**AI4Purpose Hackathon Instructions: Caregiver Support Challenge**

Welcome to the AI4Purpose NYC AI Workshop virtual hackathon! You will work with a de-identified 18-month dataset comprising three files of an individual with complex care needs:

* Patient X - Jan 1 to June 30, 2024
* Patient X - July 1 to Dec 31, 2024
* Patient X - Jan 1 to June 28, 2025

Your objective is to develop a solution that empowers caregivers by leveraging real-world data. Choose **one** of the following two use cases to explore and prototype.

***Dataset Overview***

The dataset includes:

* **Time-series health vitals**: Sleep patterns, heart rate, oxygen saturation, breathing rate
* **Text-based caregiver notes**: Logged observations and daily care activities

***Use Case #1: Smart Summarization***

Design a feature that summarizes data over selectable time ranges (e.g., day, week, month, or custom). The goal is to generate caregiver-friendly reports that simplify decision-making by highlighting meaningful trends and events.

**Reference: Smart Summarization FR-AIFG document**

***Use Case #2: Speech-to-Text Categorization***

Develop a feature that transcribes spoken caregiver notes and categorizes each sentence as either:

* **Observation** (e.g., “She had a mild fever this morning.”)
* **Activity** (e.g., “I gave her medication at 9 AM.”)

This enables faster, hands-free documentation of caregiving.

**Reference: Speech to Text FR -AIFG document**

***Hackathon Timeline***

* 7/4/25 - Hackathon team registration closes.
* 7/5/25 - Hackathon datasets are released to teams via the Instats platform and teams began work on their solution.
* 7/8/25 - Participant training session will be conducted with teams to address any questions. Refer to Instats platform for meeting logistics.
* 7/13/25 - Hackathon solution work is completed, and teams must submit presentations to [ai4purpose@gmail.com](mailto:ai4purpose@gmail.com) and [asandoval7652@gmail.com](mailto:asandoval7652@gmail.com) no later than 7 pm ET
* 7/14/25 - Presentation sessions will be held for each team category (high school, college, professional) with teams presenting their solution to the judges. Refer to Instats platform for meeting logistics.
* 7/20/25 - Winning teams will be awarded prizes during the conference.
* TBD – AI4Purpose will host a larger open session where all teams will have the opportunity to present their solutions to a large audience including friends and family members.

**Final Deliverables**

Each team must submit their final presentation to [ai4purpose@gmail.com](mailto:ai4purpose@gmail.com) and [asandoval7652@gmail.com](mailto:asandoval7652@gmail.com) no later than 7 pm ET on 7/13/25:

1. **5 - 6 slide presentation** covering:
   * Team name & team members
   * One-page summary of the solution
   * Problem tackled and why
   * Technical approach
   * Key features and functionality (including demo link or working prototype - app, UI mockup, or codebase)
   * Potential caregiver impact

**Judging Sessions & Evaluation Criteria**

All teams will be asked to join a judging session on 7/14. Additional meeting information to be sent to teams via the Instats platform. During the 7/14 presentations, teams will be given 10 minutes to present their slides. An additional 5 minutes will be given for Q&A. Judges will use the rubric included below to evaluate team performance.

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| **Judging Criteria\*:** |
| **Significance:** Does the project address an important problem or a critical barrier? If the project goals are achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved? |
| **Team:** Is there a diverse set of skills in the team make-up? Do the team members have complementary and integrated expertise well suited to complete the project? Has the team dynamic resulted in a comprehensive, cohesive solution? |
| **Innovation:** Does the project solution challenge and seek to shift current research or clinical practice paradigms by utilizing novel theoretical concepts, approaches or methodologies, instrumentation, or interventions? Is a refinement, improvement, or new application of theoretical concepts, approaches or methodologies, instrumentation, or interventions proposed? |
| **Approach:** Are the overall strategy, methodology, and analyses well-reasoned and appropriate to accomplish the goal of the project? Are potential problems, alternative strategies, and benchmarks for success presented? If the project is in the preliminary stages of development, will the strategy establish feasibility, and will particularly risky aspects be managed? |
| **Storytelling:** Did the team present a cohesive and concise narrative of how they approached the problem? Did the team show success and challenges encountered during the development process? Did the team articulate final results, and potential future expansion opportunities? |
| **Impact:** How will successful completion change the concepts, methods, and/or technologies in this field? Are the integration opportunities and challenges identified and impacts to existing systems & applications mitigated? |

\*Adapted from NIH Scoring Methodology & Core Criteria Definitions [Scoring & Summary Statements | NIAID: National Institute of Allergy and Infectious Diseases](https://www.niaid.nih.gov/grants-contracts/scoring-summary-statements) & [Review Criteria SOP | NIAID: National Institute of Allergy and Infectious Diseases](https://www.niaid.nih.gov/research/review-criteria)

**Tips for Success**

* Focus on simplicity, empathy, and ease of use
* Design with the end caregiver in mind — busy, often stressed, and in need of clarity
* Use the dataset to identify trends and real-world caregiving challenges
* Optional enhancements (charts, flags, recommendations) are encouraged

For technical support or clarifications, please contact Vik Sharma ([vik@mirakare.com](mailto:vik@mirakare.com)) or Anna Sandoval ([asandoval7652@gmail.com](mailto:asandoval7652@gmail.com)).

Good luck—and thank you for building solutions that support caregivers!