Homework 2 Design

***Product*:**
An AI-driven oral-first learning platform (mobile app + optional physical kits) that introduces children to stories, vocabulary, songs, and hands-on activities in their mother tongue, gradually scaffolding toward print awareness.

Stakeholders

- **Users (Primary):**
  - Children aged 4–8 in rural India who are not yet fluent readers.
- **Customers**
  - NGOs focused on literacy & child development.
  - Government programs (Anganwadis, rural schools).
  - Parents (low-cost subscription or community kits).
- **Other Stakeholders:**
  - Local storytellers, illustrators, educators, and AI developers.

User:
A **child who cannot read independently** but can listen, speak, and interact visually and orally.

Use case:

- A child opens the app during "Monsoon" season.
- The AI narrates a short story in the local language with pictures/animations.
- The child taps on rain images when prompted and repeats new words aloud.
- The app encourages a craft (make a paper umbrella), guided entirely by visuals + audio.
- Gradually, the same words begin appearing on-screen with audio highlighting → linking sound to text

Painpoint:

- Early learners often lack **access to age-appropriate, oral-first educational content**.
- Existing resources assume **basic literacy** or rely heavily on English.
- Parents/teachers in rural India may be **illiterate themselves** and unable to guide.
- Digital tools usually don't adapt to **low literacy, low connectivity, or local culture**.

Success Criteria:

- Children actively **engage with and recall** new vocabulary.
- Parents/teachers report children **retelling stories** or singing new rhymes.
- Measurable increase in **oral comprehension → print recognition** milestones.
- The product works **offline**, uses **local languages**, and is affordable.

Similar Existing Products and Differentiation:

- **Pratham's StoryWeaver:** Free local-language stories, but static (no AI, oral interactivity, or adaptation).

- **Khan Academy Kids:** Engaging but **not localized to Indian rural contexts**; requires more English literacy.
- **Byju's Early Learn:** Strong visuals but **urban-focused and expensive**.

Differentiation:

- **AI personalization** → dynamically adapts story length, language mix, and difficulty.
- **Oral-first design** → no reading required at the start.
- **Offline-first** → content accessible without internet.
- **Cultural relevance** → stories/activities tied to rural life, festivals, and daily environments.
- **Hybrid (Digital + Physical)** → crafts and games using low-cost local materials.

User Journey of Primary User (Child, Age 6, Pre-Reader)

Onboarding

- Teacher/parent selects a theme (e.g., "Market Day").
- Child is greeted by a character who introduces the theme in their local language.

Storytime (Oral & Visual)

- AI narrates a short illustrated story.
- Child listens, looks at pictures, and taps objects when prompted.

Interactive Vocabulary Play

- AI introduces 3–4 key words ("mango," "basket," "cow").
- Child repeats them → voice recognition gives encouraging feedback.
- Matching game: drag picture of mango to basket.

Hands-On Activity

- Child is guided by visuals/audio to make a paper basket with strips of paper.
- Parents/teachers don't need to read instructions.

Print Awareness (Optional)

- Words appear on-screen with audio highlighting.
- Child begins associating sounds with letters (without pressure).

Reflection & Sharing

- AI prompts: "Tell the story to your friend/parent."

- Option to record the child's retelling.

Adaptation Loop

- If a child struggles with repeating words, AI simplifies the story next time.
- If a child engages strongly, AI adds more vocabulary and slightly longer storylines.