



FLYING HIGH WITH GENERATIVE AI

**Streamlining Pilot Assessments with
Botminds' Intelligent Document Management System**

A Journey of Efficiency and Precision

 **botminds.ai**

No-Code Platform To Rapidly Build Agentic AI Solutions

ABOUT CLIENT

- ▶ A leading national carrier, offering both domestic and international flights. With a robust fleet of aircraft, the client has large number of pilots and their corresponding documentation. The airline was grappling with issues around pilot certification, training, and record management.

BUSINESS SCENARIO

- ▶ In the aviation industry, maintaining up-to-date pilot certifications is paramount for both safety and regulatory compliance.
- ▶ The certifications and training activities are designed to validate a pilot's competence, physical fitness, and knowledge of operating procedures and aviation rules. Few of them namely IR/PPC, FSTD, RHS Training, AVSEC, Line Check/Route Check, medical assessments, FRTO, RTR, ATPL/CPL and so on
- ▶ Mismanagement or overlooking of these certifications and trainings could result in non-compliance with aviation regulations, posing severe risks to flight safety.
- ▶ Furthermore, it could lead to significant legal and reputational consequences for the airline. Hence, a systematic and efficient management of these end-to end process is crucial in maintaining operational integrity, safety standards, and regulatory compliance.
- ▶ Moreover, pilots struggled to review their records or suggest corrections due to the inefficiencies in the system's search functionality. Adding complexity, the documents were submitted via a different portal, contributing to a growing, unwieldy corpus of data. The team needed to accurately identify, segregate, and assign these documents based on the pilot's email and document type.

BUSINESS CHALLENGES

01

Volume & Multifarious Data

Managing a wide array of pilot documents that contains sensitive and confidential information, presented a complex, unstructured PDF files is a daunting and time-consuming task.

02

Data Segregation & Enrichment

The process of segregating the diverse range of pilot documents and enriching the data for further insights proved challenging due to the system's manual and error-prone nature. This significantly hindered the efficient extraction and utilization of meaningful information from the compiled data.

03

Searchability & Real-Time Visibility

The existing system fell short in offering current, easily searchable data, and real-time insights. This deficiency hindered timely alerts to both the airline and pilots regarding impending certification renewals.

04

Challenges in Compliance

The airline encountered difficulties in maintaining stringent compliance with aviation regulations due to potential inconsistencies or oversights in managing the diverse range of pilot documents. This made it challenging to ensure that all pilots' certifications were up-to-date, risking regulatory breaches and safety concerns.



SOLUTION CONSIDERATIONS

In the deployment of Botminds AI, the below considerations were pivotal.

- ⦿ **Automated Document Segregation:**
The proposed solution must be capable of identifying, classifying, and segregating all pages in the scanned document set into distinct groups based on their type. The automation should replace the current manual process, ensuring accuracy and efficiency.
- ⦿ **Data Extraction and Preparation:**
The solution should also possess the capability to extract key information from each document as per the provided list. This extracted data should be prepared and organized in a way that is conducive to subsequent processes, such as searching and analysis.
- ⦿ **Advanced Intelligent Search:**
The solution must enable a natural language search across all content. It should be capable of understanding the context of the search query, and deliver accurate results along with the relevant document. This feature should significantly improve the system's search functionality, making it more user-friendly and efficient.

BOTMINDS SOLUTION

- ✓ **We implemented a centralized system for centralized document collection, funneling pilot documents into a shared email inbox, and eliminated multiple collection points, reducing data dispersion and mismanagement.**
The streamlined data management and improved efficiency, laying the foundation for document segregation and extraction.
- ✓ **Document Set Creation: Intelligent Document Segregation, Leveraging advanced AI capabilities, we classified the collected files into their relevant sections. The solution is trained to classify the documents into 11 distinct types, vastly improving the process's precision and speed.**
- ✓ **Accurate Data Extraction: Extracted specific information from the classified files. The system is programmed to pull nearly 40 different fields from the 11 distinct types of documents, achieving an impressive accuracy rate of over 97%.**
- ✓ **Interactive Chat Interface using chatMinds: The extracted data was then made available in an interactive chat format. This novel approach not only facilitated easier access to the information but also enhanced the user experience by allowing natural language queries and providing responsive, accurate results.**



SOLUTION HIGHLIGHTS

- Botminds offers a unique solution with customizable fields, consolidated output, and custom query configurations for personalized views and control. It supports consolidated output and enables users to download all outputs in a single sheet, ensuring accessibility and meeting specific business needs.
- The solution enhances user accessibility with intuitive data grouping, segmented data viewing, deep-linking, and single-view data viewing across documents, enhancing usability and guiding users to the extracted value's location.
- Botminds' AI-based solution features role-based access control, secure Active Directory Mapping, read-only access, and audit trails for data integrity and transparency. Advanced features include point-click correction, configurable attributes, AI predictions, and a configurable workflow, showcasing their commitment to providing a comprehensive, high-quality solution.

BUSINESS IMPACT



Increased Compliance

Automated document collection simplifies aviation regulations compliance, reducing risk of breaches and inconsistencies.



Improved Certification Rate

Improved certification rate by providing timely alerts, comprehensive reports, and ensuring pilot qualifications are updated, valid, and regulatory compliance.



Consistent & Elevated Experience

Enabling a synchronous, frictionless experience across regions, branches, and employee seniority levels



Effective Scalability

AI-driven approach allowing scalability, accommodating the growing volume and variety of documents without compromising accuracy or efficiency.

VALUE DELIVERED

5X

Improved Compliance

10x

Faster Searchability

97%

Accuracy

5x

Improved TAT

100%

User-first experience



AI-First
Approach



No-Code
Platform



Vertically
Integrated



End-to-End
Automation

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For more information, visit us www.botminds.ai or email us at hello@botminds.ai