

SYRACUSE UNIVERSITY

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MANAGEMENT**

GROUP B

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**CHAT WITH PDF – GENERATIVE AI
APPLICATION USING AWS BEDROCK,
LANGCHAIN, PYTHON, FAISS, DOCKER &
S3**

Link to Video Report and Project Files

[Link to the Presentation](#)

(Please access the OneDrive link using your Syracuse University email (Syr Email).

This one drive folder contains:

1. Presentation Video (Video Report)
2. Full Demo Video of the Project
3. All Project Code Files in Zip

Project Overview

Our project is a cloud-based “Chat with PDF” application built using Amazon Bedrock, Titan Embeddings, Claude 3 Sonnet, LangChain, Docker, and Amazon S3. The goal is to allow users to ask natural-language questions about a PDF and receive accurate, grounded answers based strictly on the document’s content.

We built two separate interfaces:

- *Admin Interface* that uploads the PDF, extracts the text, generates embeddings, and creates a FAISS vector index stored in Amazon S3, and
- *User Interface* that loads this index, runs similarity search using FAISS, and sends the retrieved text to Claude for answer generation.

The Project follows the Retrieval-Augmented Generation (RAG) approach, enabling fast, reliable, and secure document querying without exposing or modifying the original PDF.