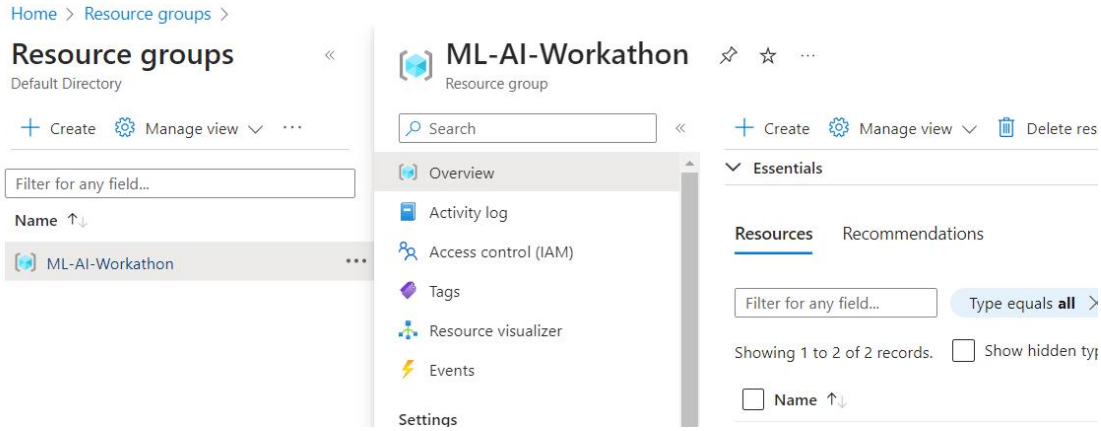
Task report

Task:

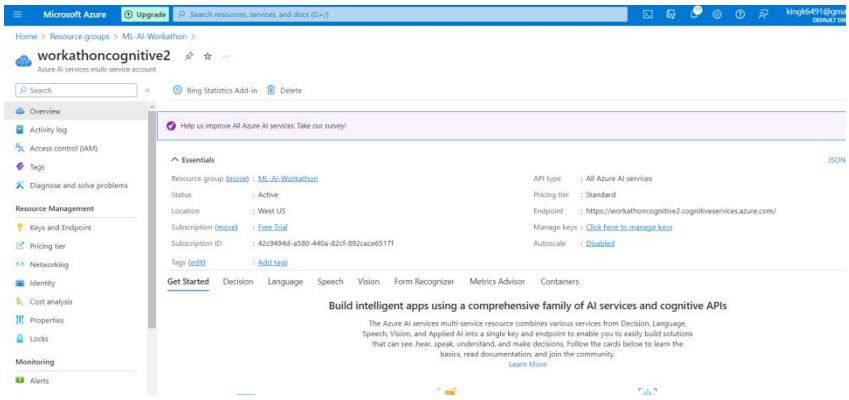
1. Download and install Postman, a free tool that allows you to make API calls.
   - Go to the Postman website and download the desktop application or use the web version.
   - Install Postman on your computer.
2. Create an Azure account or use your current Azure subscription.
   - Go to the Azure website and sign up for a free trial account or use your current Azure subscription.
   - Follow the instructions to create an Azure account.
3. Download the data for training and testing from the Data Folder in the Form Recognizer folder.
   - Go to the Form Recognizer folder and download the data for training and testing.
   - Save the data to a local folder on your computer.
4. Use the GUI Portal to train the model
   - Go to the Azure Portal and sign in to your account.
   - Create a new Form Recognizer resource.
   - Use the GUI Portal to train the model by uploading the training data and following the instructions.
5. Build a custom model for each form type and assimilate them together in a Composed model to make all these custom models work together and not in silos.
   - Use the GUI Portal to build a custom model for each form type.
   - Assimilate the custom models together in a Composed model to make all these custom models work together and not in silos.
6. Deploy the models on the cloud or on the edge.
   - Use the Azure Portal to deploy the models on the cloud or on the edge.
7. Pass a new unprocessed form belonging to any of the custom model categories comprising the composed model to generate the outcome.
8. Test the models and refine them as needed.
   - Test the models and refine them as needed to improve their accuracy and performance.
9. Demo, Develop, and Deploy your own custom use cases.
   - Use the models to develop and deploy your own custom

Procedure

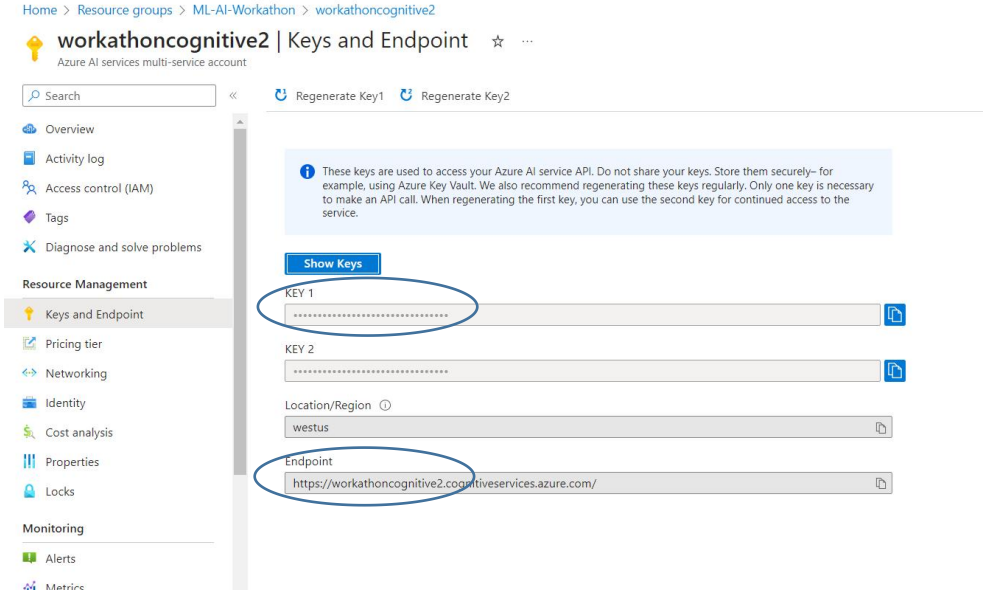
1) Go to azure and create a resource group: ML-AI-Workathon



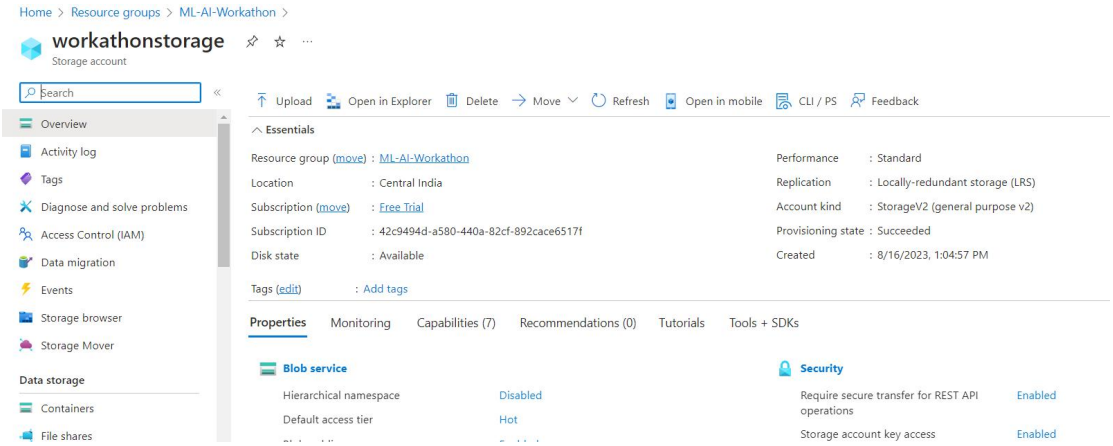
2) In this resource group create cognitive services: workathoncognitive2



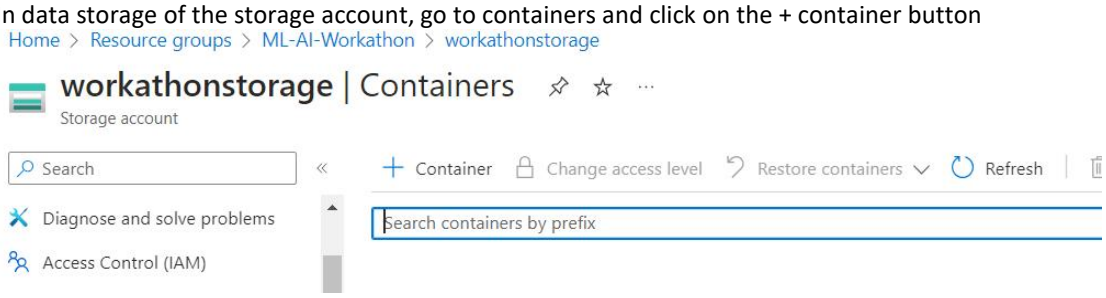
3) Go to keys and endpoint and copy key1 and endpoint



4) Now, create storage account

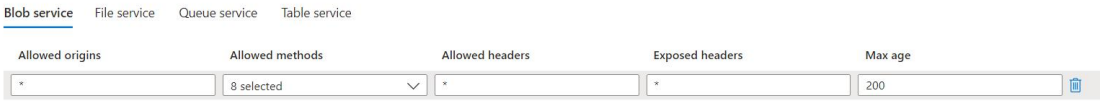


In data storage of the storage account, go to containers and click on the + container button

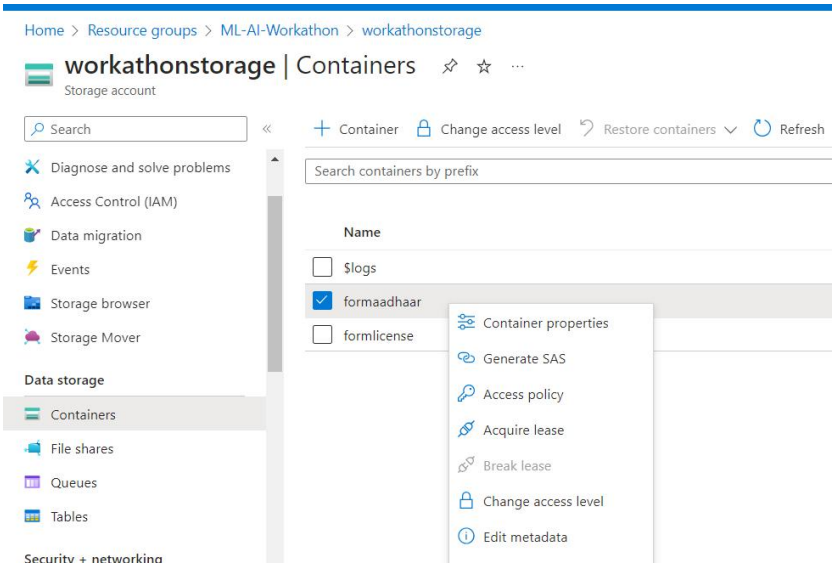


In the name, write formaadhaar and then click on create. Now select this blob storage, click on upload and then select atleast 5 samples of adhaar card from the internet

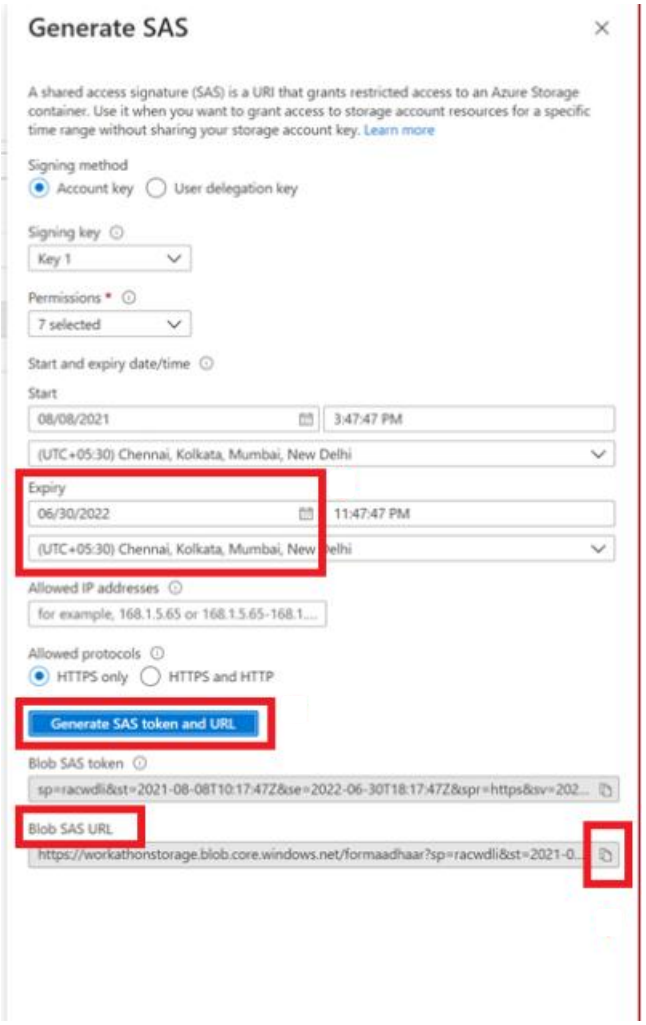
In this storage account, go to resource sharing (CORS) and enter the following details:



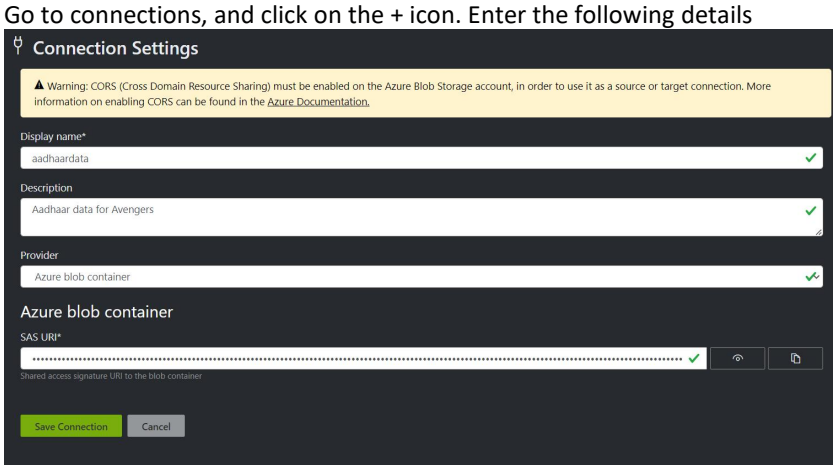
Now, go to the container in data storage, right click on formaadhaar, click generate sas



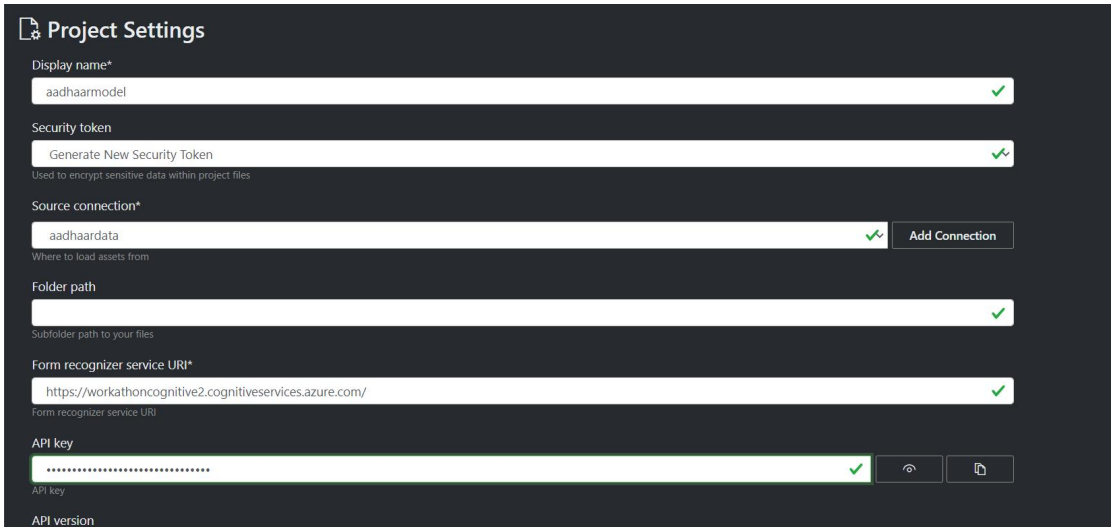
Enter the following details. Note: keep the expiry date for a later date. Generate sas and then copy it.



5) After completing the above steps, go to https://fott-2-1.azurewebsites.net/
Go to connections, and click on the + icon. Enter the following details

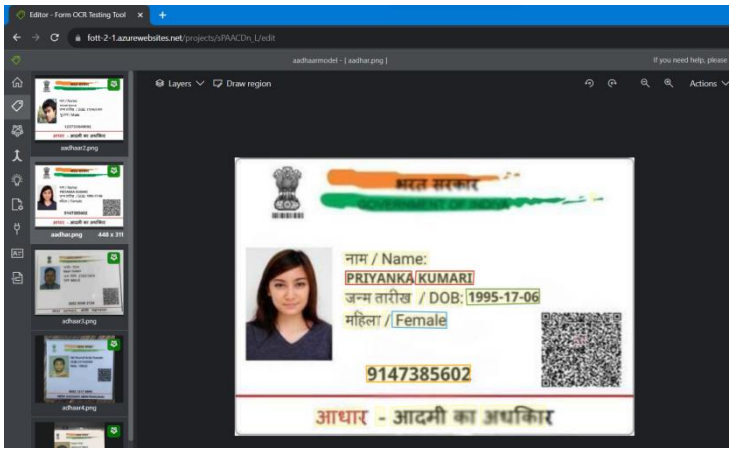


Paste the SAS url of the blob storage you copied earlier.
6) Go to home tab, click on + custom model and enter the following details. In the form recognizer service url:paste the endpoint you copied earlier. In the API key, paste the key copied earlier

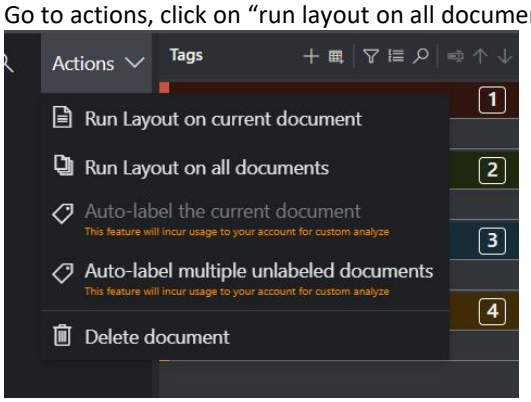


Click on save project

7) Go to tags editor tab, it will look like this:

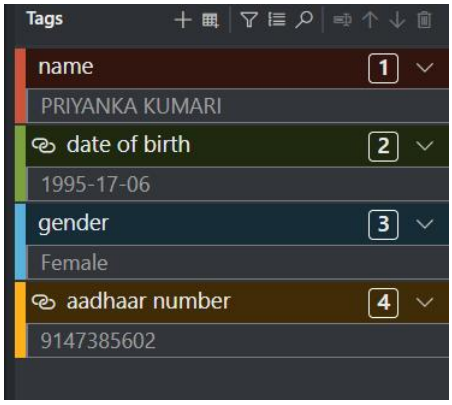


Go to actions, click on “run layout on all documents”

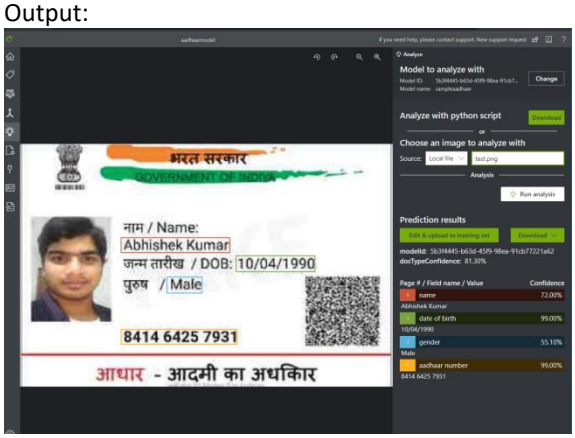


Now click on the plus icon and create the following tags:
Name, date of birth, gender, aadhaar number.

Now click on the name of the person, ex PRIYANKA KUMARI, and then click on name tag you just created. You will notice the name value is displayed under name tag. Continue the same process for other tags

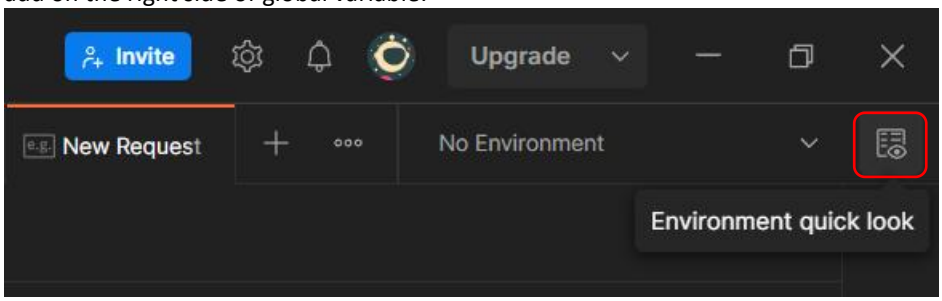


8) Go to train tab. Click on train a new model, enter the name sample aadhaar. Your model is trained
9) For testing your model, go to analyse tab, keep the source local file and browse the file location. I have given it a file 'test.png'.
Output:

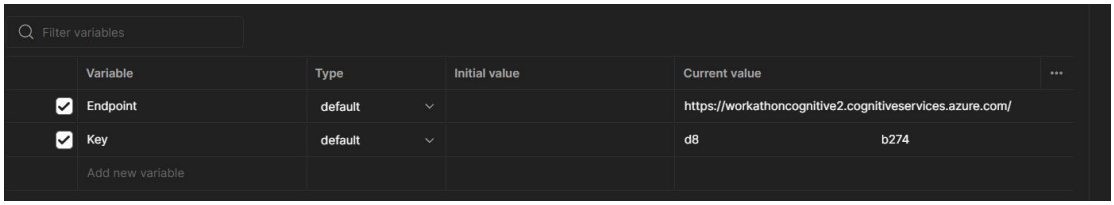


Model was able to recognise the parameters

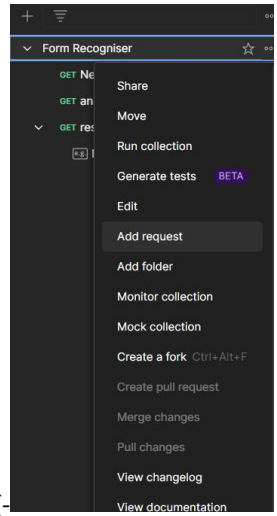
10) Now go to postman (installed earlier). click on the environment quick look button, then click on add on the right side of global variable:



Give the values of endpoint and key you copied earlier and save it:



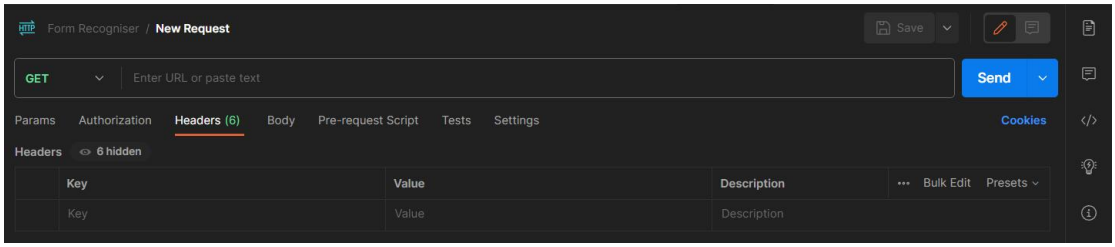
11) click on collections then click on New. Give the name: 'form recognizer'
Right click on form recognizer, then click on add request



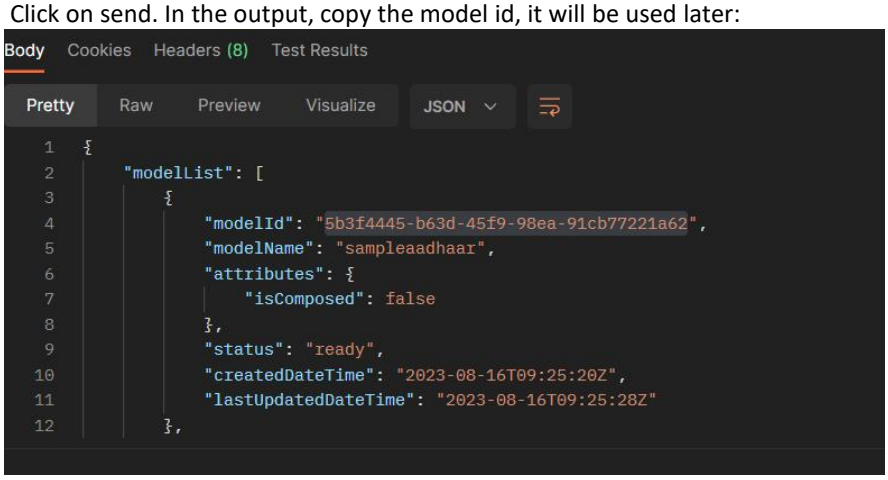
12) You can call this API request to get the details of all the custom & composed models you have created.

URL : {{endpoint}}/formrecognizer/v2.1/custom/models

Headers :
Ocp-Apim-Subscription-Key : {{key}}

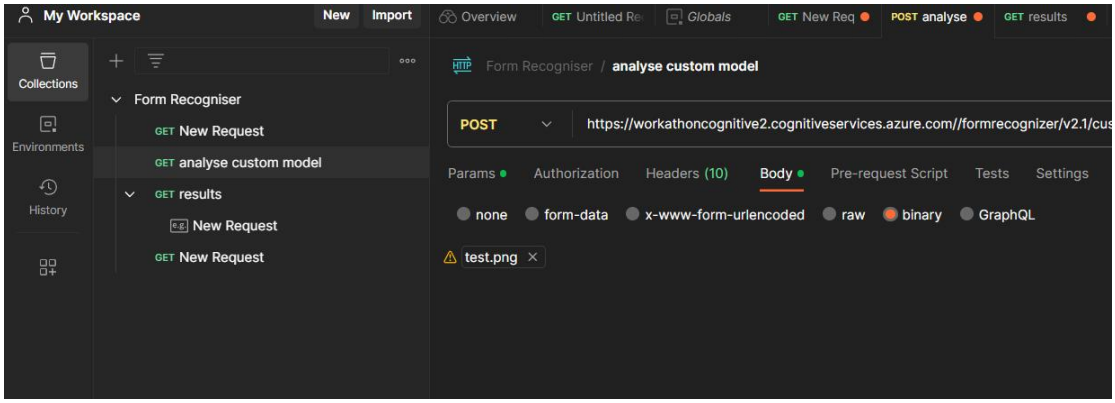


Click on send. In the output, copy the model id, it will be used later:

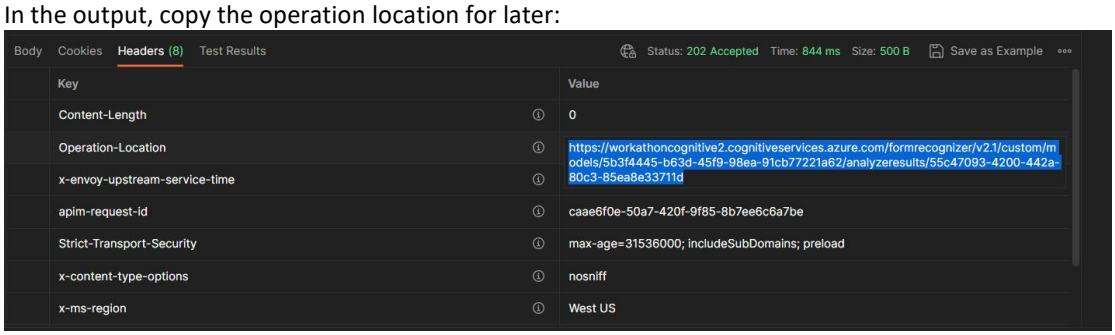


13) Add another request, but this time instead of get, select post
API CALL 1 (POST)
URL 1: {{endpoint}}/formrecognizer/v2.1/custom/models/9b619e32-a40f-4442-8a83-344557b592a9/analyze? includeTextDetails=true
Replace the underlined part with the Composed model key you copied in above step.
Headers :
Ocp-Apim-Subscription-Key : {{key}}
Content-Type : image/png

Body :
Select Binary and upload the test image for either Driver's Licence or Aadhaar card. Click send

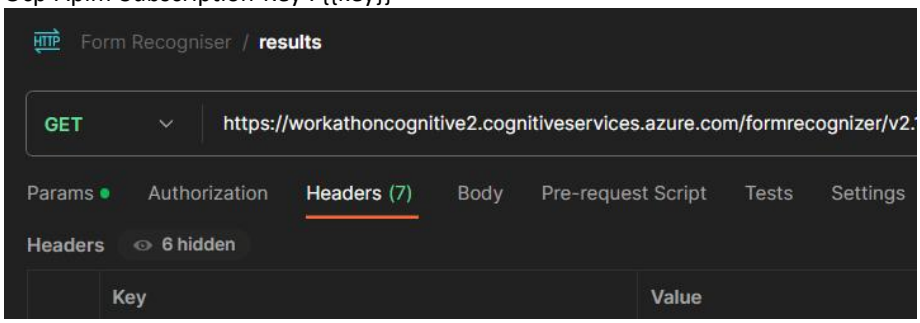


In the output, copy the operation location for later:

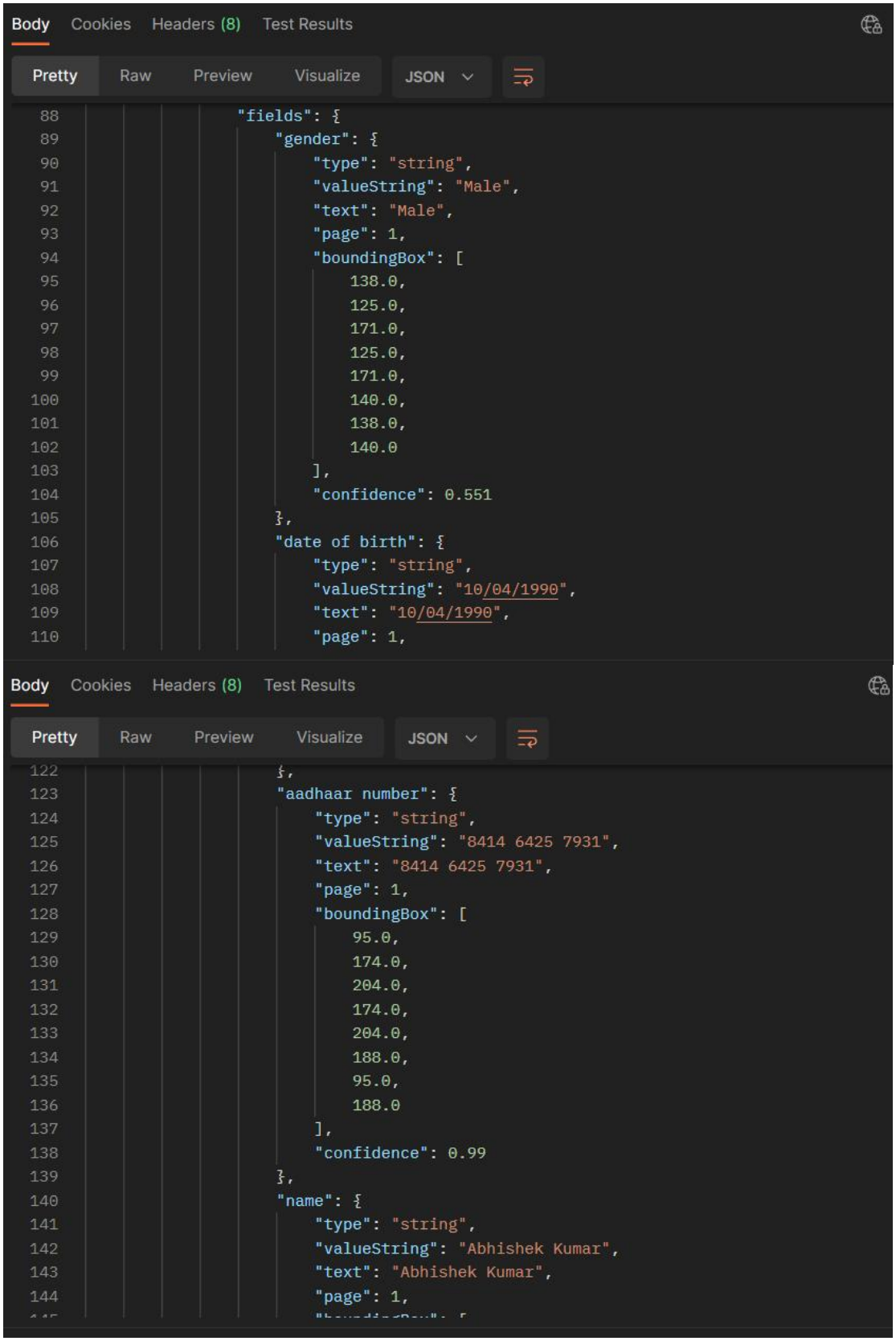


14) Add another GET request,
API CALL 2 (GET)

URL2 : Operation-Location fetched earlier
Headers :
Ocp-Apim-Subscription-Key : {{key}}



Final output:



you will get all the details.