

# AI for Bharat Hackathon

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Team Name : ClarityPath AI

Team Leader Name : Vansh Gupta

# Problem Statement : AI for Learning & Developer Productivity

## BRIEF ABOUT THE IDEA:

**Concept:** ClarityPath AI is an intelligent Career GPS that layers on top of free internet content. We stop students from "collecting certificates" and start them building careers through active, verified execution.

### Core Value Proposition:

#### No Video Hosting

We don't sell courses. We curate the world's best free resources (YouTube, Docs) to zero-cost learning.

#### No "Certificate Collecting"

We validate skills. Our AI acts as a TA, grading Proof-of-Work code, not multiple-choice quizzes.

#### From Confusion → Clarity

Visual Roadmaps: We turn vague goals ("I want a job") into dynamic Skill Trees (just like a game).

#### From Watching → Doing

Active Execution: We replace passive "tutorial watching" with daily, AI-Verified Micro-Tasks.

**Your solution should be able to explain the following:**

**1. How different is it from any of the other existing ideas?**

- Most platforms focus on courses, videos, and certificates.
- ClarityPath AI focuses on guidance, decision-making, and outcomes.
- We do not host content; we structure and validate learning using free resources.
- Unlike chatbots, ClarityPath AI acts as a mentor and validator, not an answer generator.

**2. How will it be able to solve the problem?**

- Converts vague goals into clear, personalized skill roadmaps.
- Breaks each roadmap step into small, practical micro-tasks.
- Guides students to the right free resources at the right time.
- Uses AI to verify real work, ensuring skills are actually built.
- Maps progress directly to job-readiness outcomes, not certificates.

**3. USP of the proposed solution**

- Skill → Roadmap → Outcome visualization
- No video hosting, no certificate dependency
- AI-verified proof-of-work instead of passive learning
- Designed for Tier-2 and Tier-3 Indian students
- Lightweight, free, and scalable “guidance layer” model

## List of features offered by the solution

### 01. AI Goal Parser

- Converts vague goals like “learn coding” into clear skill tracks
- Suggests paths (Frontend, Backend, Data, etc.) based on user background

### 02. Personalized Visual Skill Roadmap

- Generates a dynamic, visual skill roadmap
- Shows what to learn, in what order, and why
- Skips already-known basics to avoid repetition

### 03. Curated Free Learning Resources

- Recommends the best free YouTube videos and official documentation
- Each resource is linked with a clear learning purpose
- Resources are suggested only when needed, not dumped as links

### 04. Daily Micro-Tasks (Active Learning)

- Breaks each skill into small, practical tasks
- Focus on doing and building, not just watching
- Tasks are contextual and job-relevant

### 05. AI Proof-of-Work Validation

- Students submit code, screenshots, or GitHub links
- AI checks whether task requirements are met
- Provides feedback and hints instead of direct answers

### 06. Gamified Progress Tracking

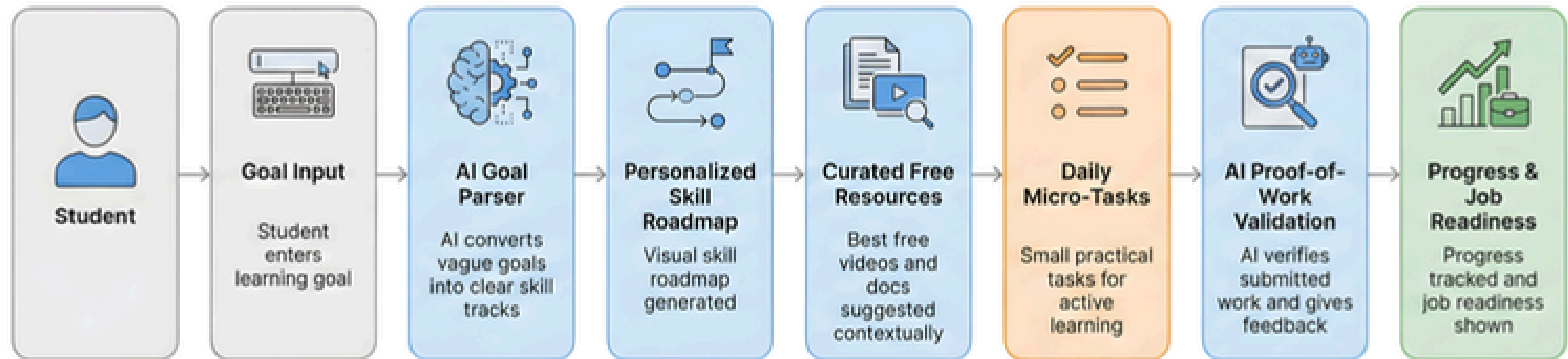
- XP points, streaks, and milestone unlocks
- No negative marking, encourages consistency
- Supports streak protection to reduce dropouts

### 07. Job Readiness & Outcome Mapping

- Shows what opportunities a student is ready for
- Maps progress to internships, freelancing, or entry-level jobs
- Focuses on real outcomes, not certificates

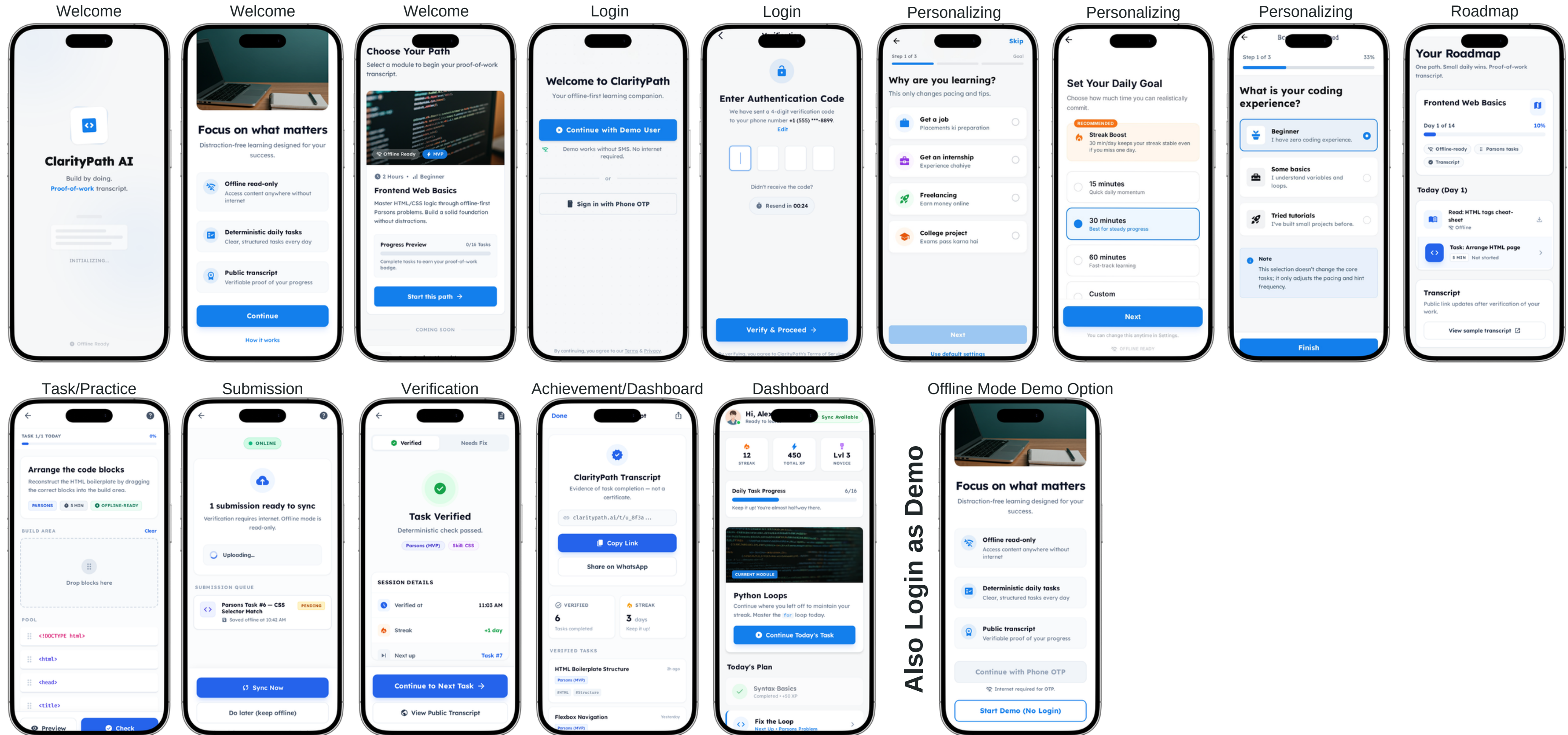
## Process flow diagram or Use-case diagram

Add a flow diagram or a use case diagram or an architecture diagram.

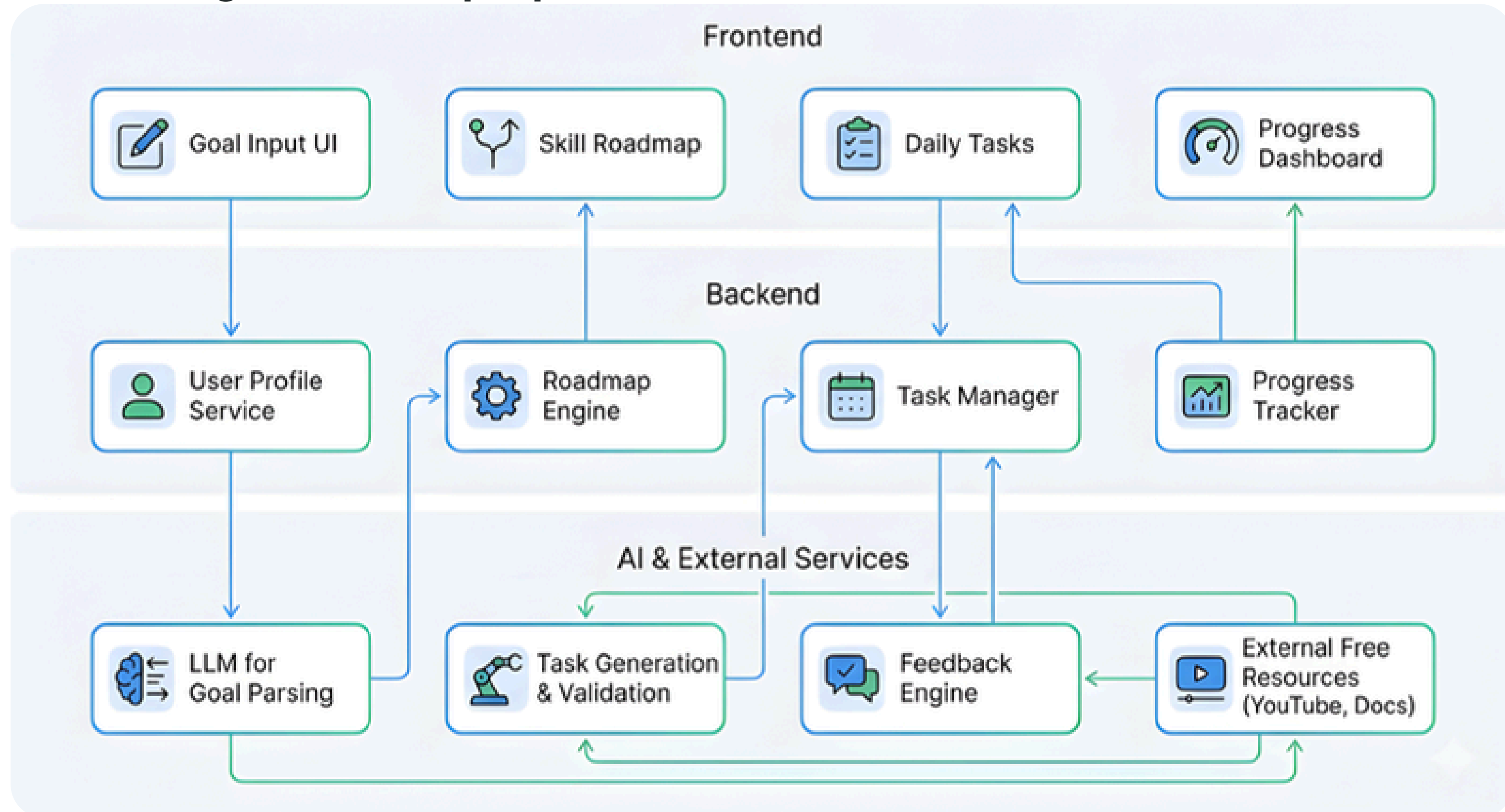




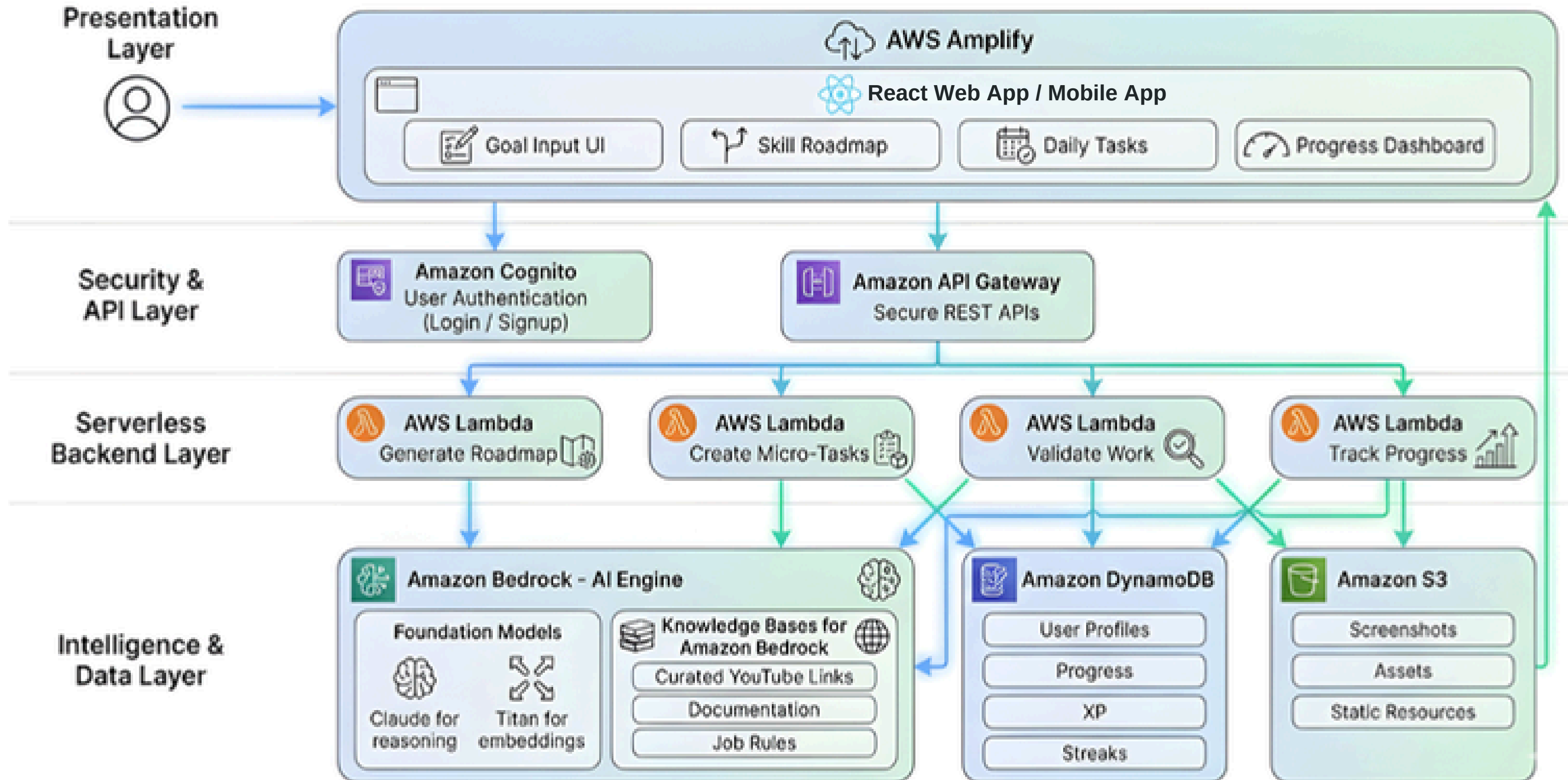
## Wireframes/Mock diagrams of the proposed solution (optional)



## Architecture diagram of the proposed solution:



## Technologies to be used in the solution:





# Estimated Monthly Running Cost (MVP)

**₹50 – ₹200 / month**

For 100 Active Students

Typical pilot: ~₹90 / month (~\$1.10 USD)

## Monthly Cost Breakdown

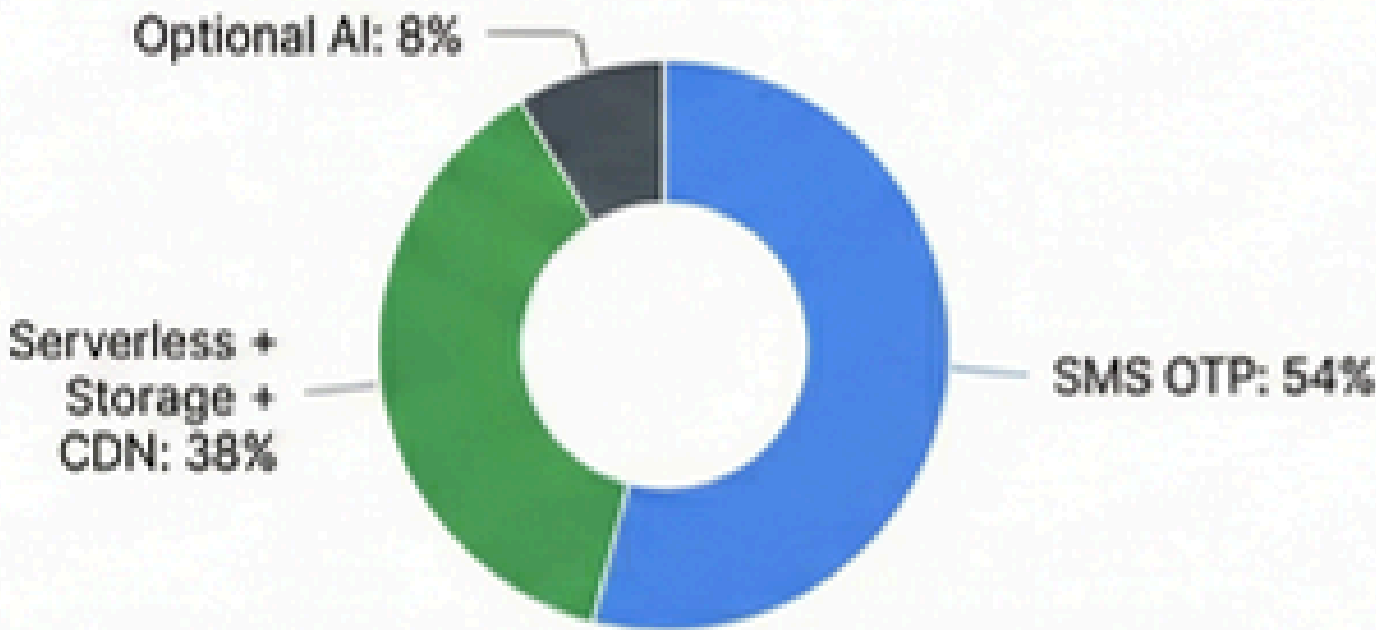
AWS Service	Cost / Month
Lambda + API Gateway	₹10 (~\$0.12)
DynamoDB + S3	₹15 (~\$0.18)
CloudFront (CDN) (Optional)	₹10 (~\$0.12)
SMS OTP (Variable)	₹50 (~\$0.60)
Bedrock AI (Optional)	₹8 (~\$0.09)

Serverless + pay-per-use. OTP cost varies by volume/pricing.

## Key Cost Insights

- ✓ Core infra is near-zero at pilot scale (serverless + free tier effects)
- ✓ Biggest variable cost is SMS OTP authentication
- ✓ AI is optional and used only for milestone validations
- ✓ Demo is safe: app works with cached content even if AI is off

## Where the money goes (Typical)



Traditional Bootcamp: ₹50,000 – ₹2,00,000 / student

ClarityPath AI: ~₹0.90 / student / month (pilot)

Assumes 100 students, 2 OTP logins/user/month, 2 AI milestone validations/user/month, ap-south-1 (Mumbai).

**Add as per the requirements for the hackathon:**

## **Business Viability & Future Roadmap**

### **Business Model**

- **Primary (B2B – Future Phase):** Reverse hiring access to verified job-ready candidates
- **Secondary (Freemium):** Core learning free, optional premium AI mentorship at low cost

### **Impact on Bharat**

- Designed for Tier-2 & Tier-3 students
- Removes dependency on expensive bootcamps
- Future multilingual support (Hindi, Tamil, Telugu)

### **Future Scope**

- Mobile app with offline-first learning
- AI-powered mock interviews using voice and LLMs

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**Thank You**

