

Document AI (GCP) processing documents

Description :

The program (python source code) call the ocr and form parser Document AI (GCP).

The Document AI client API has interface in: C#, Go, Node, Python, Java, Php, Ruby

Document AI has two main processor:

- **OCR processor:**

You can use Enterprise Document OCR as part of Document AI to detect and extract text and layout information from various documents. With configurable features, you can tailor the system to meet specific document-processing requirements.

Bibliografy:

```
* https://cloud.google.com/document-ai/docs/enterprise-document-ocr
* https://cloud.google.com/document-ai/docs/process-documents-ocr
```

- **Form Parser:**

Form Parser v2.0 is a document processing model that can extract items from any document type, such as fields and tables. Combine it with Document AI's optical character recognition (OCR) to augment and automate extraction.

Example of Form Parser output with program source code:

```
*****File Name form-cms1500.pdf*****
*****
Field Name ... Field Value Confidence
0 MEDICAID (Medicaid#) ... 0.999934
1 FECA BLKLUNG (10#) ... 0.999752
2 TRICARE (ID#/DoD#) ... 0.999750
3 CHAMPVA (Member ID# ... 0.999737
4 GROUP HEALTH PLAN (10#) ... 0.999035
5 YES ... 0.998431
6 NO ... 0.998064
7 YES ... 0.997959
8 YES ... 0.997585
9 NO ... 0.995612
10 NO ... 0.995199
11 OTHER (ID#) ... 0.994954
12 NO ... 0.994008
13 Other ... 0.991844
14 Spouse ... 0.991452
15 YES ... 0.987589
16 Child ... 0.978465
17 MEDICARE (Medicare#) ... 0.970292
18 STATE ... 0.962994
19 TELEPHONE (Include Area Code) ... 0.960054
20 2. PATIENT'S NAME (Last Name, First Name, Midd... ... 0.906608
o 21 5. PATIENT'S ADDRESS (No., Street) ... 0.872310
```

Bibliografy:

- * <https://cloud.google.com/document-ai/docs/process-documents-form-parser>
- * <https://cloud.google.com/document-ai/docs/form-parser>

- You can create or fine-tune other ocr document processor in Document AI if you have some examples for train and testing. There are a customize options in Document AI GCP platform.

Check tutorials:

- <https://cloud.google.com/document-ai/docs/process-documents-client-libraries>
- <https://cloud.google.com/document-ai/docs/process-documents-form-parser>
- <https://cloud.google.com/document-ai/docs/process-documents-ocr>

Example Form Parser (Document AI) processor:

The screenshot displays the Google Document AI Form Parser interface. On the left, a sidebar titled 'Análisis de Form Parser' contains a 'Filtro' section with a search bar and a list of filters. The main area shows a 'HEALTH INSURANCE CLAIM FORM' with various fields. A callout box highlights the 'TELEPHONE (Include Area Code)' field, showing the value '(305) 7932077'. The right-hand pane shows a list of extracted data points, including '1', '2', '3', and '4'.

PAR CLAVE-VALOR	TABLA	ENTIDAD
1a. INSURED'S I.D. NUMBER (For Program in 101481201900)		
OTHER (ID#)	<input type="checkbox"/>	
FECA BLKLUNG (ID#)	<input type="checkbox"/>	
CHAMPVA (Member ID#)	<input type="checkbox"/>	
GROUP HEALTH PLAN (ID#)	<input type="checkbox"/>	
MEDICARE (Medicare)	<input type="checkbox"/>	
TRICARE (ID#/DoD#)	<input type="checkbox"/>	
MEDICAID (Medicaid)	<input type="checkbox"/>	
4. INSURED'S NAME (Last Name, First Name, Middle Initial)	JOHNSON, KAYLA	
3. PATIENT'S BIRTH DATE MM DD YY	02 26 1943	
F	<input checked="" type="checkbox"/>	
7. INSURED'S ADDRESS (No., Street)	10600 SW 65TH AVE	

Document AI (GCP) Billing

- Free on charge 1 million pages
- For each 1 million pages 1.5 dollars

Learning resources:

- * <https://www.youtube.com/watch?v=6fy1P4JMzjo>
- * https://www.youtube.com/watch?v=F_jyoe1lQhg
- * https://medium.com/@rohit.gupta_47632/key-value-entity-extraction-from-forms-using-gcp-apis-9c59eb731dce
- * <https://codelabs.developers.google.com/codelabs/docai-form-parser-v1-python#4>