*
- *Interaction with from frontend*
- *Open AI integration into dental chatbot*
- *Training our chatbot in three ways mentioned from the respected sponsor*
- *Providing live chat and chatbot into customer websites*

Deployment
- *Set domain as sub of https://bestdentistmarketing.com.*

Maintenance
- *Handling customer feedback*
- *Upgrading version following the fashion and several demands*

1. **Techs**

   Frontend

   React.js   v18.0.0
   > React.js is needed for building interactive user interfaces and web applications quickly and efficiently with significantly.

   Next.js   v13.2
   > Next.js handles the tooling and configuration needed for React, and provides additional structure, features, and optimizations for your application

   EJS   v3.1.9
   > EJS is one of the most popular template engines for JavaScript.

   Backend

   Node.js   v18.12.0
   > Node.js is a platform built on JavaScript runtime for easily building fast and scalable network applications. Node.js uses an event-driven, non-blocking I/O model that makes it lightweight and efficient, perfect for data-intensive real-time applications that run across distributed devices.

   MongoDB   v6.0
   > MongoDB is a document database used to build highly available and scalable internet applications. And essential for processing for big data like AI database.

   Open AI   GPT-3
   > The cutting-edge of AI world.

   Python   v3.10.4
   > Python gives more emphasis on natural language.

2. Milestones

Milestone	Description	Task	Delivery Period
Beta version [v0.1.0]	Login, Registration in frontend Setting, Training in backend	To map design to mock up To configure backend structure To design database schema To introduce backend routing based on MVC To build guest (not logged in) login & registration pages To build user (logged in) setting and training page To build admin pages just to manage users To load Open AI model gpt-3 To store database related with dental glossaries To plant third training method	8 days
To Build other guest pages with design [v0.2.0]	Using JavaScript frameworks such as React.js, Next.js and EJS to make trial version more visible	To arrange proper components To control state of DOM To make backend APIs	3 days
To complete functions of chatbot [v0.5.0]	Giving our chatbot more trainings and providing live chat. Building Inbox page in backend.	To let our chatbot able into dentists' websites To provide live chat in which operators take part	2.5 days
To complete training Test version [v0.7.0]	2nd training method. After this milestone, we can provide test version and start accepting feedback.	To scratch dentists' websites using specific tool To learn from result by model To add them into origin database	3.5 days
To complete user panel [v0.8.0]	Building pages so that users can get more familiar to the service.	To handle APIs from frontend To implement 5 pages - Dashboard - Chatbots - Visitors - Contacts - Analytics	4 days
To complete admin panel [v0.9.0]	Building pages for administrators of this service	To investigate basics from serving team To perform pages including statistics, settings, events, FAQs depending on requirements.	3 days
To baby-launch [v1.0.0]	Beginning for free in scale of 5 – 10 dentists and get feedbacks and make release version.		3 days
To go on with operating SaaS	Continuing the service and keep maintenance		On going
Total period			27 days

3. Constraints

- To integrate Open AI API, it will need Open AI API key for enterprise version.
- To deploy website, it will need account info in https://www.cloudways.com.