

ECD Innovation challenge Dashboard Requirements (Problem Statements C & D)

This document outlines the mandatory dashboard requirements for participants of the AI-Based Early Childhood Development (ECD) Innovation Hackathon, aligned specifically with Problem Statements C (Decision Support & Performance Monitoring) and D (Longitudinal Impact Measurement).

1. Problem Statement C: Decision Support & Performance Monitoring

Participants must build dashboards that enable ICDS frontline workers and administrators to take timely, data-driven action for children at developmental risk.

Mandatory Dashboard Outputs (Problem C)

Screening & Coverage

- Total children screened (0–6 years)
- No. of assessments per Anganwadi Centre (AWC)

Risk Stratification

- Children classified into Low / Medium / High / Critical risk
- Age-band wise developmental risk counts
- Domain-wise delay burden (GM/FM/LC/COG/SE)

Referral & Action Support

- No. of children identified for referrals
- Referral completion rate
- Average time from risk flag → referral completion
- Recent referral list with urgency labels

Workforce & System Performance

- No. of ICDS functionaries trained (CDPOs, Supervisors, AWWs)
- Mode of training (Physical/Virtual/Hybrid)
- Parent digital access (Smartphone vs Keypad)
- No. of parents sensitized
- No. of parents assigned interventions

2. Problem Statement D: Longitudinal Impact Measurement

Participants must demonstrate longitudinal monitoring of child development outcomes and intervention effectiveness over repeated assessments.

Mandatory Dashboard Outputs (Problem D)

Progress & Trend Tracking

- Improving vs Worsening developmental trends
- Follow-up compliance rate

- Reduction in delay months (baseline vs follow-up)
- Exit from high-risk category rate

Outcome Monitoring

- Referral outcome distribution (Pending/Completed/Under Treatment)
- Intervention effectiveness indicators
- Domain-wise improvement rates

3. Required Delay Severity Breakdown

Dashboards must include counts of children by delay severity:

- No delays
- 1 delay
- 2 delays
- 3 delays
- 4 delays

4. Dashboard Governance Layers

Dashboards must be designed for the following governance levels:

- Anganwadi Centre (AWW View)
- Sector Supervisor View
- Mandal / CDPO View
- District Officer View
- State-Level Strategic View

5. Aggregation Requirements

All indicators must support roll-up aggregation at:

- Child Level
- AWC Level
- Sector Level
- Mandal Level
- Project Level
- District Level
- State Level

6. Dataset Sheet Mapping (Hackathon Release)

Participants should use the provided synthetic dataset sheets:

- Child_Profile / A_Registration
- Developmental_Risk (five domains)
- Neuro_Behavioral
- Nutrition_Extended
- Environment (stimulation score)
- Baseline_Risk_Output
- Referral_Action & Referral_Logic
- Intervention_FollowUp and Outcomes_Impact

7. Evaluation Focus

Submissions will be evaluated on:

- Completeness of required KPIs
- Scientific validity of scoring and trends
- Interpretability and usability for ICDS staff
- Scalability across Andhra Pradesh
- Privacy-by-design and DPDP compliance