**# Ask-Presenta: High-Level Overview & Module Breakdown**

**## 1. High-Level Overview**

Ask-Presenta is an AI-powered application that transforms PDF documents into professional presentations using Azure OpenAI services (GPT and DALL-E). The workflow is:

1. **\*\*Document Processing\*\***: Extract key content from uploaded PDFs

2. **\*\*Content Analysis\*\***: Identify key sections and themes using AI

3. **\*\*Image Generation\*\***: Create relevant images for each slide using DALL-E

4. **\*\*Slide Creation\*\***: Generate professional HTML slides with the content and images

5. **\*\*PowerPoint Export\*\***: Convert to PowerPoint format (with optional organization template support)

The application provides a streamlined interface for previewing and downloading presentations in both HTML and PowerPoint formats.

**## 2. Module Contributions by Feature**

**### Document Processing & Content Extraction**

- **\*\*helpers.py\*\***: Contains `extract\_text\_from\_pdf()` function

- **\*\*processor.py\*\***: Main orchestration for the PDF processing pipeline

**### AI Content Analysis**

- **\*\*agents.py\*\***: Contains `extract\_key\_sections()` function that uses Azure OpenAI to analyze text

- **\*\*openai\_client.py\*\***: Handles OpenAI API initialization and configuration

**### Image Generation**

- **\*\*agents.py\*\***: Contains `create\_visual\_prompt()` function that generates DALL-E prompts

- **\*\*helpers.py\*\***: Contains `generate\_image\_from\_prompt()` for DALL-E API calls

- **\*\*logo\_test.py\*\***: Utility for logo detection and integration

**### Slide Generation**

- **\*\*slide\_generator.py\*\***: Creates HTML slides with different layouts

- **\*\*models.py\*\***: Defines data structures for slides and content

**### PowerPoint Conversion**

- **\*\*pptx\_converter.py\*\***: Standard PowerPoint conversion

- **\*\*template\_pptx\_converter.py\*\***: Template-based PowerPoint conversion using organization templates

**### User Interface**

- **\*\*app.py\*\***: Main Streamlit application with UI components and interaction logic

**### Infrastructure & Utilities**

- **\*\*openai\_client.py\*\***: Client setup for Azure OpenAI services

- **\*\*.env\*\***: Configuration for API keys and endpoints

Each step in the workflow is handled by specific modules that work together to transform the PDF document into a presentation, with both the processing pipeline and the generated presentations highly customizable through the interface.