1. Idea Title & Proposed Solution

- **Idea Title: AyuLink: A Blockchain-Based Traceability System for Ayurvedic Herbs**
- **Proposed Solution:** We are developing a web platform that uses blockchain technology to create a transparent and immutable digital record of an Ayurvedic herb's journey.
- **How it addresses the problem:** It directly combats the issues of counterfeit herbs, lack of transparency, and quality concerns by providing a verifiable, tamper-proof history for each batch, from the farm to the final product.
- **Innovation and uniqueness:** The core innovation is using the inherent trust and immutability of blockchain to bring unprecedented transparency to the traditional Ayurvedic industry, a sector that currently relies heavily on trust with little verification.

---

2. Technical Approach

- **Technologies to be used:**
  - **Blockchain:** Ethereum Smart Contract (written in Solidity)
  - **Backend:** Node.js with Express.js (to communicate with the blockchain)
  - **Frontend:** React (for an interactive user interface)
  - **DevOps:** Docker (for containerization) and AWS (for deployment)
- **Methodology and process:**

  1. **Farmer Registration:** A farmer registers a new herb batch via a web form, which triggers a transaction on the smart contract.
  2. **Supply Chain Updates:** Each stakeholder (processor, distributor) updates the batch's status, creating a new, timestamped transaction.
  3. **Consumer Verification:** The consumer scans a QR code on the final product, which retrieves and displays the herb's entire journey from our platform.
  - *(For the slide, you should create a simple flowchart showing these three steps).*

---

3. Feasibility and Viability

- **Feasibility:** The project is highly feasible. The technology (blockchain, web apps) is mature, and our team possesses the necessary skills in frontend, backend, and blockchain development. We can build a working prototype within the hackathon timeline.
- **Potential challenges and risks:**
  - **User Adoption:** Convincing farmers and suppliers in a traditional industry to adopt a new digital platform.
  - **Data Integrity:** Ensuring the initial data entered by the farmer is accurate ("garbage in, garbage out").

- **Strategies for overcoming challenges:**
    - **Adoption:** Create a very simple, mobile-friendly interface with clear incentives (e.g., premium pricing for verified products).
    - **Integrity:** Integrate geo-tagging and photo uploads at the point of harvest to add a layer of verification.

---

4. Impact and Benefits

- **Potential impact on the target audience:**
    - **Consumers:** Increased trust and confidence in the safety and authenticity of the Ayurvedic products they purchase.
    - **Farmers:** Ability to command better prices for high-quality, verified produce.
    - **Companies:** Enhanced brand reputation and reduced risk of counterfeit products damaging their name.
- **Benefits of the solution:**
    - **Social:** Promotes public health by ensuring access to genuine traditional medicine.
    - **Economic:** Creates a premium market for authentic Ayurvedic herbs, boosting the rural economy and protecting honest brands.
    - **Environmental:** Geo-tagging and transparent sourcing can encourage sustainable and responsible harvesting practices.