

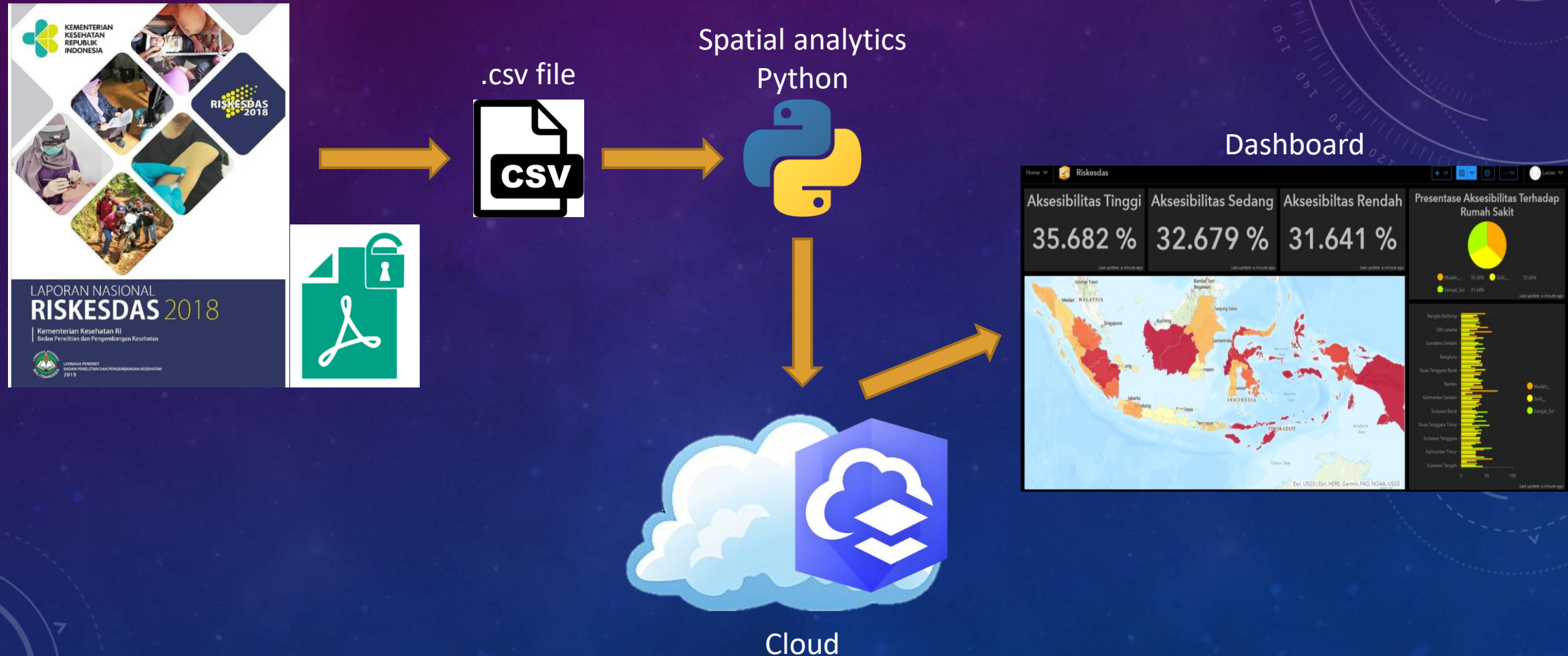
The background is a gradient of dark blue and purple, speckled with white dots resembling stars. Overlaid on the left side are several concentric circular patterns, some with tick marks and numbers (40, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260) and arrows, suggesting a circular or orbital theme.

PYTHON FOR SPATIAL ANALYTICS

LUCAS ELBERT SURYANA

GEOLYTICS INSTITUTE

WORKING PROCEDURE ON TODAY'S SESSION



HOW TO RUN PYTHON

On your local

localhost:8888/notebooks/Geolytics%20-%20Python%20Spatial%20Analytics.ipynb

Jupyter Geolytics - Python Spatial Analytics Last Checkpoint: 6 hours ago (unsaved changes) Logout

File Edit View Insert Cell Kernel Widgets Help Trusted Kernel

```
In [4]: # panggil library
import pandas as pd
# tentukan lokasi data riskedas
dataset = 'riskedas.csv'
# panggil dataset sebagai dataframe
data = pd.read_csv(dataset)
# lihat 10 data pertama
data.head()
```

Out[4]:

	Provinsi	percent_mudah	CI_plus_std_mudah	CI_minus_std_mudah	percent_sulit	CI_plus_std_sulit	CI_minus_std_sulit	percent_sangat_sulit	CI_plus_std_sangat
0	Aceh	29.8	27.9	31.7	41.8	39.6	44.1	28.4	
1	Sumatera Utara	38.8	37.1	40.4	36.7	35.0	38.5	24.5	
2	Sumatera Barat	35.1	32.9	37.4	38.1	35.8	40.4	26.8	
3	Riau	36.6	34.3	38.9	28.0	25.6	30.5	35.4	
4	Jambi	25.3	22.9	27.9	32.7	29.8	35.8	41.9	

```
In [5]: from arcgis.features import GeoAccessor
# Akses data batas kelurahan
location = 'C:\Users\Lucas Elbert Suryana\Documents\Kerja\Geolytics\Pelatihan\prov\prov.shp'
data = GeoAccessor.from_featureclass(location)
```

In [6]: data

Out[6]:

	FID	NAME_1	KODE	SHAPE
0	0	Bangka Belitung	19	("rings": [[107.96173096, -3.41100407], [107....
1	1	Gorontalo	75	("rings": [[122.81573486, 0.84675884], [122.8...
2	2	Riau	14	("rings": [[101.64431763, -0.82552189], [101...

On cloud

lucascloud.maps.arcgis.com/home/notebook/notebook.html?id=9e6c7d1522954de08c9c7ebd283be1ca#

Riskedas (unsaved changes)

Add Analysis Files Share Info

File Edit View Insert Cell Kernel Help Not Connected Python 3

```
Welcome to your notebook.
```

```
Run this cell to connect to your GIS and get started:
```

```
In [2]: from arcgis.gis import GIS
gis = GIS("home")

/opt/conda/lib/python3.6/site-packages/arcgis/gis/___init___py:407: UserWarning: You are logged on as lesuryana_cit with an administrator role, proceed with caution.
self.users.me.username)
```

```
Now you are ready to start!
```

Panggil data riskedas

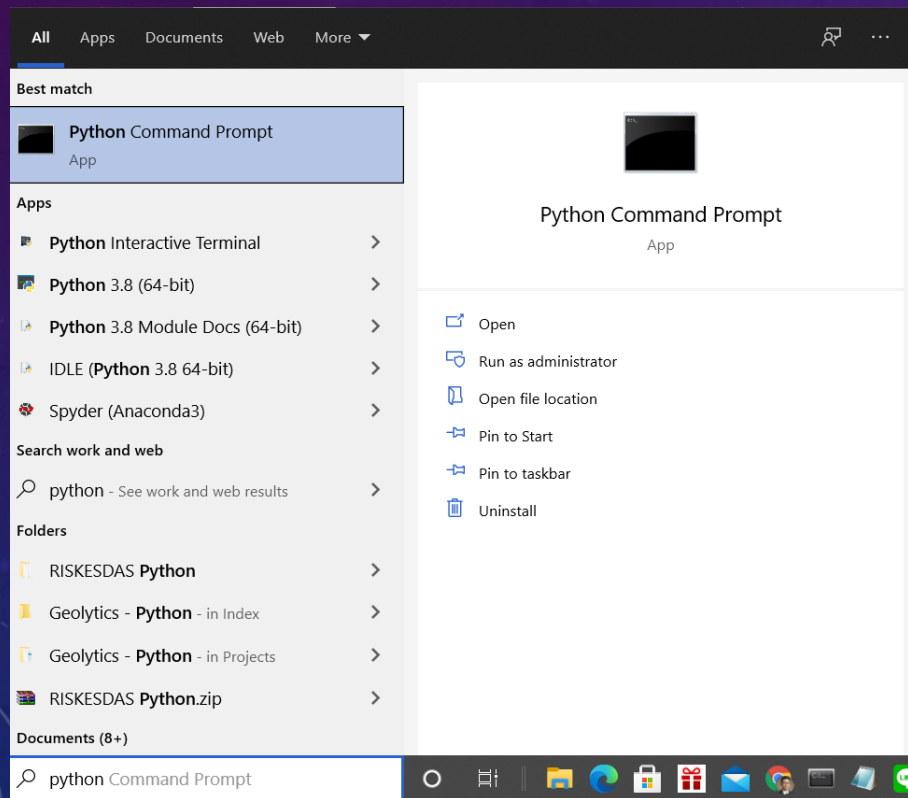
```
In [5]: # panggil library
import pandas as pd
# tentukan lokasi data riskedas
dataset = '/arcgis/home/riskedas.csv'
# panggil dataset sebagai dataframe
data = pd.read_csv(dataset)
# lihat 10 data pertama
data.head()
```

Out[5]:

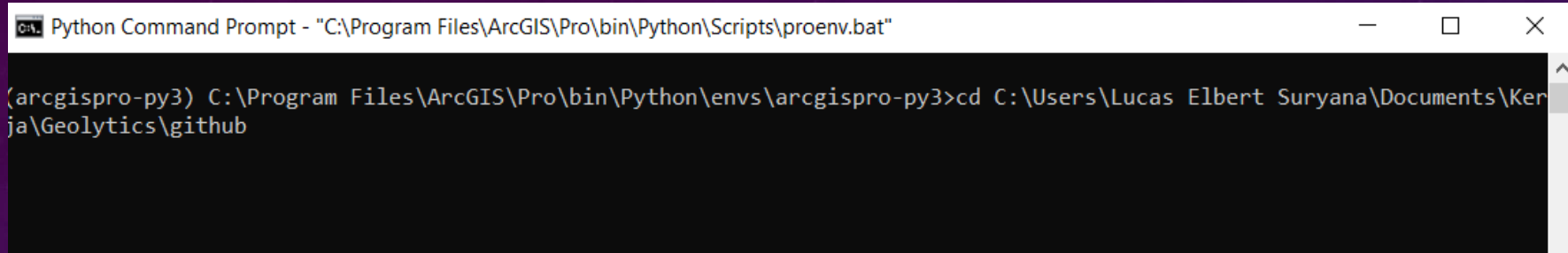
	Provinsi	percent_mudah	CI_plus_std_mudah	CI_minus_std_mudah	percent_sulit	CI_plus_std_sulit	CI_minus_std_sulit	percent_sangat_sulit	CI_plus_std_sangat_sulit	CI_minus_std_sangat_sulit	Unnamed: 10
0	Aceh	29.8	27.9	31.7	41.8	39.6	44.1	28.4	26.3	30.5	4876
1	Sumatera Utara	38.8	37.1	40.4	36.7	35.0	38.5	24.5	23.0	26.1	12528

HOW TO RUN PYTHON – ON YOUR LOCAL

- Type Python Command Prompt on your search (make sure you have installed Arcgis Pro or you can use your local python installation, ex: anaconda jupyter notebook)



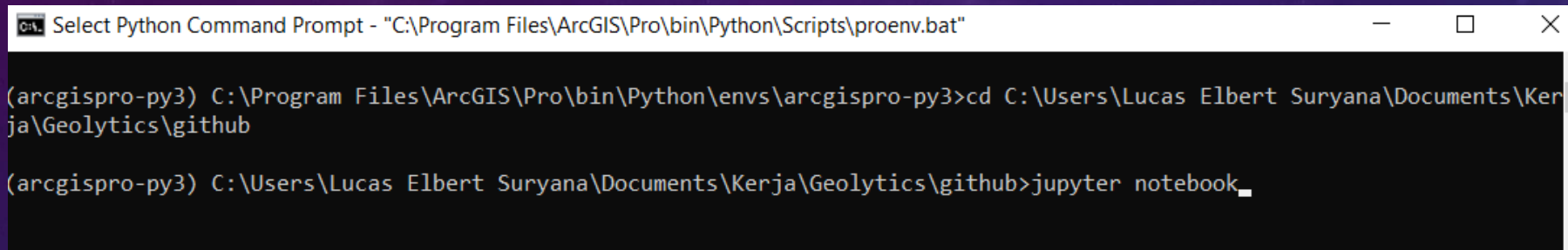
- Set location by typing `cd <your folder location>`



```
Python Command Prompt - "C:\Program Files\ArcGIS\Pro\bin\Python\Scripts\proenv.bat"

(arcgispro-py3) C:\Program Files\ArcGIS\Pro\bin\Python\envs\arcgispro-py3>cd C:\Users\Lucas Elbert Suryana\Documents\Kerja\Geolytics\github
```

- Type `jupyter notebook`

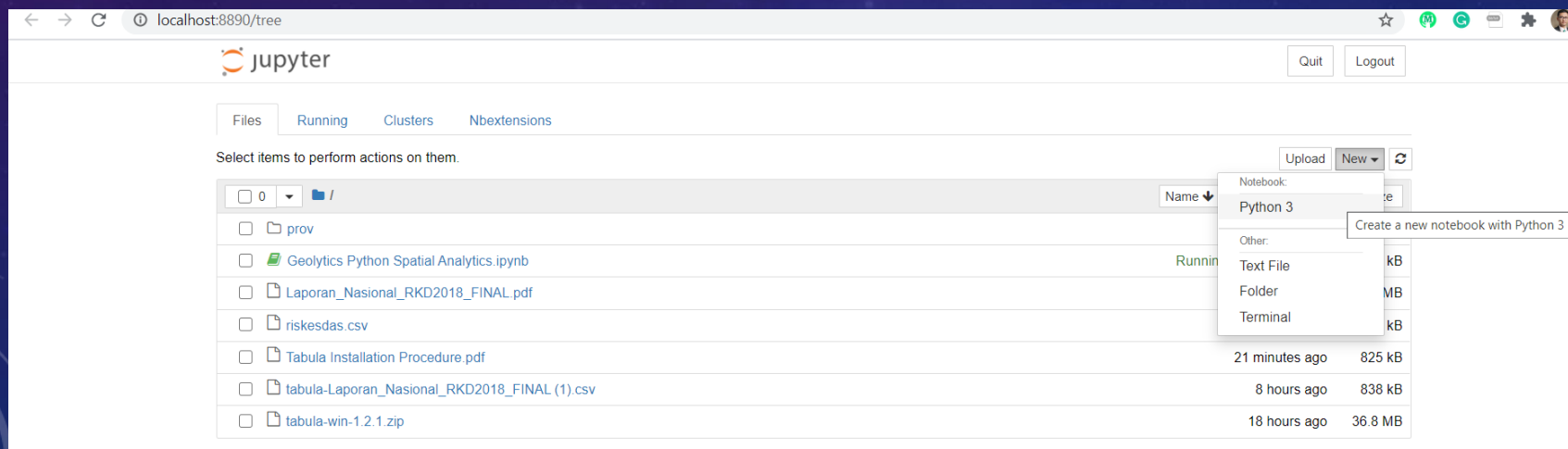


```
Select Python Command Prompt - "C:\Program Files\ArcGIS\Pro\bin\Python\Scripts\proenv.bat"

(arcgispro-py3) C:\Program Files\ArcGIS\Pro\bin\Python\envs\arcgispro-py3>cd C:\Users\Lucas Elbert Suryana\Documents\Kerja\Geolytics\github

(arcgispro-py3) C:\Users\Lucas Elbert Suryana\Documents\Kerja\Geolytics\github>jupyter notebook
```

- Click new and set python 3



- Build your own code

localhost:8890/notebooks/Geolytics%20Python%20Spatial%20Analytics.ipynb

jupyter Geolytics Python Spatial Analytics Last Checkpoint: 8 hours ago (autosaved) Python 3

File Edit View Insert Cell Kernel Widgets Help

In [1]: `import arcpy
import arcgis`

In [4]: `# panggil library
import pandas as pd
tentukan lokasi data riskesdas
dataset = 'riskesdas.csv'
panggil dataset sebagai dataframe
data = pd.read_csv(dataset)
lihat 10 data pertama
data.head()`

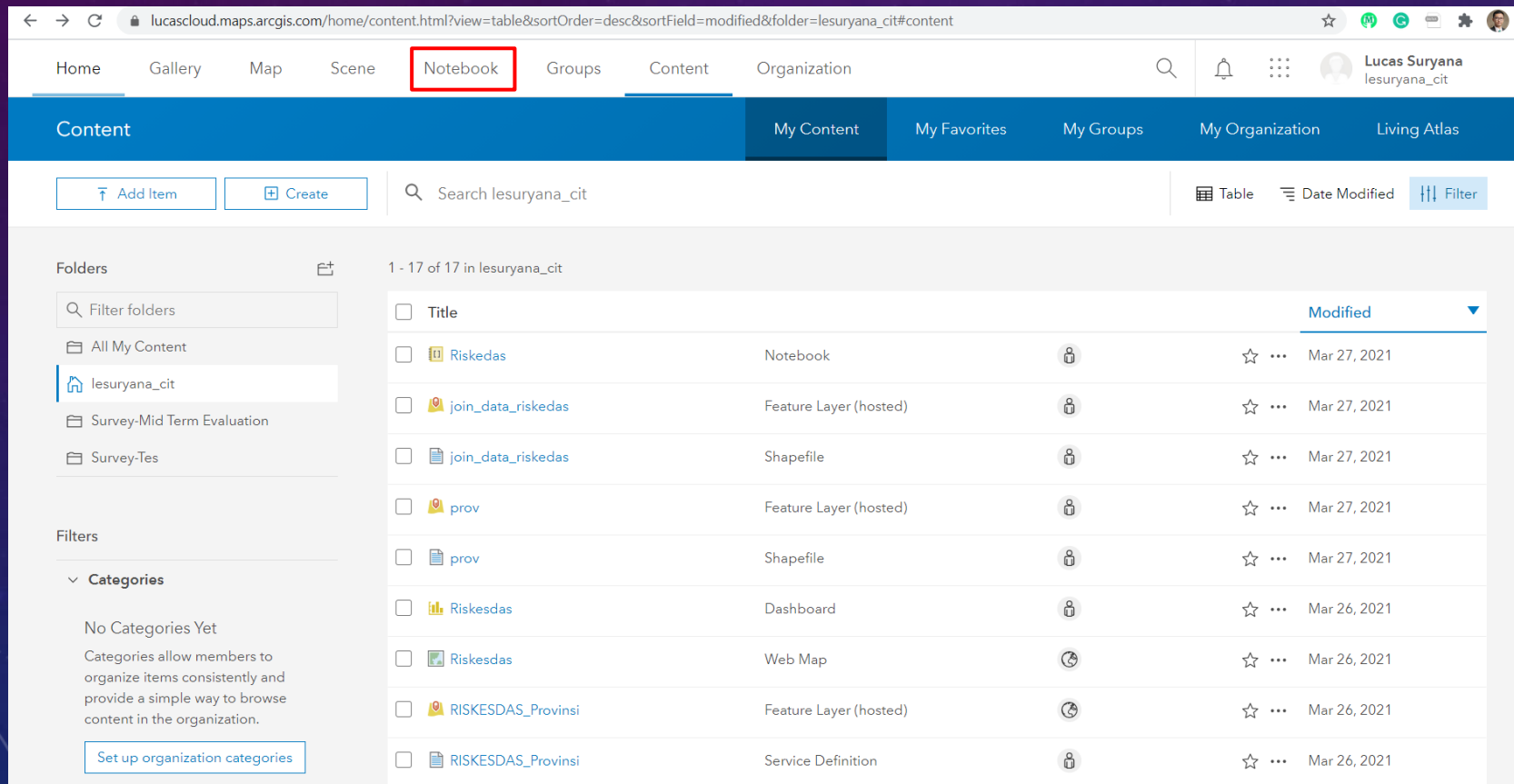
Out[4]:

	Provinsi	percent_mudah	CI_plus_std_mudah	CI_minus_std_mudah	percent_sulit	CI_plus_std_sulit	CI_minus_std_sulit	percent_sangat_sulit	CI_plus_std_sangat_sulit
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4	Jambi	25.3	22.9	27.9	32.7	29.8	35.8	41.9	

In [5]: `from arcgis.features import GeoAccessor
Akses data batas kelurahan
location = 'C:\\Users\\Lucas Elbert Suryana\\Documents\\Kerja\\Geolytics\\Pelatihan\\prov\\prov.shp'
data = GeoAccessor.from_featureclass(location)`

HOW TO RUN PYTHON – ON CLOUD

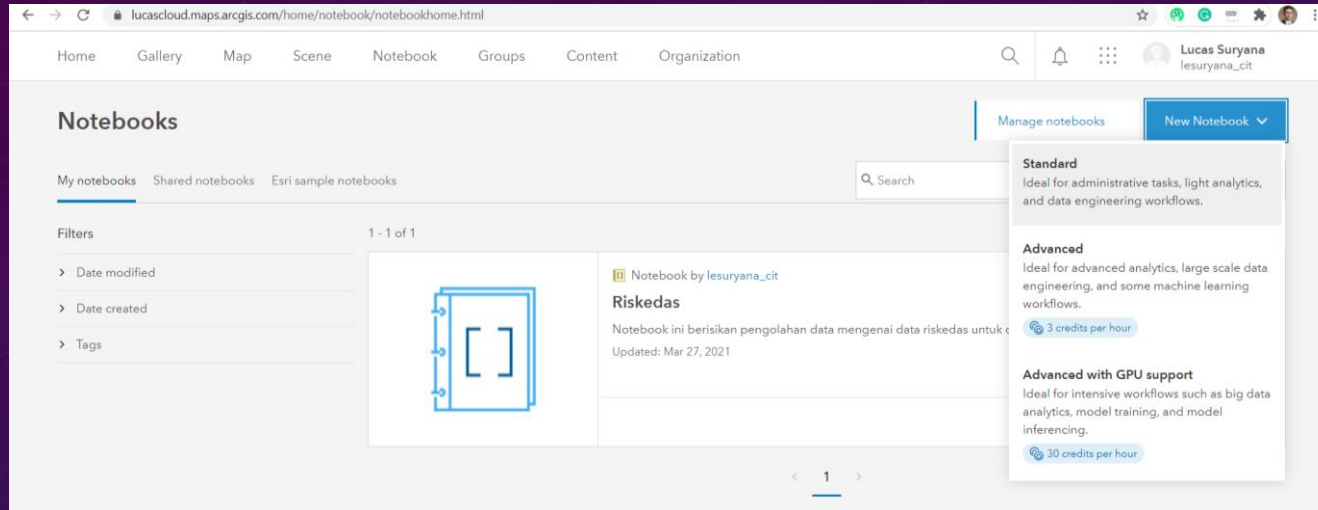
- Open AGOL' site and click Notebook tab (or you can use Google Colab instead)



The screenshot shows the ArcGIS Online (AGOL) interface. The top navigation bar includes tabs for Home, Gallery, Map, Scene, **Notebook** (highlighted with a red box), Groups, Content, and Organization. Below the navigation bar, the 'Content' section is active, showing a list of items under the 'lesuryana_cit' folder. The list includes various items such as notebooks, feature layers, shapefiles, and dashboards, all created on March 26 or 27, 2021. The 'Notebook' tab is highlighted with a red box.

Title	Type	Modified
<input type="checkbox"/> Riskedas	Notebook	Mar 27, 2021
<input type="checkbox"/> join_data_riskedas	Feature Layer (hosted)	Mar 27, 2021
<input type="checkbox"/> join_data_riskedas	Shapefile	Mar 27, 2021
<input type="checkbox"/> prov	Feature Layer (hosted)	Mar 27, 2021
<input type="checkbox"/> prov	Shapefile	Mar 27, 2021
<input type="checkbox"/> Riskedas	Dashboard	Mar 26, 2021
<input type="checkbox"/> Riskedas	Web Map	Mar 26, 2021
<input type="checkbox"/> RISKESDAS_Provinsi	Feature Layer (hosted)	Mar 26, 2021
<input type="checkbox"/> RISKESDAS_Provinsi	Service Definition	Mar 26, 2021

- Click New Notebook and select Standard



- Build your own code

