Project title:
Diabetes Health Monitoring Application

Category: Health and well-being

Mentorship area needed:
UX design, Data Science, Web Development, AI

Project members:

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Description of the problem to be solved:
Families living far apart struggle to receive timely updates on the health issues (e.g., blood sugar levels) of elderly relatives and kids, which are essential for managing diabetes issues effectively and knowing the health status of their family members.

Description of the project idea:
Our project aims to develop an application to simplify diabetes management for individuals and families. The application seamlessly integrates with blood sugar monitoring devices, automatically logging glucose readings and providing real-time tracking.

It features customizable alerts to notify users of abnormal blood sugar levels and reminders for timely checks. A family sharing function enables real-time updates, helping loved ones stay informed and respond to emergencies even from afar. Users can visualize trends through clear graphs and gain predictive insights based on historical data, aiding better health decisions.

A web-based community platform fosters collective learning and support by connecting users to discuss challenges and share diabetes-related solutions. This application bridges the gap between individual health management and collaborative family support, empowering users to control their health proactively.

From our project the primary beneficiaries of the project include:

- **Diabetic Individuals**: The application directly supports individuals managing diabetes by offering accessible and practical tools for daily health tracking.
- **Family Members**: Particularly those living far away who wish to stay updated on their loved one's health and provide timely support during emergencies.
- **Diabetes Support Communities**: The web-based platform fosters collective learning and awareness among people facing similar challenges.

Milestone.

Following are some of the major milestones we have set for the project.

S. No.	Task Description (Milestones)	Deadline
1	Research information about the problem	04.12.2024
2	Conceptualize and ideate the platform	15.12.2024
3	Create the database and model for the platform	01.01.2025
4	Create the wireframing	03.01.2025
5	Prototype and Testing	15.01.2025
6	Project Report	18.01.2025
7	Final project presentation	22.01.2025

How and where do you document your project progress?

We will use several applications to document our progress and share the link among the members.

- **Slack**: This is for official communication between members and mentors of Tech Labs.
- **WhatsApp**: for the informal communication between members
- **Google Docs**: For the project documentation
- **Google Drive:** This is for storing files related to the project. i.e., images, docs, datasets, etc.
- **Miro**: For the overall rough idea sketch and idea brainstorming
- **Trello**: For overall project management, scheduling and task collaboration.
- **Figma**: For wireframes and app design

What data sources or other materials/inputs will you use or need to be found?
We will use primary and secondary data collection sources and other materials if necessary for the project.

- **Primary Source:** We plan to interview people closely related to diabetic patients to understand the problem in detail and conduct the survey for the problem and application development.
- **Secondary Source:** We will use various data sources from Kaggle, Hugging Face, etc., to understand the blood sugar pattern for predictive analysis, time-series analysis, and similar problem classification for blogs in community platforms.

What goals do you want to achieve until the project is handed in (22.01.2025)?
To create an easy-to-use platform that helps individuals and families manage diabetes together through functions as below:

1. Family Sharing: Enable real-time updates and reminders within a family group to share completed blood sugar checks or notify members of overdue checks, simplifying diabetes management.
2. Seamless Blood Sugar Tracking: Quickly and easily monitor daily blood sugar levels through a straightforward connection with physical Blood Glucose Metres.
3. Blood Sugar Visualization & Predictive Insights: Display clear blood sugar trends over time (daily, weekly, monthly) for better understanding and tracking. Then, set customizable alerts to prompt timely blood sugar checks by gaining insights into potential blood sugar fluctuations based on historical data.
4. Community Platform: Hosts a web-based platform for individuals to discuss challenges, share knowledge, and collaborate on solutions related to diabetes management.

Do you have a long-term goal/vision for this project? If so, please describe it briefly:
In the long term, we aim to enhance the platform's community-oriented features, transforming it into a comprehensive knowledge-sharing and collaboration space. Further, we plan to expand beyond blood sugar data to incorporate a broader range of health metrics, enabling the creation of detailed health profiles for users.
By leveraging this enriched dataset, the platform can offer more personalized insights and recommendations while providing valuable aggregated data for marketing purposes in partnership with companies. Such collaborations will drive

innovation, support tailored health solutions, and improve user engagement and experience.

Estimate: How many hours per week and per team member should you spend to reach your goal before the deadline?
About five hours per team member per week