### **Slide 1: Title Slide ( Gangadhar)**

“Hello everyone We are Team AAI-531 Group 7—we are 3 in the group, Myself Gangadhar Singh Shiva, our team members Ananya Chandraker, and Harish Kapettu Acharya—and today we’re excited to present our project on **Ethical AI Recommender Systems**.

Our goal was to explore how advanced tools like SHAP, LIME, RAG, and Groq LLM can be combined with fairness and privacy techniques to create recommendation systems that are not only powerful, but also ethical, transparent, and inclusive.”

### **Slide 2: Project Objectives and AI Ethics Principles (Gangadhar)**

“To begin, we focused on designing a recommender system that is fair, transparent, and privacy-preserving.

We set out to ensure the system’s recommendations are explainable and unbiased, using tools like SHAP and LIME to analyze and interpret AI decisions. We also incorporated differential privacy to protect user data.

At the core of our design are key AI ethics principles: fairness, accountability, transparency, and privacy. We believe that ethical responsibility should be built into the architecture of any intelligent system.”

### **Slide 3: Unintended Stakeholders and Impacts (Gangadhar)**

“While recommender systems serve a wide user base, we also examined their unintended consequences.

Stakeholders such as minority communities, international users, and even third-party developers can be affected in unexpected ways. For example, biased training data may lead to unfair or discriminatory recommendations.

We also identified privacy risks—especially when data protection is weak—as well as market inequities when algorithms lack transparency.

The takeaway here is that ethical harms can extend far beyond the immediate user. So, ethical AI must account for this broader impact.”

### **Slide 4: Perspective on Ethical Principles – Gangadhar Singh Shiva**

“From my perspective, transparency is one of the most important values in ethical AI. I focused on how SHAP and LIME can help us clearly explain why a recommendation was made.

These tools help users trust the system, especially when outcomes are interpretable and not just black-box predictions.

Feature Embedding graph plot shows the words, sentences used in recommendation by the RAG LLM model.

SHAP output shows the important features impacting the recommendation and LiME output shows the one of the data points and features contribution to it.

While my teammates and I agree all ethical principles like fairness, privacy and transparency ar e important. I believe ethical systems must prioritize fairness , privacy and openness, grounded in our values of integrity and equality.”

### **Slide 5: Perspective on Ethical Principles – Ananya Chandraker (Ananya)**

“For me, privacy stood out as the most critical ethical concern. I emphasized the use of differential privacy and thorough data sanitization to protect users’ personal information.

While we all agree on the need for transparency, I believe rigorous privacy measures are just as important. Data should not be vulnerable to misuse, and people must feel safe engaging with intelligent systems.

This aligns with my core values of autonomy and respect. Protecting privacy isn’t just a technical challenge—it’s an ethical imperative.”

### **Slide 6: Perspective on Ethical Principles – Harish Kapettu Acharya (Harish)**

“My focus was on fairness and ethical implementation. I emphasized techniques like demographic parity, which help prevent biased outcomes in recommender systems.

In alignment with my teammates, I value transparency and privacy, but I place additional emphasis on ensuring systems are equitable for all.

From my point of view, ethical AI must actively promote fair treatment and ensure that no group is disadvantaged. This comes from my belief in accountability and equal opportunity.”

### **Slide 7: Conclusion (Harish)**

“To wrap up, our team concluded that ethical recommender systems must be rooted in fairness, transparency, and privacy.

SHAP and LIME help demystify AI decisions. Fairness techniques address systemic biases. And differential privacy protects user data.

But it doesn’t stop there. We need ongoing ethical review, transparent governance, and policies that empower users and protect their rights.

Ultimately, we believe AI should not only be intelligent—it should be **responsible**. **Thank you**!”