**Tasks (RAG HR Chatbot)**

1. **Set up project environment & repo**
   * Create GitHub repo, environment, and dependency list.
2. **Document ingestion**
   * Extract text from provided HR policy PDF.
   * Clean and prepare the text for processing.
3. **Chunking & embeddings**
   * Generate embeddings and store them.
4. **Task**
   * Build a FAISS index with the embeddings.
   * Source ranking & re-ranking: Implement a lightweight re-ranker (BM25, cosine scoring) on top of FAISS results.
   * Caching layer: Add a query cache so repeated questions don’t hit the LLM every time.
5. **RAG pipeline**
   * Assemble retriever + prompt template.
   * Connect to free LLM API (Groq).
6. **Backend API**
   * Expose /query endpoint returning answers with sources.
7. **Minimal frontend**
   * Build simple chat UI to interact with backend(streamlit).
8. **Containerization**
   * Write Dockerfile, run app in container.
   * Push image to Docker Hub. share the docker repo and git hub of code.
9. **Documentation**
   * README, usage instructions, security notes.