Ideation Phase
Empathize & Discover

Date	27 may 2025
Team Id	LTVIP2025TMID41819
Project Name	Patterns Sense: Classifying fabric patterns using deep learning
Maximum Marks	4 Marks

Patterns Sense: Classifying Fabric Patterns Using Deep Learning

□ Empathy Map Canvas

(Deep User Insight for Pattern-Based Fabric Classification)

📓 Introduction:

Creating a solution for fabric pattern classification using deep learning demands more than just technical expertise—it requires **deep empathy** with the people using the system. The **Empathy Map Canvas** is a structured method to visualize and organize what we know about our users. It puts us in their shoes and helps ensure the tools we build are truly meaningful and practical.

👩‍🎨 User Persona:

Name: Aria Patel
Role: Textile Designer at a mid-sized fashion label
Background: Experienced in hand-drawing and digital print design. Frequently sources and categorizes fabric samples for collections.
Tech Comfort: Moderate; uses design software, cloud storage, Pinterest-like inspiration boards.

🔍 Context:

Aria needs to explore, filter, and catalog thousands of fabric patterns quickly—often under pressure from tight seasonal collection deadlines. Manual tagging and organizing fabric swatches is time-consuming, and many digital tools don't support **pattern-based search** or recognition. AI could dramatically streamline her work—if it truly "understands" pattern types.

□ Empathy Map Quadrants

SAYS

- “I need to quickly identify similar fabric styles.”
- “Too many fabric images are unorganized.”
- “Searching by keyword doesn’t work for visual inspiration.”

THINKS

- “I wish this tool could recognize patterns the way I do visually.”
- “AI could help me save hours, but only if it really works.”
- “If it could sort floral from abstract automatically, I’d be set.”

HEARS

- “Other designers are using AI moodboards and smart tools.”
- “Digital pattern libraries are growing, but hard to search.”
- “You should use machine learning—it’s trending in fashion tech.”

DOES

- Manually tags files by pattern type
- Uses folders to organize floral, geometric, etc.
- Uploads swatches to digital catalogs
- Frequently revisits old designs for inspiration
- Experiments with online AI tools (some disappointing)

Goals (Gains)

- □ Automate pattern-type detection (e.g., floral, geometric, abstract, striped, paisley)
- Search/filter fabrics visually in online libraries
- Improve design decision-making and reduce repetition
- Save time by avoiding manual categorization
- Stay competitive with faster, smarter tools

⚠ Challenges (Pains)

- ✕ No consistent dataset of labeled pattern types
- ⚙ AI tools lack fine-grained pattern understanding
- ▯ Mixed-pattern fabrics confuse most systems
- 💬 Terminology mismatch—what she calls “paisley” might be “ornate swirl” in AI logic
- 😕 Disappointment with "black-box" tools that lack transparency

---

🔁 Additional Insights

- **Emotional Impact:** Aria feels overwhelmed, inefficient, and creatively blocked when she can’t find the right patterns fast. She’s eager for a tool that empowers rather than frustrates her.
- **Trust Barrier:** She’ll only adopt the AI if it gives results that reflect a **designer’s intuition**, not just raw statistics.
- **Opportunity:** Pattern classification that mimics human design logic can be a major breakthrough—not just for sorting, but for **ideation**, **inspiration**, and **fabric search UX**.