SOLUTION HACKATHON

Project Report

This document will help your team clearly explain your project, making it easy for judges to understand and evaluate your work. Follow the sections step by step to ensure a complete and well-organized report.
The hackathon is all about solving real-world challenges in **Digital Healthcare, STEM Education, and Campus Life**. Your goal is to create an innovative and impactful solution using technology and creativity.
Be creative and practical. Keep it simple and clear. Most importantly, have fun!

Key Details:

- **Submission Deadline:** Submit your **presentation** and **report** using the provided templates **by 11:59 PM on February 18**.
- **Selection Notification:** Team leaders will be notified **by 12:00 PM on February 19** if their team has been selected to present their project to the judges. See judging criteria at the end of this document.
- **Presentations:** Selected teams will present their projects to the judges starting at **6:30 PM on February 19**.
- **Attendance:** If your team is not selected to present, you are still invited to attend and observe other teams' presentations to gain insights and learn from their innovative solutions.

Team and Project Information

- Team Name: Cyber Girls
- Team Members: (full names and roles of all members)
  - Lamees Medhat Alikhwan: UX Designer
  - Nora Ahmed Alkuwahies: Content Developer
  - Reem Essam Abdelgawad: UI Designer
  - Sarah Abdulhadi Alabkari: Team Leader
- Contact Email: Sa.alabkari@gmail.com
- Contact Phone Number: +966 56 707 116
- Project Name: AI-d

Problem Statement

- Describe the problem your project aims to solve.
  Many people hesitate to administer first aid due to lack of knowledge or confidence, leading to delays that significantly reduce survival rates in emergencies. Traditional resources like online guides or emergency calls are time-consuming and often hard to follow under stress.

- Why is this issue important?
  Delays in first aid can be fatal, as quick intervention significantly increases survival rates. In many emergencies, help isn't immediately available due to remote locations or slow response times. Traditional first aid guides can be difficult to follow under stress, leading to hesitation or mistakes. AI-d addresses this issue by providing real-time and voice-guided instructions, making first aid faster, more accessible, and easier to perform correctly when it matters most.

- Who is affected by this problem?
  This problem affects anyone who may experience or witness a medical emergency, including accident victims, individuals with medical conditions, bystanders, and caregivers. It also impacts emergency responders by reducing the severity of cases they handle and healthcare systems by potentially lowering hospital admissions due to timely first aid intervention.

Proposed Solution

- Provide an overview of your solution.
  AI-d aims to ease the access to first aid guidelines in emergency cases that are listed under the Ministry of Health's documentation through textual, audial , and visual Generative AI assistance. In addition, it facilitates contacting and locating the nearest emergency point.

- How does it address the problem effectively?
  It takes the input about the situation in a user friendly manner and provides trusted guidance to help the patient. It also provides a list of important emergency contacts, nearby medical centres and alerts them by default when needed.

- What makes it innovative or unique?
  AI-d's AI is trained to provide trusted information in a lively manner from the Ministry of Health's documents.

Technical Implementation

- Technologies, frameworks, or tools used.
  We used Figma to develop the prototype of the system and used Canva to tailor the presentation slides. The AI-d application is currently a prototype and thus we have not used technical tools to implement it.

- High-level architecture or system design.
  The architecture consists of Presentation Layer and Data Layer.

  1- Presentation Layer (Frontend - User Interface in Figma): this layer is responsible for user interactions, UI components, and AR-like guidance simulation. Developed using Figma, providing a fully interactive prototype.
  2- Data Layer (Static Data Source - Ministry of Health Guidelines): Stores and retrieves first-aid information from trusted Ministry of Health documentation. AI assistance is simulated using predefined logic, mimicking real-time responses.

- Implementation challenges and how you addressed them.
  We faced a challenge in determining whether the AI should generate responses or strictly use Ministry of Health-approved data, as generative AI could introduce inaccurate or misleading information. We, with the help of out mentor, decided to make the system's information be strictly based on the data provided by the Ministry of Health.

Impact and Feasibility

- Expected impact of the solution.
  Our solution is expected to increase the possibility of helping those facing situations that need immediate first aid leading to increased recovery and saving of lives in emergency situations.

- How scalable and sustainable is it?
  To prevent legal and ethical issues, AI-d will only cover first aid scenarios officially approved by the Ministry of Health. The system will cover the languages of English and Arabic and it provides textual, audial, and visual guidance which can ensure that users of different abilities and disabilities can use the product.

- Potential challenges and future improvements.
  Potential improvements can be based on the information provided by the Ministry of Health. That is, when more cases are approved, the system should reflect and be able to integrate them as well as it did with the current ones. When

the regulations regarding Generative AI are set in place and the stakeholders that can be held accountable for its actions and information are defined well, the system could integrate Generative AI to increase the scope of situations the system covers.

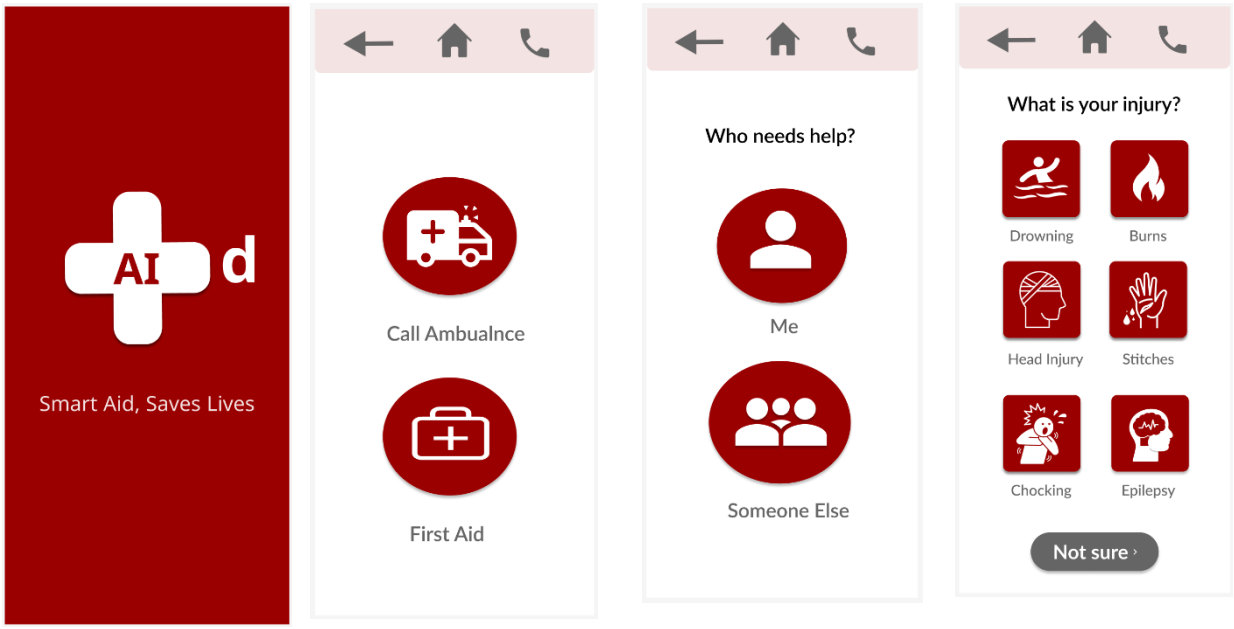
Demo and Presentation

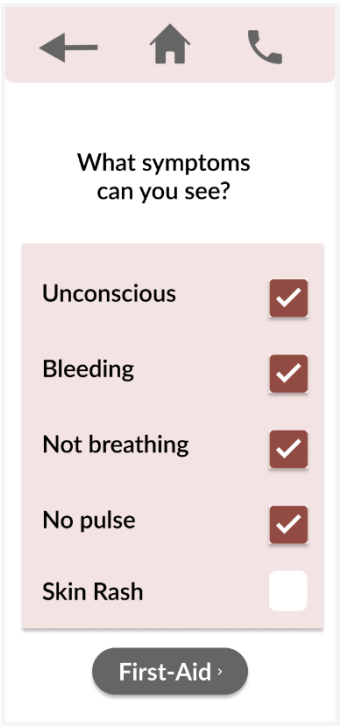
- Provide a link to your project demo (if applicable).
- Attach any necessary presentation slides.
  The link to view the slides is below:

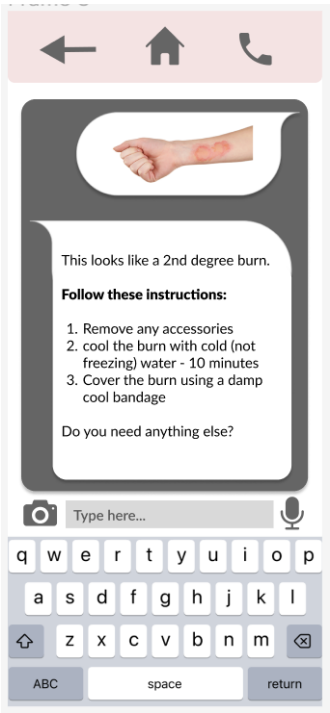
  https://www.canva.com/design/DAGfeOqIuIA/vT3XBc_PzHTF_CZglZc92g/edit?utm_content=DAGfeOqIuIA&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton

Additional Materials (if any)

The wire frame of the system is below:







Team Reflections

- What was the most valuable lesson from this experience?
  We learned the importance of mapping real-life scenarios to refine our system's problem definition and solution approach. We have also realized how important it is to consider legal factors and constraints on digital systems, especially those that use AI.

- What obstacles did your team face, and how did you overcome them?
  The time constraint was the hardest obstacle we faced, and we were able to solve that by clearly identifying the problem and the solution we want to deliver. Clear distribution of tasks also helped us hold each other accountable for delivering different aspects of the system.

Project Evaluation Criteria

Criteria	Points	What It Means
Innovation & Creativity	20	Is your idea original and exciting?

Relevance to Challenge	15	Does your project solve the intended problem?
Technical Feasibility	20	Can this solution realistically be built and used?
Impact & Scalability	20	Will this project make a real difference and grow?
User Experience & Design	10	Is it easy to use and well-designed?
Presentation & Pitch	10	Did your team explain the project well?
Team Collaboration & Effort	5	How well did your team work together?
Total Score	**100**	

If you have any questions, feel free to reach out to us at su.saudi.society@ucl.ac.uk

Best of luck, and thank you for being part of the Solution Hackathon!