HfLA website: Dashboard Roadmap: Participant Reco…

Hack For LA Website

HfLA

Participant Record

Dashboard

Development

Roadmap

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Background

The first two participation had flexible hours. In the first participation, the weekly meeting with their career mentor enforced the total number of volunteer hours. The second participation (2022 cohort), did not have 1-on-1 mentorship meetings and the participants did not do the required amount of hours. The participation record Google form and the participation record dashboard were meant to do that enforcement, but the dashboard was not available until the end of the mentorship.

Dashboard Goals and Objectives

- Teach participants and OPT participants how to use participation records and to incentivize them to put in the time they promised, even when working flexible hours.
- Mentors and Program leads being able to view the self reported hours, participants contributed to their designated project each week.
- Visualize the summary size/points of the issues the user was or is assigned to or matched with.
- Allows for a Comparison of the hours reported (on the dashboard) with the size/points completed (manual), identifying discrepancies
- Share dashboard data with other dashboards (e.g., Issue Size Estimation Accuracy)

Participants

Users

- Participants
- people who need verification of their hours by an external entity (school, justice system, visa, etc.)

Maintainers

- Hack for LA Website Team
- Data Science Team

Location

The dashboard will be accessible at

- the participation project board
- In volunteer agreements for OPT program
- https://hackforla.org/toolkit

Requirements

Technical

- **Tools Used:**
    - Google Forms
    - Google Sheets
    - Looker Studio
    - Google Apps Script

    - Python
- **Platform:** Google Workspace
- **Deployment Workflow**: HfLA Participant Record Apps Script Web App Deployment
- **Data Model & Schema**: The data structures for this project are defined through working spreadsheet examples rather than a formal schema document. Developers should refer to the following files as the primary data reference:
    - **TWE: ISXX Participant Record: ID: XXX** — the participant record spreadsheet template, showing all tab names, activity categories, column headers, and field names used in weekly participation tracking
    - **TWE: IS26 Participant Record: ID: 003 & 005 — Sample data** — populated examples of the same structure across multiple weeks, including the Engagement Audited tab
    - **Permissions Analysis** — defines every tab across every spreadsheet, with read/write access rules per role (User, Peer Mentor, Org)

These documents establish the working structure of the data. However, the following formal definitions are not yet documented and will need to be completed before or during development:

- **Field types** — data type for each field (e.g., is `ID` a string, integer, or UUID? what format is `Start Date` stored in, and in what timezone?)
- **Allowed values** — enumerated options for fields like activity type, audit status, and user status

- **Primary keys** — what uniquely identifies a row in each table (participation record, engagement, user)
- **Relationships between sheets** — how records in one sheet reference records in another (e.g., how a `Time_Reports` row links to an `Engagements` row)
- **Field constraints** — maximum lengths, required vs. optional fields, and any validation rules

Until a formal schema document exists, developers should treat the sample spreadsheets as the source of truth for structure and raise questions about the items above during kickoff.

Skills

- Dashboard creation using Looker and Google Sheets API.
- Familiarity with Google forms.
- Automation with Google Apps Script.

Teams

Responsibility	Website Team	Data Science Team	Admin	TWE (Participation team)	External Entity (School, Visa, etc.)
Writing requirements	✔		✔	✔	
Analyzing the data	✔	✔			

Using the dashboard	✔		✔	✔	✔
Identifying new features	✔		✔	✔	
Creating dashboards		✔			
Maintaining the dashboard	✔				
Write APIs		✔			
Setup Google Sheets		✔			
Create looker dashboard		✔			
Identify enhancements (post MVP)	✔		✔	✔	

Acceptance Criteria

1. **Incentivizing Participants to Put in Time**
    - The User Dashboard displays a visual comparison of self-reported hours against expected hours, by week and for the program length.
    - The dashboard utilizes visual indicators (emojis) on the User Dashboard to reflect performance against weekly expectations (e.g., Over, Meets, 99.9-71%, 70% or less).
    - The All Users Report calculates and displays the percentage of users meeting their weekly hours targets (unaudited).
    - The All Users Report identifies and lists users who consistently fall short of expected hours for two consecutive weeks.
2. **Mentor and Program Lead Visibility**

- The All Users Report is accessible to Mentors and Program Leads and displays a weekly breakdown of self-reported hours contributed by each participant.

3. **Visualization of Issue Metrics**
    - The dashboard successfully retrieves and displays the total summary size/points of issues assigned to or matched with a user.
4. **Comparison and Discrepancy Identification**
    - The dashboard displays a direct, week-by-week comparison between self-reported hours and the size/points completed (manual).
    - The audit process, viewable on the User Dashboard's Audit Data section, includes the audit result "Failed: Time did Not Match Contribution Output" to flag discrepancies between reported hours and contribution output.
5. **Data Sharing**
    - The underlying dashboard data source (Google Sheets) is structured to be accessible and usable by other HfLA dashboards (e.g., Issue Size Estimation Accuracy).

Version Definition and MVP Scope

This roadmap is intended to be a living document. The features included in the Minimum Viable Product (MVP), defined as V3, are listed below. A complete comparison of features across all versions (V1, V2, V3 - MVP, and V4 - future features) can be found in the Participant Record - Competitive or Comparative Analysis spreadsheet.

V3 (Current MVP) Features

The following functionalities are in scope for the current MVP build (V3):

- **Reporting & Data Access:**
  - Participant and Program Manager can view the total hours reported.
  - The dashboard will display the dates of weeks contributed and the project contributed to.
  - The dashboard will be published as a web app, filtering data based on user-provided credentials (ID & access code).
  - Program Manager can view all participant data and unique volunteers' data in one place.
  - Data is formatted so non-Google Drive users (e.g., Mentors) can view it.
- **Participant Engagement & Metrics:**
  - Features to teach participants and incentivize them to put in promised time, even with flexible hours.
  - Detailed and summarized reporting of contributed hours vs. expected hours by week, month, and program length for both Participant and Program Manager views.
  - The system will compare expected hours against actuals, including a mechanism to flag a user if they fall 50% below expected hours for two consecutive weeks.
  - The dashboard will display contribution types (solo work vs. meetings/workshops).
- **Audit & Maintenance:**
  - The dashboard displays an audit status, including the process for an “Engagement Audited” tab on the participation record spreadsheet.
  - Includes lock/unlock codes for participation records.
  - If no record is submitted for two weeks, the user's permissions change to Viewer, and a tab explaining why is added.

- Make-up hours reconciliation requires the evaluation of providing an unlock code to zero out results for resubmission.
- **User Management (All Users Report):**
    - The All Users Report lists active users, top contributors, and users who took excused breaks or are classified as Inactive (abandoned participation).
    - Tracks the number of engagements for both Participant and Program Manager views.
    - Participant PII is protected by displaying the participant number instead of their name.

Timelines

List the timelines needed to plan, develop and test (this should be very general). List any deadlines

- Before the next participation
- Before we can resume the OPT program

Follow-up Options

Update the following wiki pages

- https://www.hackforla.org/toolkit/
    - Add a card under this page that links to the dashboard
- https://github.com/hackforla/data-science/wiki/Our-Work
    - Add a page under this page that details the dashboard

Analysis types

Stratification, Time Series and Predictive

Provide detailed and summarized reporting of X by the following:

- Week
- Average week by month
- Average week over whole engagement
    - Total number of weeks

X =

- reported hours
- summary size/points of the users issues
- Compare the hours reported with the size/points completed, identifying discrepancies

Dashboard Plan and Links

- Project Board with all the Dashboard Issues: HfLA Dashboards: Project Board, Participant Record Tab
    - label: feature: participant record dashboard
- This document is a subset of the Overall Dashboard Roadmap HfLA website: HfLA Dashboard Development Roadmap
- Participant Record (Google Form) TWE: IS22 Participant Record
- Participant Record makeup entry (Google Form) TWE: IS22 Participant Record - makeup entry

- Participant Record response (Google Sheet) TWE: IS22 Participant Record (Responses) sheet
- Participant Record Dashboard All Participants
- The participant record/looker tutorial used by the person creating the participant record form
- Spreadsheet Dashboard - Participant Record - Competitive or Comparative Analysis

Tab 2