

DentalLens

Presented by Team GLR

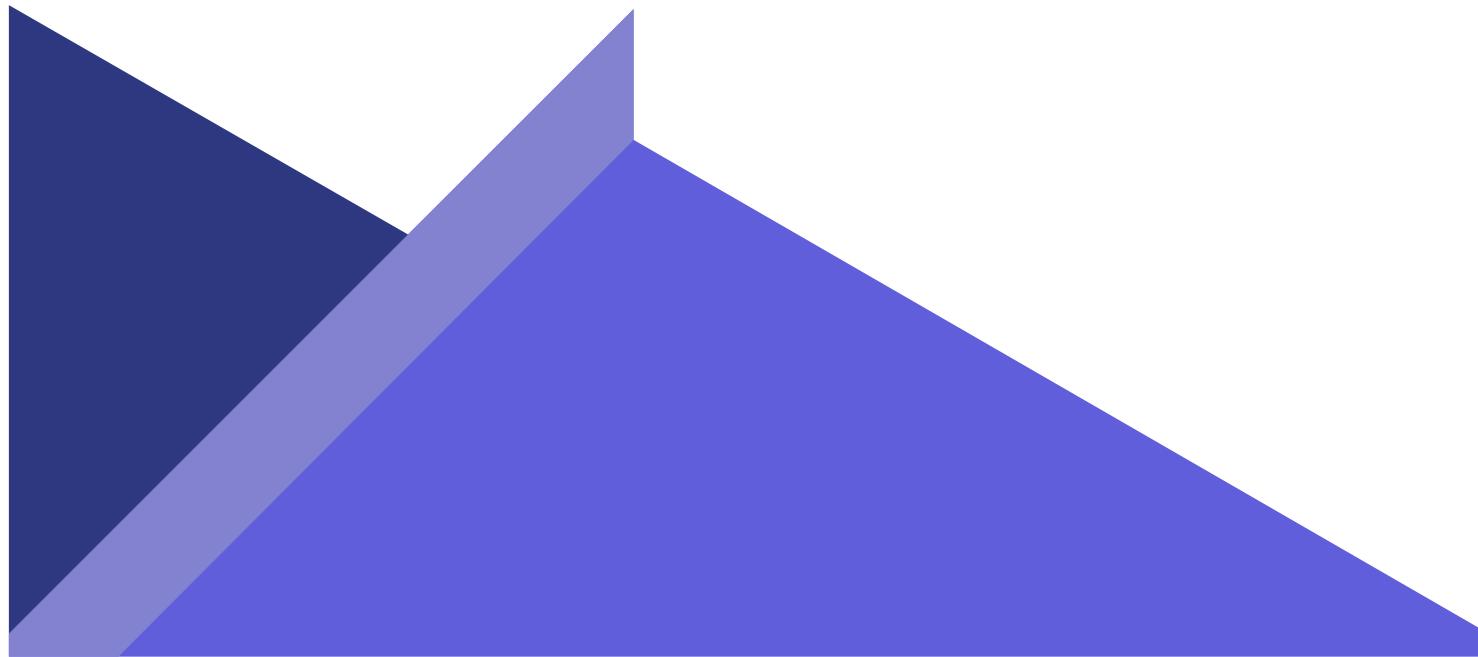


Why: The Motivation

In the Philippines, most people seek dental care only when in pain. With over 90% affected by dental caries, limited awareness, access, and preventive education showing the need for better oral health awareness.

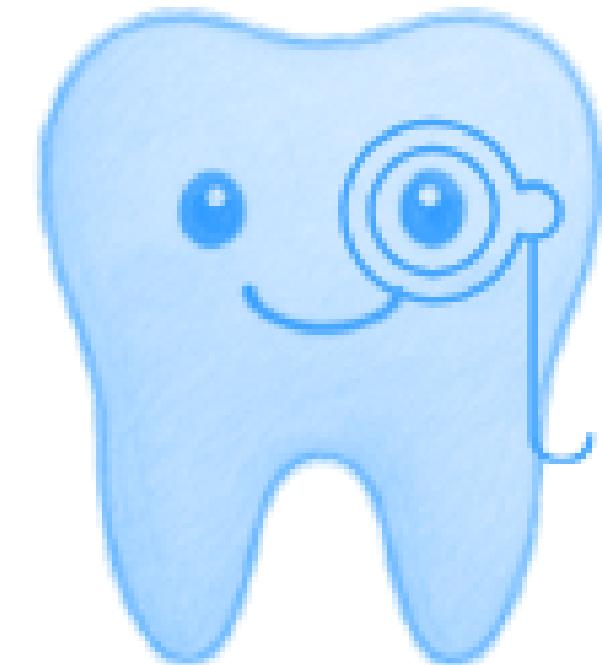
The Problem

Many people delay dental check-ups until pain occurs, leading to late detection and more costly treatments. There's also a general lack of awareness about oral health, with issues like cavities or gum disease often unnoticed without regular check-ups. These problems were identified through research and observation during the requirements gathering process.

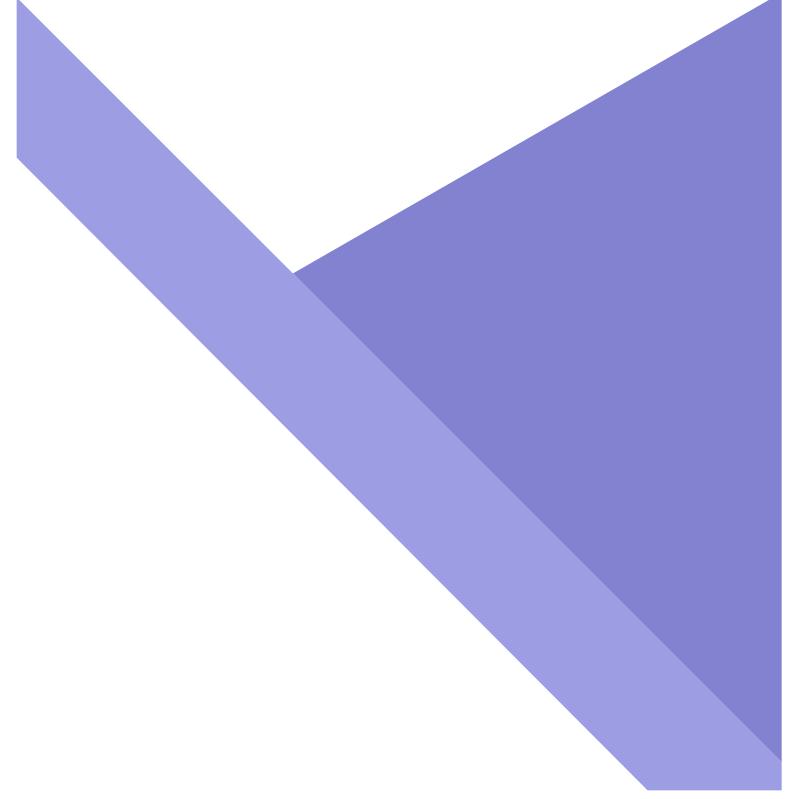


INTRODUCING

DENTAL LENS

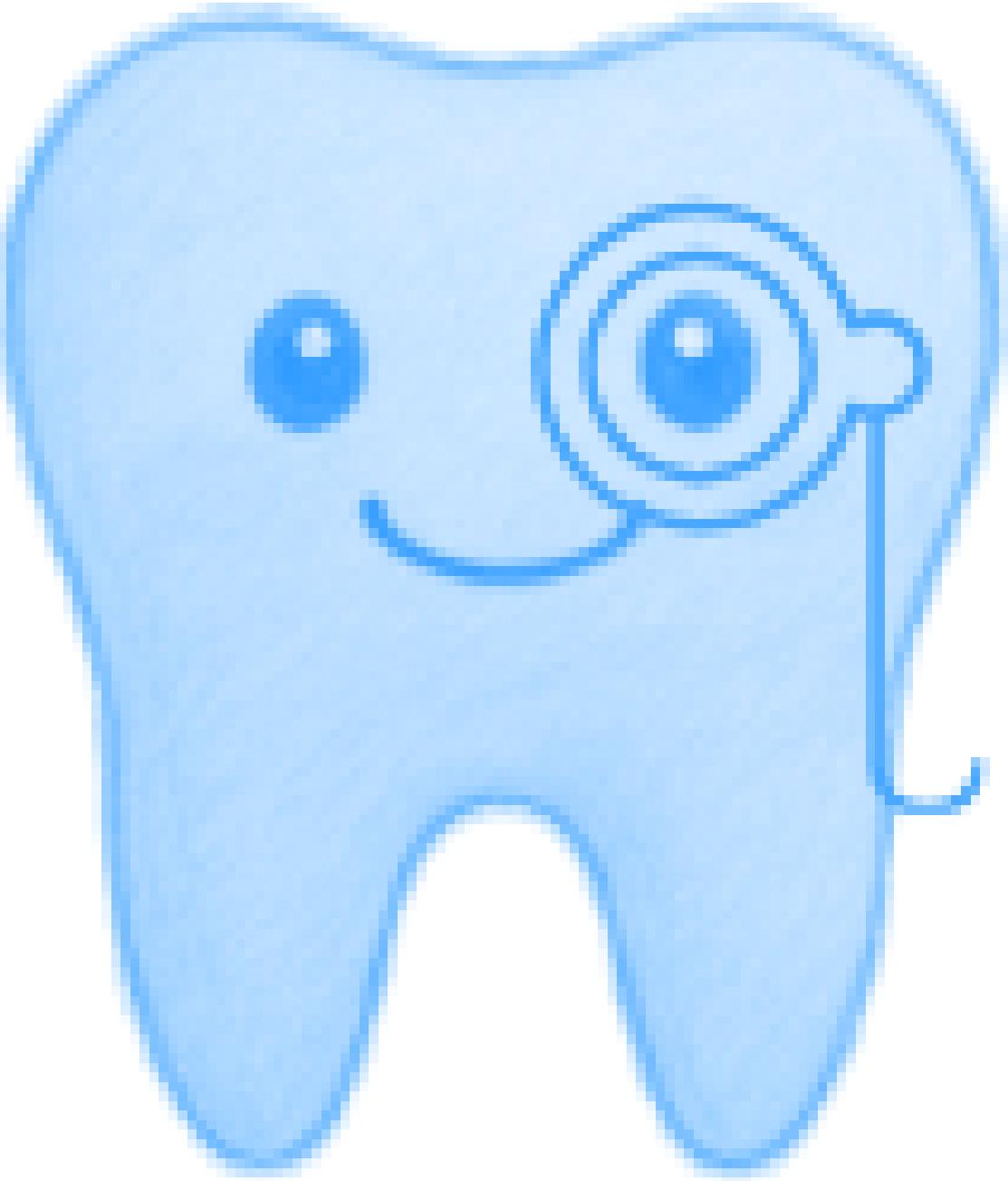


Dental Lens



What is Dental Lens?

DentalLens is a web app that allows users to upload or capture a photo of their mouth for an instant dental health check. It provides a quick, user-friendly way to detect possible oral issues and raises awareness about dental health before seeing a professional.



Dental Lens

FEATURES

- 
- 01 Scanning and Analyzing of teeth
 - 02 Personalized Videos
 - 03 Assistant Chatbot
 - 04 Tracker

Prototype Design



Dental Lens



Welcome dGuiri!

Teeth Health Overview

Teeth Scan History
Date: June 5, 2025
Result: Has 1 disease
Diseases Present:
Hypodontia

Latest Teeth Status:
Date: June 21, 2025
Result: Healthy
Diseases Present:
None

Actions to be taken:
Continue current oral hygiene!



See History

Check your Teeth's Health

Activate Teeth Scan



Check out these Health Tips to take better care of your Teeth!

GINGIVITIS & PERIODONTITIS
TOOTH DECAY & CAVITIES
DEVELOPMENT of the TEETH

OSMOSIS.org

See More Tips

Have any questions? Ask Denty!



Chat with Denty!

Create your Teeth Goals to achieve Better Oral Health!



Create Teeth Goals

Prototype Design



Dental Lens

Ready to check your Teeth's Health?

Scan Results

Diseases Present:

- Mouth Ulcer
- Confidence: 100.00%

Severity of Disease:

- Mild. Mouth ulcers are sores in the mouth that can cause discomfort. They are typically small, shallow lesions that appear on the soft tissues of the mouth.

Possible Causes:

Mouth ulcers can be caused by:
* Trauma (biting, toothbrush injury)
* Stress or anxiety
* Certain foods (acidic, spicy)
* Vitamin deficiencies (B12, iron, folate)
* Hormonal changes
* Medical conditions (celiac disease, Crohn's disease)
* Medications

Symptoms:

Mouth ulcer symptoms include: painful sores inside the mouth (tongue, cheeks, lips), burning/tingling sensation before the ulcer appears, difficulty eating/talking, and sometimes swollen lymph nodes. The ulcer usually appears as a white or yellow center with a red border.



Upload Images Here:

Choose Image

Image Preview:



Open Camera

Analyze Image

Prototype Design

Dental Lens

Personalized Dental Tips

7 Dental Care Tips

7 Dental Hygiene Tips Most People Don't Know

Watch on YouTube

Share

7 Dental Care Tips

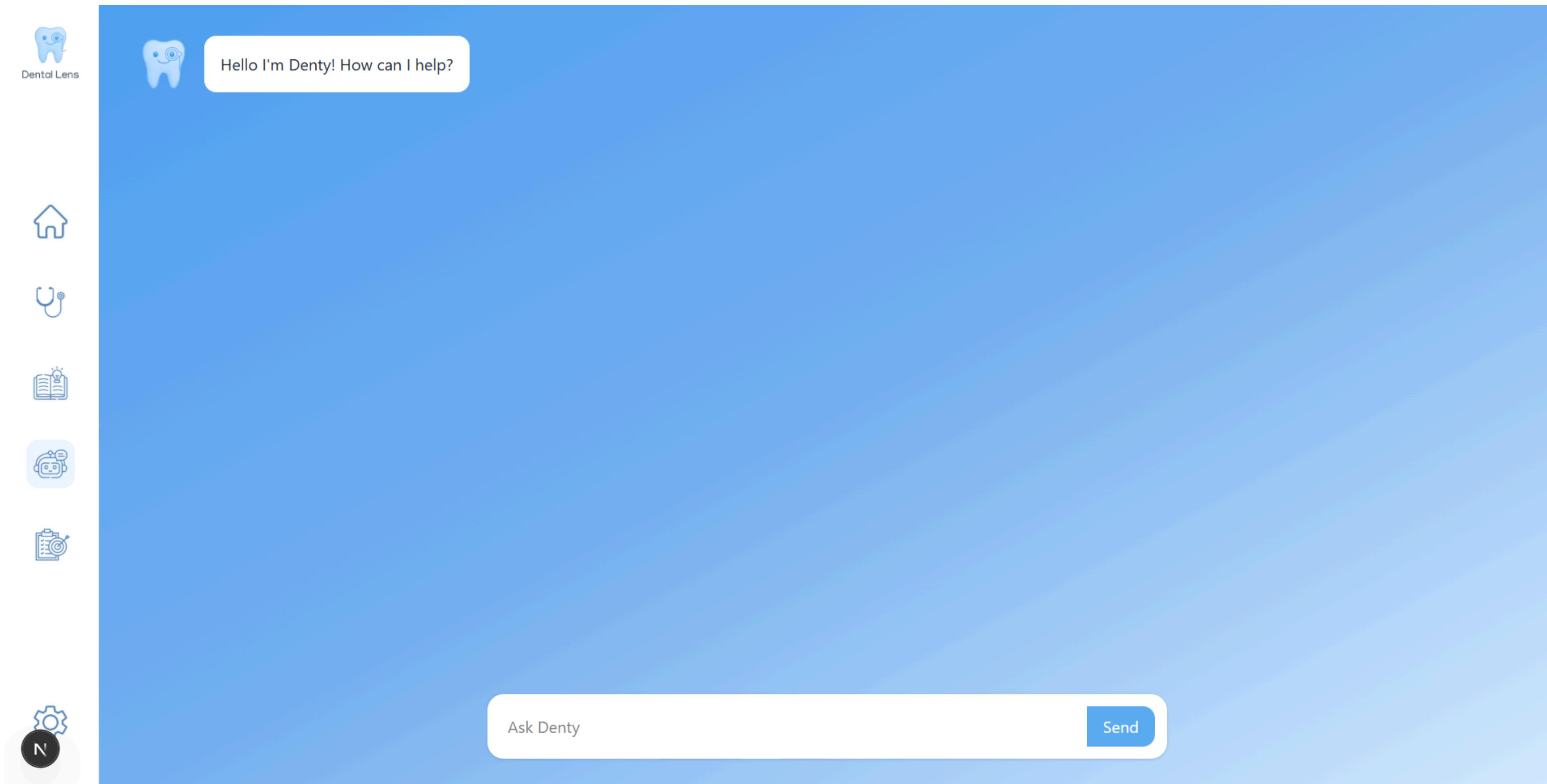
Brush Correctly

7 Tips For Healthy Teeth

N

The image shows a mobile application prototype for dental care. The main screen displays a video thumbnail titled "7 Dental Care Tips" featuring a woman smiling and a close-up of a mouth with white teeth. Below the thumbnail is a "Watch on YouTube" button. To the right of the thumbnail is a "Share" button. The main title "Personalized Dental Tips" is at the top. Below the main screen are three smaller cards: "7 Dental Care Tips", "Brush Correctly", and "7 Tips For Healthy Teeth". Each card has a small image and a green checkmark icon. On the left side, there is a vertical sidebar with several icons: a house (Home), a stethoscope (Dental Tools), a book (Information), a robot (Robotics), a clipboard (Checklist), and a gear (Settings). The "Dental Lens" icon is highlighted with a blue border. At the bottom left, there is a circular icon with the letter "N".

Prototype Design



Prototype Design



Dental Lens



< June >

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

23/06/2025

Tasks

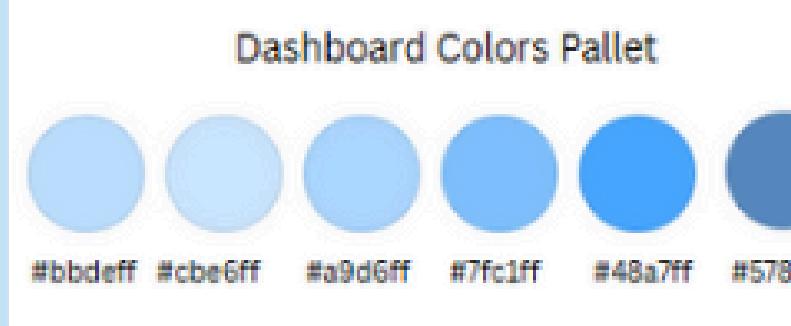
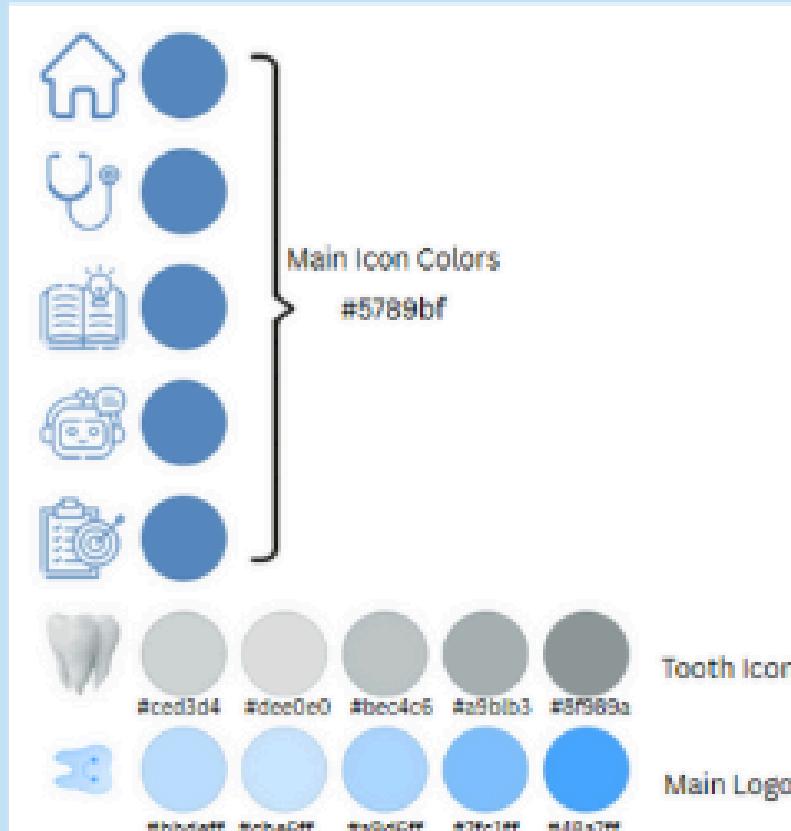
Floss Teeth

Brush Teeth

Enter task

Prototype Design

COLOR:



FONT:

Aa Bb Cc Dd Ee Ff Gg Hh Ii
Jj Kk Ll Mm Nn Oo Pp Qq
Rr Ss Tt Uu Vv Ww Xx Yy Zz
1234567890!@#%&*?,:;\$£€

AaBbCcDdEeFfGgHhIi
JjKkLlMmNnOoPpQqRr
SsTtUuVvWwXxYyZz
Roboto

The fonts mainly used in the web app design are Segoe UI, Roboto, and Sans Serif. The choice to use these fonts was intentional for a clean, modern, and professional interface. These fonts were chosen for their clarity, readability, and ability to deliver a consistent user experience across different devices and screen sizes.

Evaluation plan

PREPARE: Finalize the DentalLens prototype, test scenarios, surveys, and participant schedule.

LAUNCH: Invite users to try the app independently for unbiased feedback.

EVALUATE: Observe user interactions, guide as needed, and assess usability and accuracy through surveys.

DISCUSS: Review feedback and results to identify key insights.

CONCLUDE: Summarize findings and recommend improvements for user experience and functionality.

Evaluation Modes

USABILITY SPECIFICATION

Participants were asked to complete specific tasks while being timed to measure:

- Main Menu Task
- Image Upload Task
- View Recommendation Task
- Chatbot interaction Task
- Calendar Scheduling Task

HEURISTIC EVALUATION

The prototype was assessed using Nielsen's 10 Usability Heuristics

SURVEY AND FEEDBACK

Post-task surveys were conducted using:

- 5-point Likert scale to measure effectiveness, efficiency, and satisfaction
- System Usability Scale (SUS) for industry-standard usability scoring
- Open feedback for qualitative insights and UI improvement suggestions

Face to Face testing



Category	Average Score	Interpretation	Classification
Effectiveness	4.68	Highly Acceptable	Very Successful
Efficiency	4.72	Highly Acceptable	Very Successful
Overall Satisfaction	4.77	Highly Acceptable	Very Successful
Overall Average	4.72	Highly Acceptable	Very Successful

Usability Specification

Task Category	Completion Mean	Interpretation	Classification
Main Menu Task	0.12 min	Highly Acceptable	Very Successful
Image Upload Task	0.38 min	Highly Acceptable	Very Successful
View Recommendation Task	0.23 min	Highly Acceptable	Very Successful
Chatbot interaction Task	0.37 min	Highly Acceptable	Very Successful
Calendar Scheduling Task	0.14 min	Highly Acceptable	Very Successful

Usability Specification

Task Category	Completion Mean	Interpretation	Classification
Main Menu Task	0.12 min	Highly Acceptable	Very Successful
Image Upload Task	0.38 min	Highly Acceptable	Very Successful
View Recommendation Task	0.23 min	Highly Acceptable	Very Successful
Chatbot interaction Task	0.37 min	Highly Acceptable	Very Successful
Calendar Scheduling Task	0.14 min	Highly Acceptable	Very Successful

Heuristic Evaluation

The DentalLens prototype was evaluated using Nielsen's 10 Usability Heuristics. The system provides clear feedback through status indicators like loading animations and completed task markers. It uses familiar and understandable language, allowing users to navigate easily. User control is supported with flexible options to edit or delete tasks, and a sidebar helps users return to any page. The interface is consistent across features, minimizing confusion. Errors were rare, and when they occurred, such as invalid image uploads, users received helpful prompts. The design prioritizes recognition by displaying history and results without requiring re-entry. The minimalist UI, built with Tailwind CSS, ensures clarity and focus. Overall, DentalLens adheres well to usability principles, though clearer guidance for first-time users can further improve the experience.

Conclusion

The evaluation showed that users completed tasks efficiently with minimal errors, indicating strong usability and responsiveness. Heuristic analysis confirmed alignment with key usability principles, though some UI elements like sidebar icons need clearer labeling. Survey results reflected high user satisfaction, with an average score of 4.72. While SUS scores were moderate, feedback pointed to areas for improvement, especially in layout and guidance. Overall, DentalLens effectively meets its goal of providing a user-friendly and accessible dental health monitoring experience, with future improvements focused on enhancing support and visual clarity.



Thank You