Women Elevate Program: Lab 6 – Explore Document Analysis with Azure AI Document Intelligence Studio

Note:

- This lab uses Azure AI Document Intelligence Studio at https://documentintelligence.ai.azure.com/.
- The Azure AI Document Intelligence resource is assumed to be pre-created for this lab.
- Ensure JavaScript is enabled in your browser to access Document Intelligence Studio.
- For optional steps involving local documents, use non-confidential files only.
- The lab includes analysis of a specific invoice from https://raw.githubusercontent.com/MicrosoftLearning/mslearn-ai-fundamentals/refs/heads/main/data/contoso-invoice-2.pdf.

Lab Overview: Azure AI Document Intelligence is a cloud-based service that uses machine learning and optical character recognition (OCR) to extract text, key-value pairs, tables, and structures from documents such as invoices, identity documents, and credit cards. In this lab, you will explore Document Intelligence Studio's capabilities, including OCR for text extraction, prebuilt models for invoices, identity documents, and credit cards, and optional analysis of non-confidential local documents. You will also analyze a specific Contoso invoice to extract structured data.

This exercise takes approximately 25 minutes.

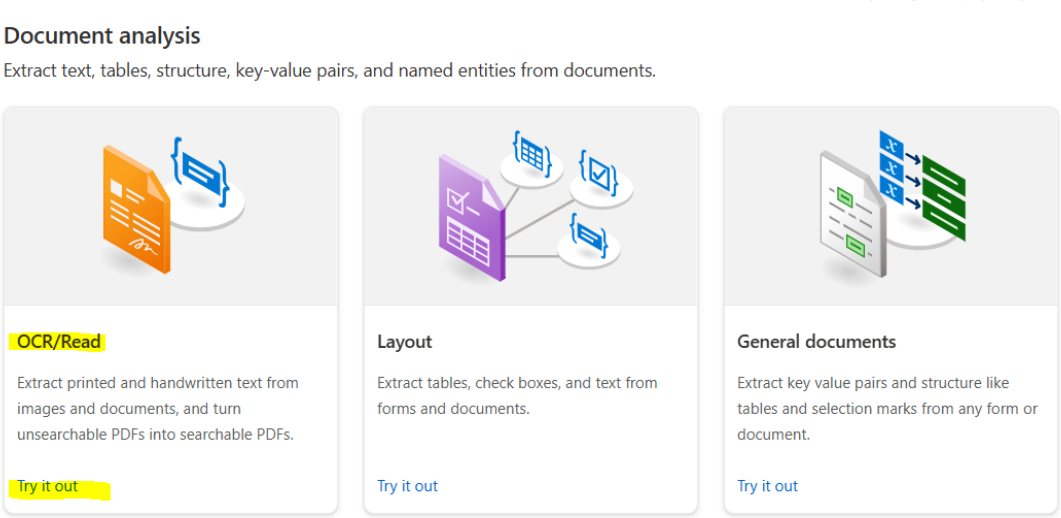
Lab Steps

Step 1: Log in to Document Intelligence Studio

1. Open a web browser and navigate to Document Intelligence Studio at https://documentintelligence.ai.azure.com/
2. Enter your provided Azure username and password in the login fields.
3. Click Sign In to access Document Intelligence Studio.
4. Verification: Confirm that Document Intelligence Studio loads successfully, displaying the main interface.

Step 2: Analyze a Healthcare Document Using OCR/Read

1. In Document Intelligence Studio, under the **Document Analysis** section, Click on OCR/Read.



2. Verify that the pre-created Azure AI Document Intelligence resource is selected in the resource dropdown. If not, choose the available resource.
3. In the sample documents list, select read-healthcare.png.
4. Click Run analysis to extract text from the image.
5. Review the output in the Results section. Observe the extracted text, including layout details such as paragraphs, lines, and words, along with confidence scores indicating the model's certainty.
6. In the JSON tab, examine the structured JSON output, which includes the extracted text and positional information.
7. Verification: Confirm that the extracted text accurately reflects the content of read-healthcare.png.

Step 3: Analyze Invoices Using the Prebuilt Invoice Model

1. In Document Intelligence Studio, under the Prebuilt models section, select Invoice.
2. Verify that the pre-created Azure AI Document Intelligence resource is selected in **Service resource**.
3. In the sample documents list, select Invoice-english.pdf.
4. Click Run analysis to extract data from the invoice.

5. Review the output in the Results section. Observe the extracted fields (e.g., invoice number, customer name, total amount, line items) and their confidence scores.
6. In the JSON tab, review the structured JSON output, which shows the extracted data for integration with applications.
7. Download the Contoso invoice file contoso-invoice-2.pdf from https://raw.githubusercontent.com/MicrosoftLearning/mslearn-ai-fundamentals/refs/heads/main/data/contoso-invoice-2.pdf
8. Click Browse for a file, upload contoso-invoice-2.pdf, and select Run analysis.
9. Review the Results section for contoso-invoice-2.pdf, noting the extracted fields (e.g., customer details, invoice total, line items) and their confidence scores. Compare these with the results from Invoice-english.pdf.
10. In the JSON tab, examine the JSON output for contoso-invoice-2.pdf to verify the structured data.
11. Optional: Upload a non-confidential invoice or document in another language (e.g., French, Arabic) from your local machine. Click Browse for a file, select the document, and run analysis. Observe how the model handles non-English text and compare the results.
12. Verification: Confirm that the extracted fields from Invoice-english.pdf and contoso-invoice-2.pdf align with their respective contents. For the optional step, verify that the non-English document is processed correctly.

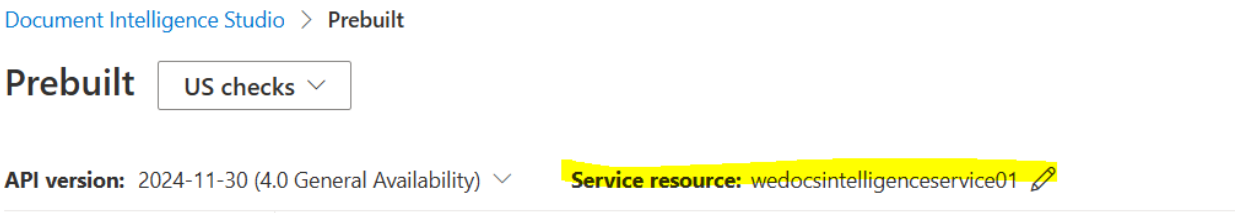
Step 4: Analyze an Identity Document Using the Prebuilt ID Model

1. In Document Intelligence Studio, under the Prebuilt models section, select Identity.
2. Verify that the pre-created Azure AI Document Intelligence resource is selected in the **Service resource**.
3. In the sample documents list, select id-license.png.
4. Click Run analysis to extract data from the identity document.
5. Review the output in the Results section. Observe the extracted fields (e.g., name, date of birth, license number) and their confidence scores.
6. In the JSON tab, examine the structured JSON output, which includes the extracted data.

7. Optional: Upload a non-confidential identity document image (e.g., a sample ID from a public dataset) from your local machine. Click Browse for a file, select the image, and run analysis. Review the extracted fields and compare with id-license.png.
8. Verification: Confirm that the extracted fields from id-license.png match the document's content. For the optional step, verify that the local document is processed accurately.

Step 5: Analyze a Credit Card Using the Prebuilt Credit Card Model

1. In Document Intelligence Studio, under the Prebuilt models section, select **Credit Card.**
2. Verify that the pre-created Azure AI Document Intelligence resource is selected in the **Service resource**.



3. In the sample documents list, select credit-card-horizontal.png.
4. Click Run analysis to extract data from the credit card image.
5. Review the output in the Results section. Observe the extracted fields (e.g., card number, cardholder name, expiration date) and their confidence scores.
6. In the JSON tab, review the structured JSON output, which includes the extracted data.
7. **Verification: Confirm that the extracted fields from credit-card-horizontal.png align with the image's content.**

Explore More:

- Try analyzing other sample documents available in Document Intelligence Studio (e.g., receipts, business cards).
- Experiment with the Layout model to extract tables and structures from complex documents.
- Explore the API tab for each model to view sample code and endpoints for integrating document analysis into applications.