Project Name

Company Tammen with CARE device

Project Idea

Tammen aims to bridge the gap in health awareness and improve access to medical care by introducing CARE (Clinical Assistant for Reading & Evaluation)—a smart health station resembling an automated kiosk, designed for placement in areas with limited or no access to medical services (such as metro stations and remote regions).

CARE is one of the company's key innovations, though not the only one. Tamen is committed to developing multiple health technologies that enhance awareness, prevention, and accessibility to healthcare.

CARE integrates health education, self-assessment, and emergency assistance into one system:

1. Instant Health Screening

Users can insert their national ID card to access personalized services. The device enables fast screening for blood pressure and blood glucose using integrated sensors. If abnormal values are detected, the system provides immediate support, such as sweetened water for hypoglycemia or safe guidance to stabilize blood pressure.

2. Emergency Guidance and Response

Through an interactive screen, users can report emergencies. The system provides immediate step-by-step instructions and simultaneously notifies emergency services with precise location tracking to reduce delays in critical care.

3. Referral to Nearby Health Facilities

CARE is connected to a database of healthcare centers, enabling it to direct users to the nearest clinic or pharmacy while showing available services.

4. Education and Awareness

The integrated screen continuously displays short, reliable medical tips covering daily health situations, popular topics, and myth-busting information, helping users learn preventive behaviors.

For safety, the device includes a facial-verification system to match users with their national ID, preventing misuse and ensuring secure data tracking.

Team Members (pentaRae)

1. Mohamed Hany Youssef El-Bokhary (Team Leader)
2. Sameer Samah Sameer Abdallah
3. Shorouk Osman Hassani Moussa
4. Al-Shaimaa Anwar Ali Mohamed
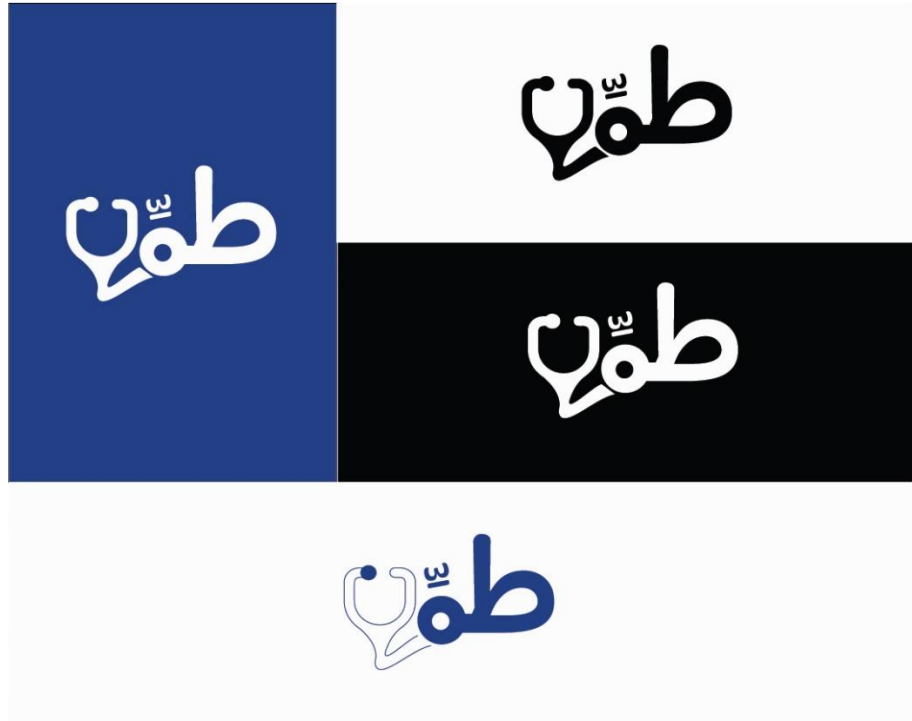5. Ahmed Hussein Abdelkarim Abdallah

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Work Plan

1. **Research & Analysis**

   o Audience personas

      • Hypertension patients
      • Diabetes patients
      • Cardiovascular diseases patients
      • Individuals living in remote areas with limited or no access to nearby medical centers

2. **Visual Identity**

   o Logo design:

3. **Main Designs**

   o Poster

4. **Complementary Products**

5. **Review & Finalization**

   All files : https://drive.google.com/drive/folders/15W_gPBi_yaQ4wCDb-HcdgCZcZRVFEWqV?usp=drive_link

6. **Final Presentation**

Final files:
https://drive.google.com/file/d/1CUVvGfXv4USWokqhItfDITA_YDugk5Re/view?usp=drive_link

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Roles & Responsibilities

- Mohamed Hany Youssef El-Bokhary: Team leader & matching the identity of all the files
- Sameer Samah Sameer Abdallah: UI & UX shape of the device and making the final shape of the device with AI
- Shorouk Osman Hassani Moussa: Presentation, social media, brochure, flyer and poster
- Al-Shaimaa Anwar Ali Mohamed: Website and Mood board
- Ahmed Hussein Abdelkarim Abdallah: Business card & Magazine

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- **KPIs (Key Performance Indicators) :**

1. System Performance Metrics

1.1 Response Time

• Measures how quickly the system responds, performs readings, and displays results.
• Target: 2–3 seconds for UI actions and under 10 seconds for measurement cycles.
• Ensures smooth use in high-traffic locations and for elderly users.

1.2 Machine Processing Efficiency

• Tracks speed and accuracy of blood pressure and glucose readings.
• Measures responsiveness of corrective-fluid dispensing.
• Includes session completion without errors or interruptions.

2. System Reliability & Availability Metrics

2.1 System Uptime

• Measures how consistently the machine stays operational.
• Target: 99% uptime to maintain public trust and accessibility.

2.2 Component Durability

• Evaluates sensor consistency and dispensing reliability.
• Tracks maintenance frequency and component performance over time.

3. User Experience & Engagement Metrics

3.1 User Adoption Rate

• Tracks daily/monthly users, return rates, and overall usage growth.

3.2 UI Accessibility Metrics

• Measures how easily first-time and elderly users complete sessions.
• Tracks session duration as an indicator of UI clarity.

3.3 Customer Satisfaction Index

• Includes user feedback ratings and reports of difficulties or confusion.

4. Health Impact & Quality Metrics

4.1 Measurement Accuracy

• Monitors compliance with medical accuracy standards and variance from manual readings.

4.2 Corrective Action Effectiveness

• Evaluates precision of fluid dispensing and improvement in user metrics after intervention.

5. Operational Efficiency Metrics

5.1 Cost Efficiency

• Tracks operating costs per session and overall resource usage.

5.2 Maintenance & Downtime Efficiency

• Measures repair speed (MTTR) and time between failures (MTBF).

5.3 Inventory Refill Metrics

• Tracks consumable usage and refill timeliness to maintain continuous service.

6. Financial & Business Growth Metrics

6.1 Revenue Metrics

• Tracks revenue per machine and the time needed to recover production costs.

6.2 Expansion Metrics

• Measures installation rate and compares performance across locations.

7. Safety, Compliance & Hygiene Metrics

7.1 Hygiene Compliance Rate

• Includes monitoring of cleaning cycles, surface sanitation, and nozzle safety.

7.2 Safety Incident Rate

• Tracks any user safety complaints or operational incidents.

7.3 Regulatory Compliance Score

• Ensures alignment with medical device regulations and quality certifications.

Instructor

***Suzan mohamed**

Project Files

You can find the full project files here:
https://drive.google.com/drive/folders/1HFECewxocyoGH1Z3pccXxvuoDAxR9hTe?usp=drive_link

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