MEE 3033: KEPINTARAN BUATAN / *ARTIFICIAL INTELLIGENCES*

SESI PENGAJIAN: SEM 2 (2021/2022)

KUMPULAN KULIAH MEE 3033 (A211): A

(*INDIVIDUAL ASSIGMENT***)**

Download Flag Datasets on UCI Machine Learning Repository and Import To RapidMiner

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Please download the Flag dataset from UCI Repository. Then import it into your folder in RapidMiner. Set the country as the label for the data and set the header names for all the column attributes. The information can be found on the flag dataset UCI website. Screenshot your step-by-step procedure (starting from the downloading process UCI website up to the result in RapidMiner software) and describe each step taken along the way. For the final image (as the example given below), please print screen your entire laptop/computer screen so I could evaluate your work. Submit your work as a pdf file in the MyGuru platform.
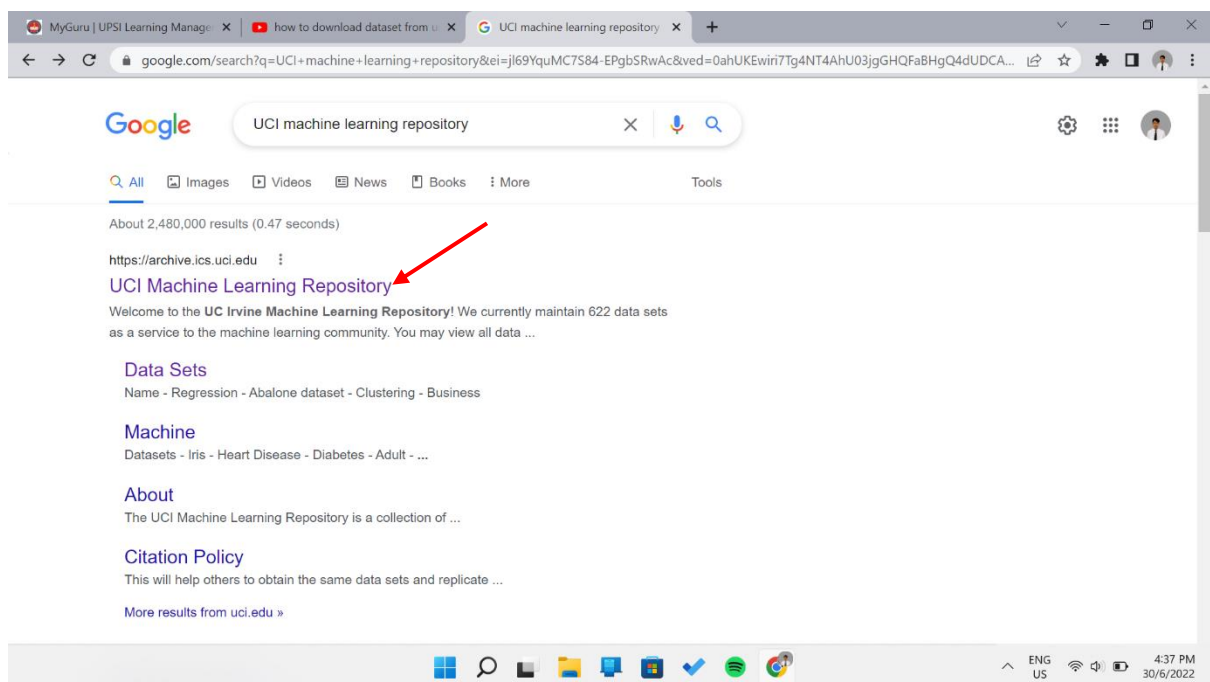
1. UCI Machine Learning Repository

Figure 1: Google (Search UCI)

Go to google and search for UCI Machine Learning Repository[1]. After that, click or select the first one.
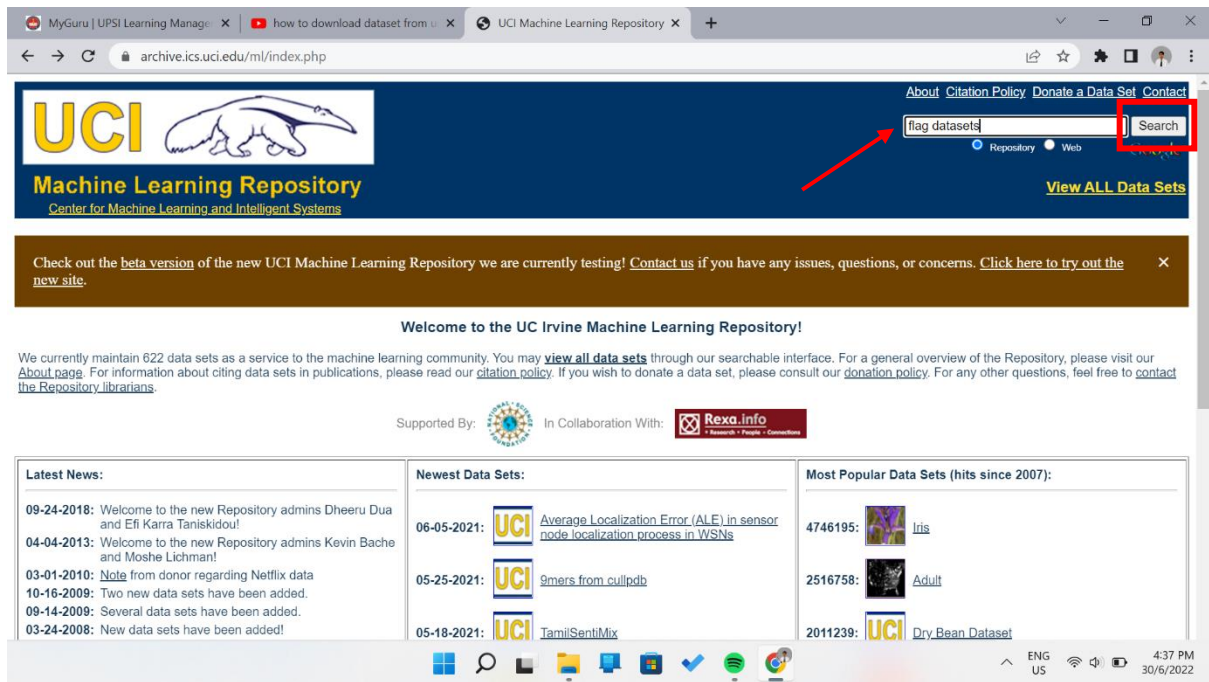
Figure 2: UCI Website

You will be taken to the main view of the UCI website. Search "Flag Datasets" on search box.
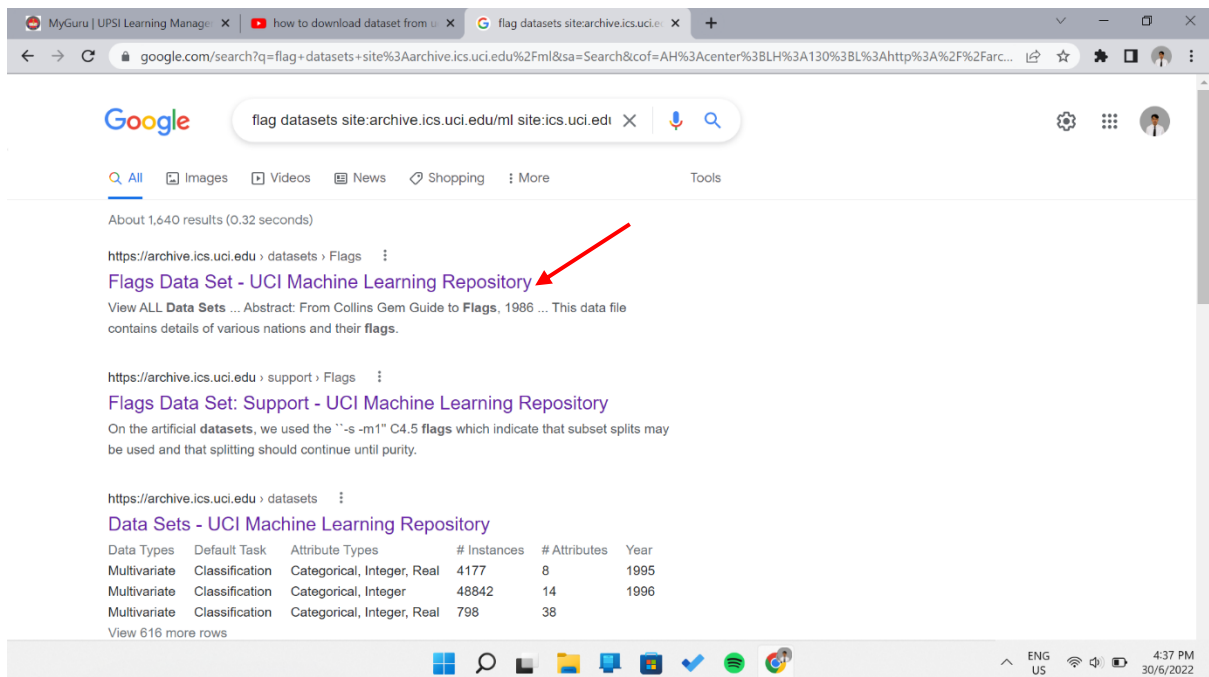

Figure 3: Google

After pressing the search button[2], you will be taken to google again. Click or select the first one
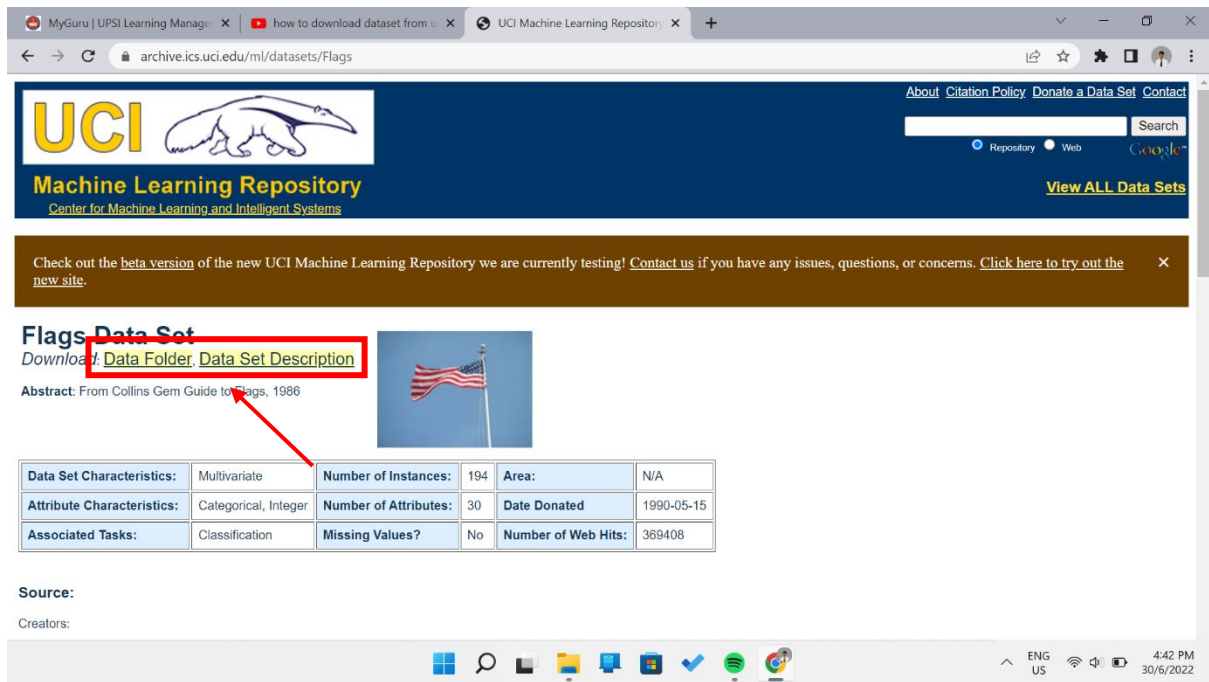
Figure 4: UCI Website (Flag Datasets)

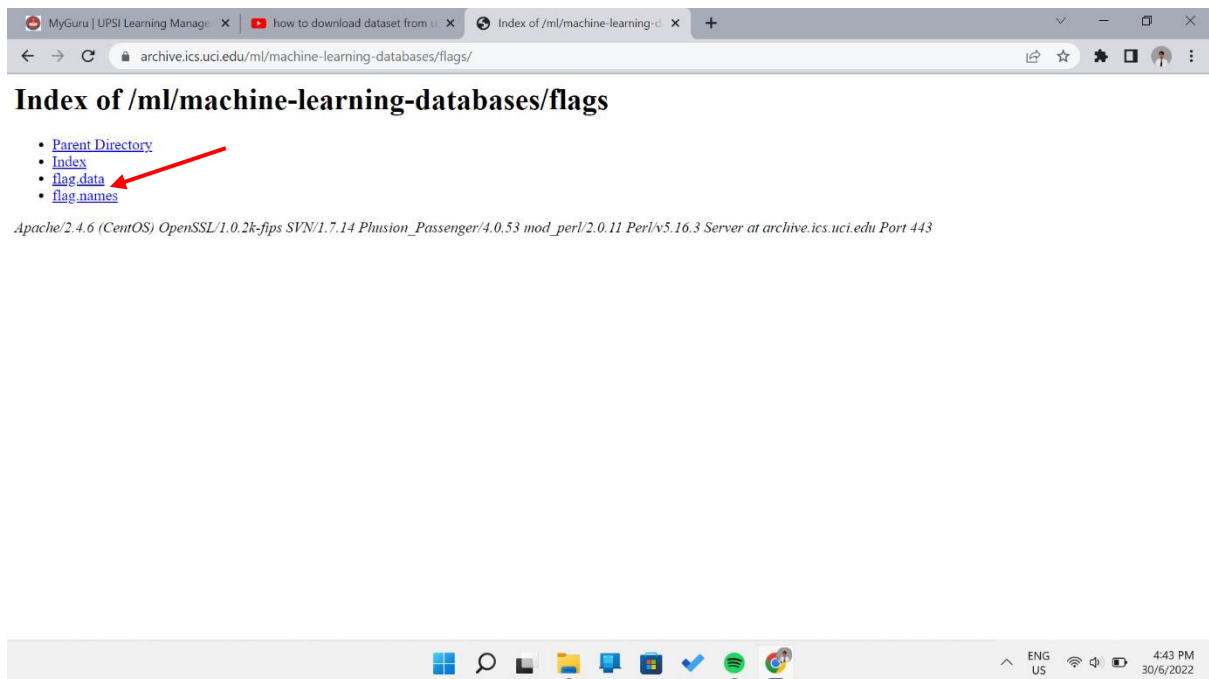After that, you will be led to the flag datasets in UCI website. Click or select the data folder.

Figure 5: Index for Flag Datasets

Select "flag.data" and download the file. *You can also download "flag.names" for the description* For me, I will just download it.
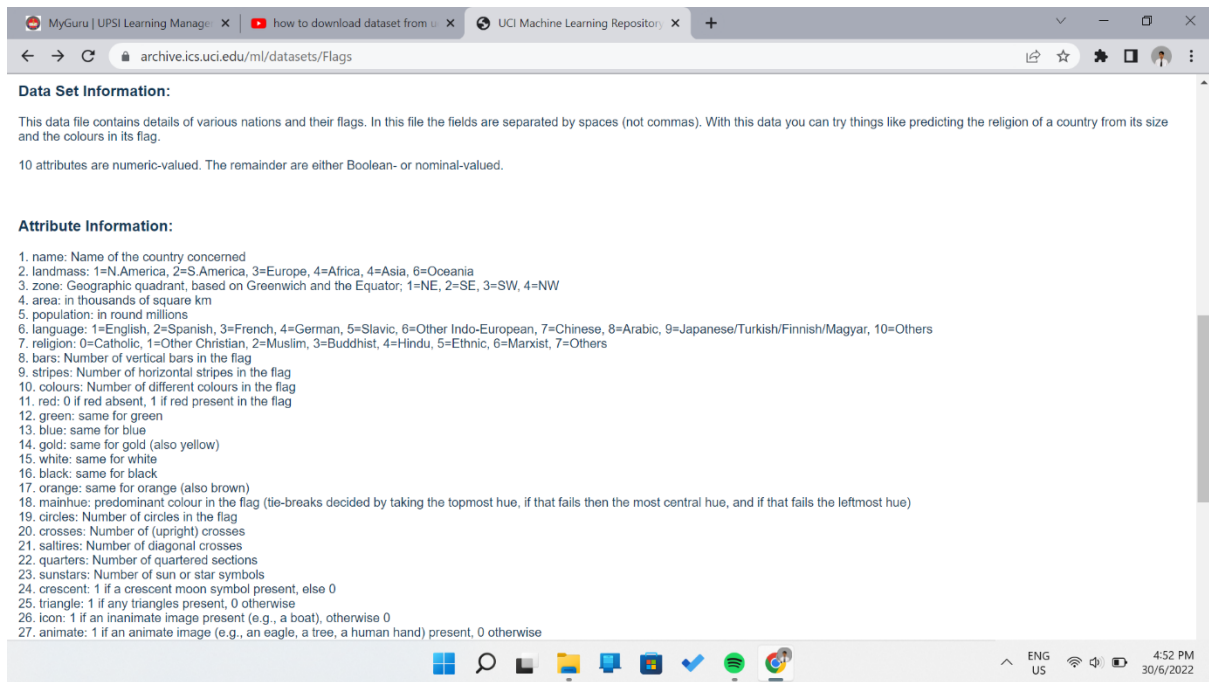
Data Set Information:

This data file contains details of various nations and their flags. In this file the fields are separated by spaces (not commas). With this data you can try things like predicting the religion of a country from its size and the colours in its flag.

10 attributes are numeric-valued. The remainder are either Boolean- or nominal-valued.

Attribute Information:

1. name: Name of the country concerned
2. landmass: 1=N.America, 2=S.America, 3=Europe, 4=Africa, 4=Asia, 6=Oceania
3. zone: Geographic quadrant, based on Greenwich and the Equator; 1=NE, 2=SE, 3=SW, 4=NW
4. area: in thousands of square km
5. population: in round millions
6. language: 1=English, 2=Spanish, 3=French, 4=German, 5=Slavic, 6=Other Indo-European, 7=Chinese, 8=Arabic, 9=Japanese/Turkish/Finnish/Magyar, 10=Others
7. religion: 0=Catholic, 1=Other Christian, 2=Muslim, 3=Buddhist, 4=Hindu, 5=Ethnic, 6=Marxist, 7=Others
8. bars: Number of vertical bars in the flag
9. stripes: Number of horizontal stripes in the flag
10. colours: Number of different colours in the flag
11. red: 0 if red absent, 1 if red present in the flag
12. green: same for green
13. blue: same for blue
14. gold: same for gold (also yellow)
15. white: same for white
16. black: same for black
17. orange: same for orange (also brown)
18. mainhue: predominant colour in the flag (tie-breaks decided by taking the topmost hue, if that fails then the most central hue, and if that fails the leftmost hue)
19. circles: Number of circles in the flag
20. crosses: Number of (upright) crosses
21. saltires: Number of diagonal crosses
22. quarters: Number of quartered sections
23. sunstars: Number of sun or star symbols
24. crescent: 1 if a crescent moon symbol present, else 0
25. triangle: 1 if any triangles present, 0 otherwise
26. icon: 1 if an inanimate image present (e.g., a boat), otherwise 0
27. animate: 1 if an animate image (e.g., an eagle, a tree, a human hand) present, 0 otherwise

Figure 6: UCI Website (Flag Datasets Description)

You also can download the data description by clicking the data set description[4]. If you don't want to download the description, you also can just see it from the ICU website on flag datasets.
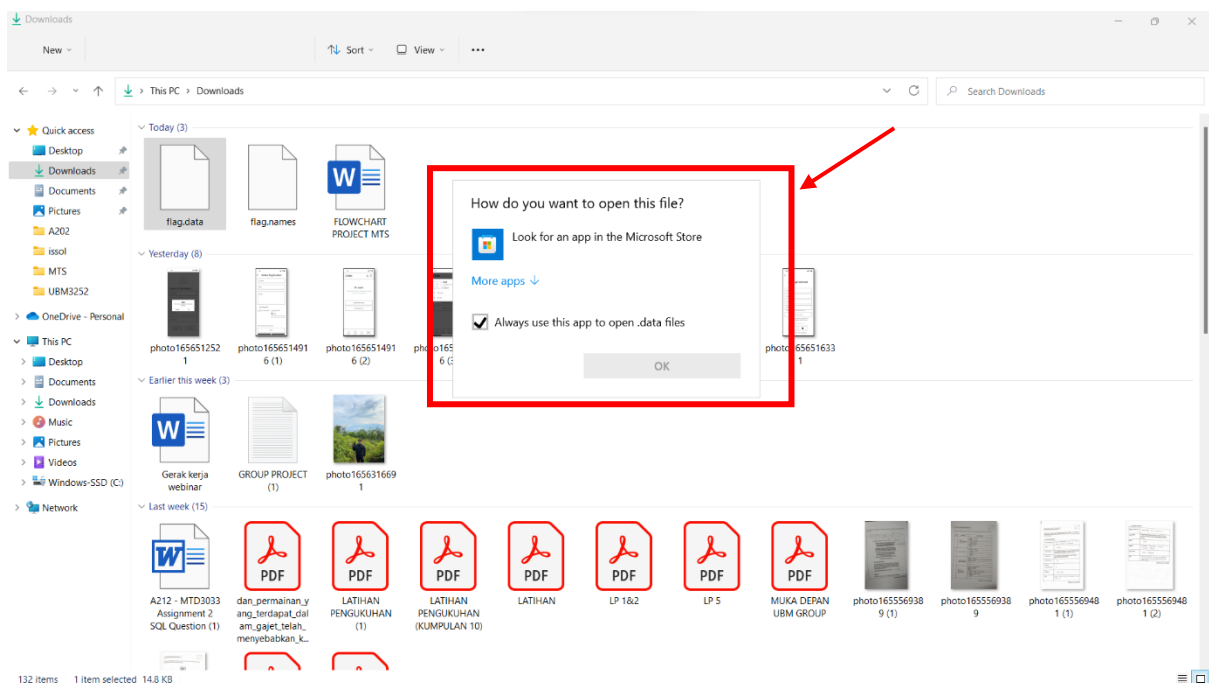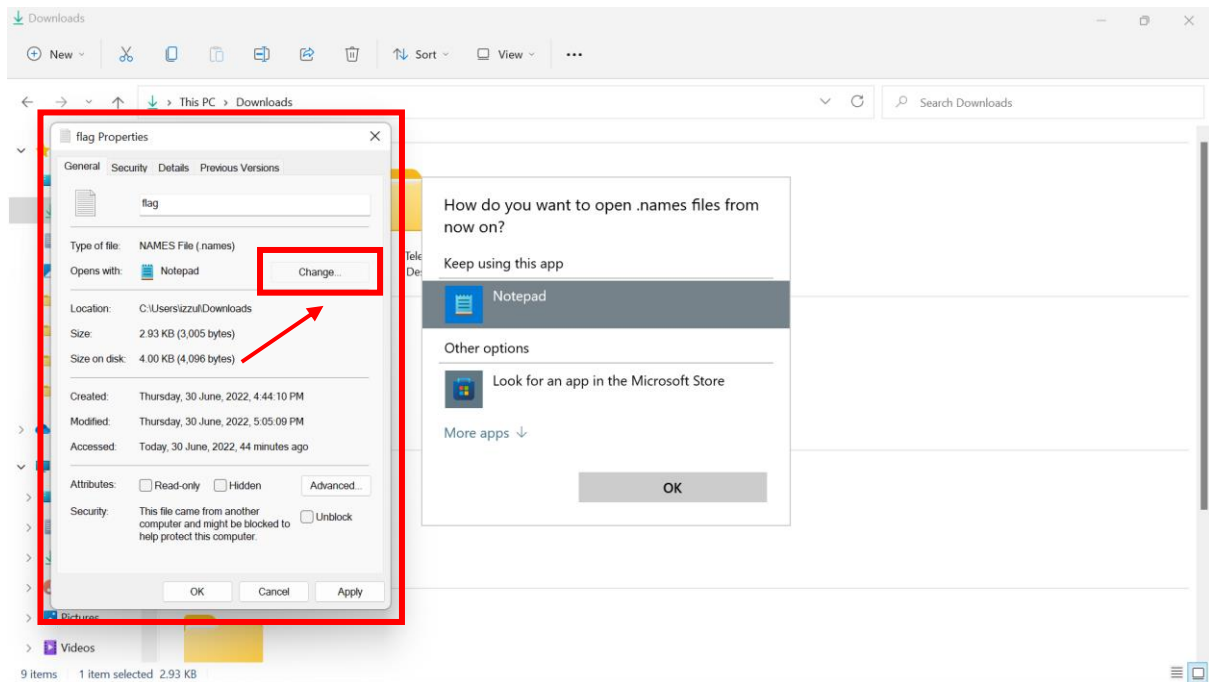

Figure 7: My Computer (Flag Datasets)

Figure 8: My Computer (Flag File Description)

After you downloaded the file of flag datasets, you will find that the file cannot be opened. Since that file cannot be open, we need to convert that file into notepad or text file. There's a lot of way to convert that file. First, right click flag file and find properties. Select those properties and click change on open with; select notepad to the data. *Do the same thing with data description file-if have*
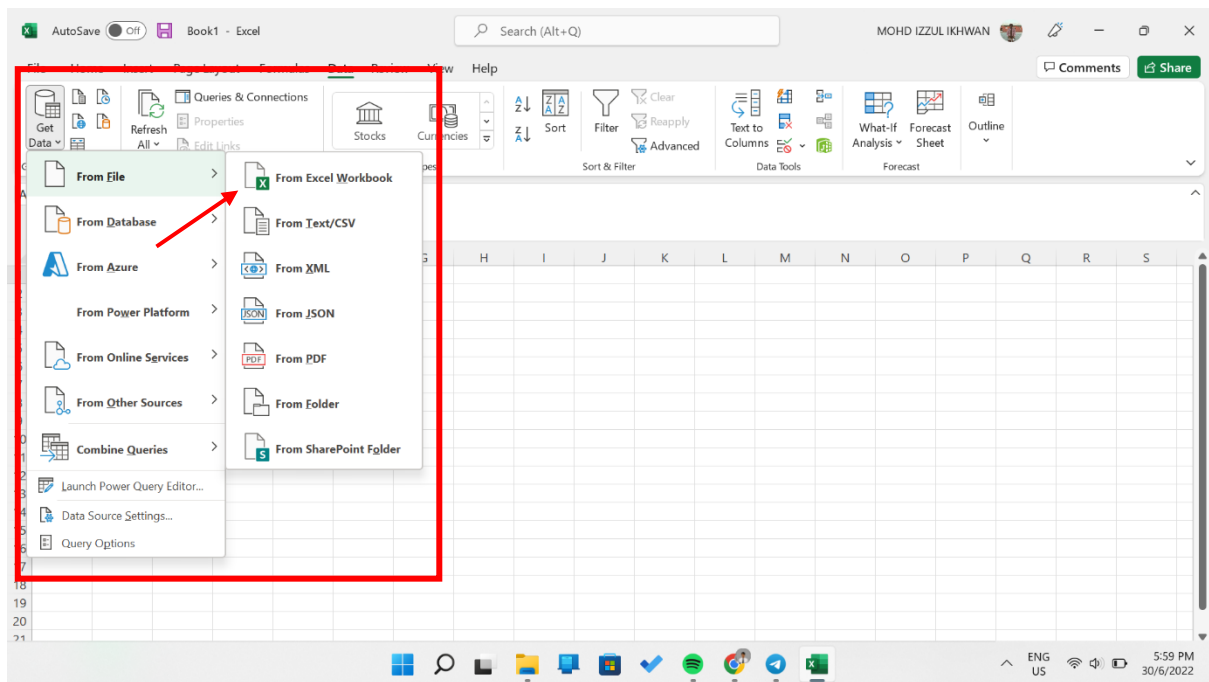
Figure 9: Excel (Importing Data)

Next step is open the Microsoft Excel on your computer. Go to "Data" and click on "Get Data". Click on "From File" and "From Text/CSV".
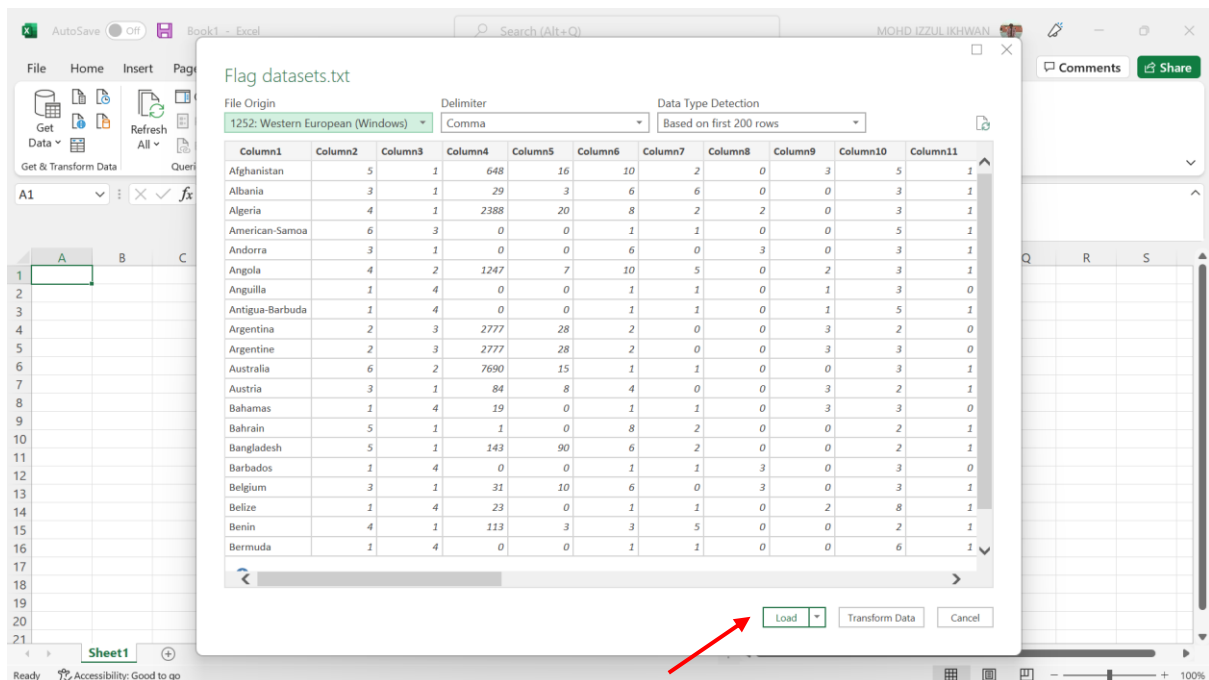
Figure 10: Excel (Data Setting/Preview)

After you choose the flag file, you now can customize and view the preview on how your table of data after converting. Just select load to see the real data after converting.
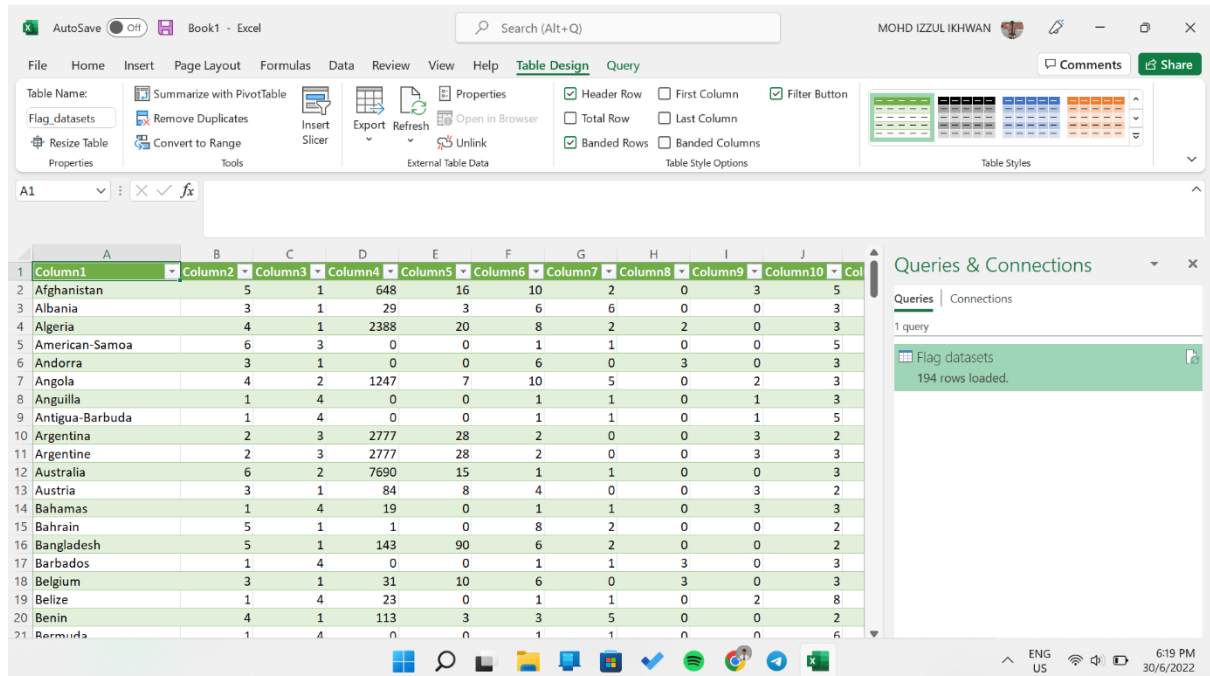
Figure 11: Excel (Columns)

You can see all the table data clearly except for the attributes name. we should insert it manually and have a revision from data descriptions that you had downloaded. *Or use the flag datasets description in UCL website[6]*
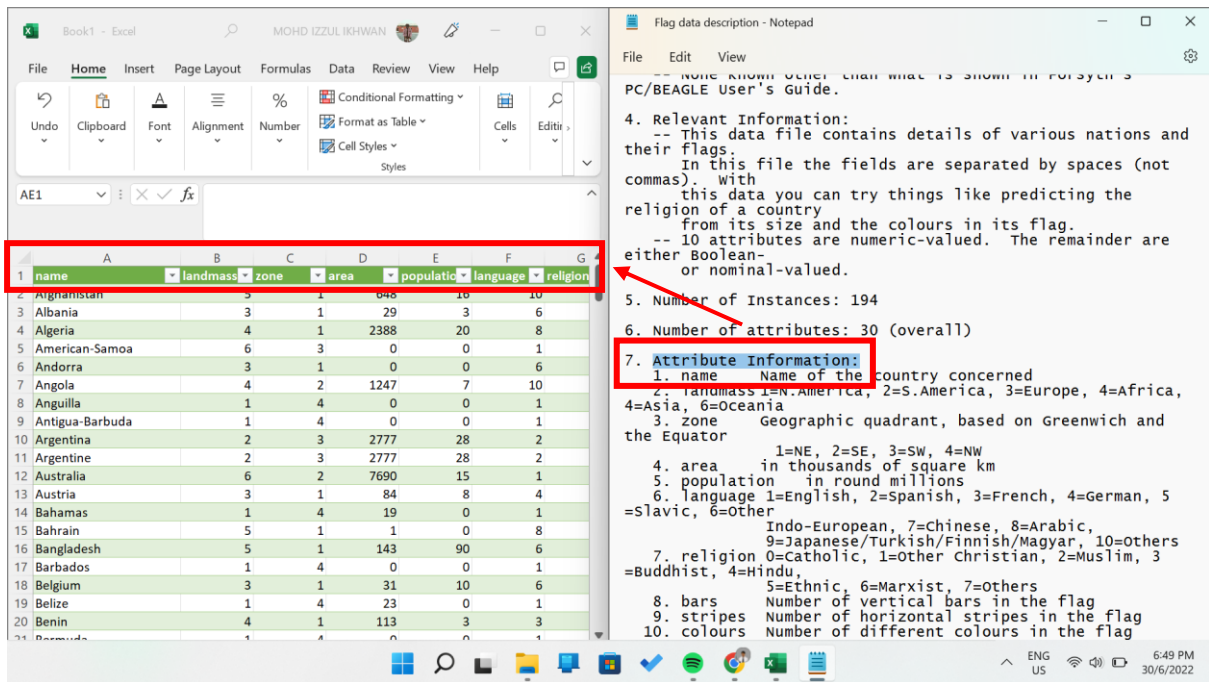
Figure 12: Excel and Notepad (Edit Columns)

It will see like this if you already manually insert the attributes name[12].
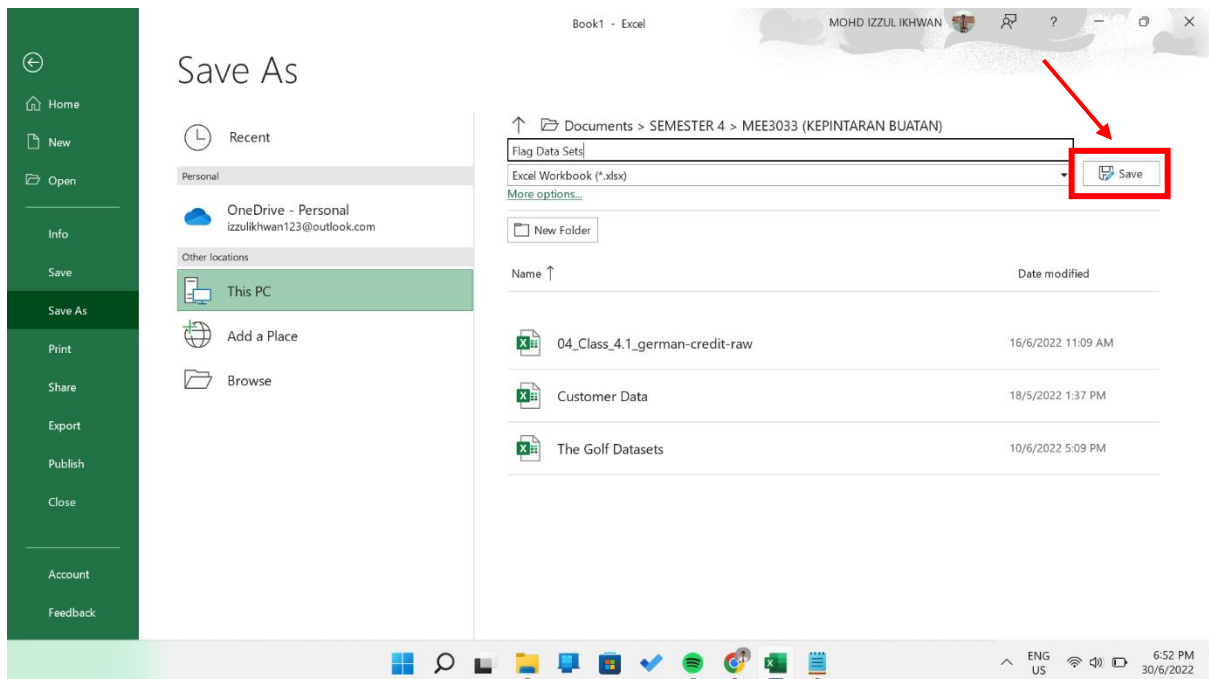
Figure 13: Excel (Save)

Save it for new excel file (.*XLSX*) so we can import the data to RapidMiner Software.
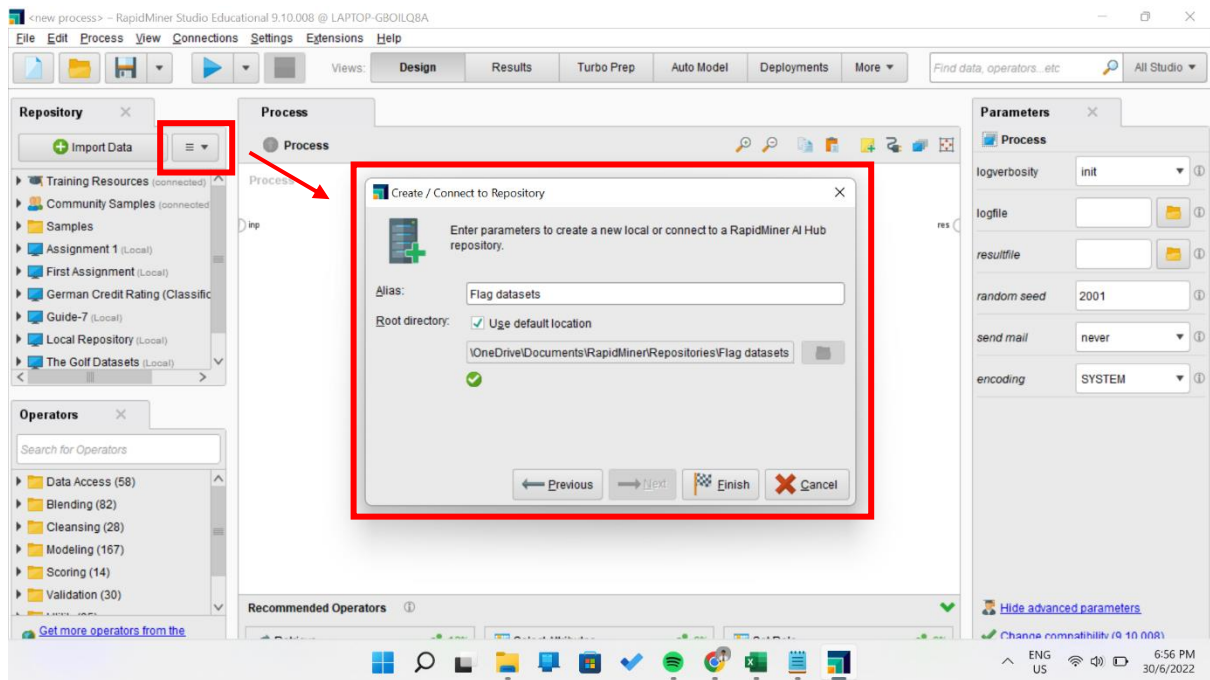
Figure 14: RapidMiner (Create Repository)

Next step, open RapidMiner and import the data to the RapidMiner. But first we must open new repository for this data.
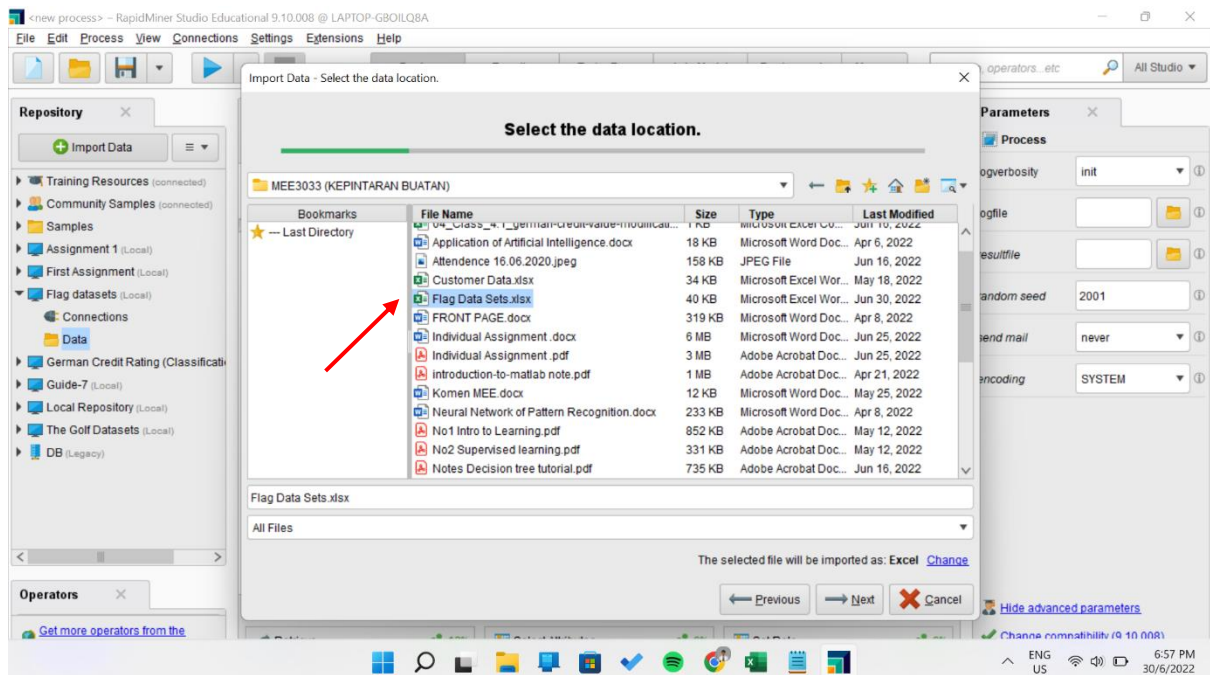
Figure 15: RapidMiner (Select Data)

After you create a flag datasets repository, click on import data, and select the flag datasets and click next.
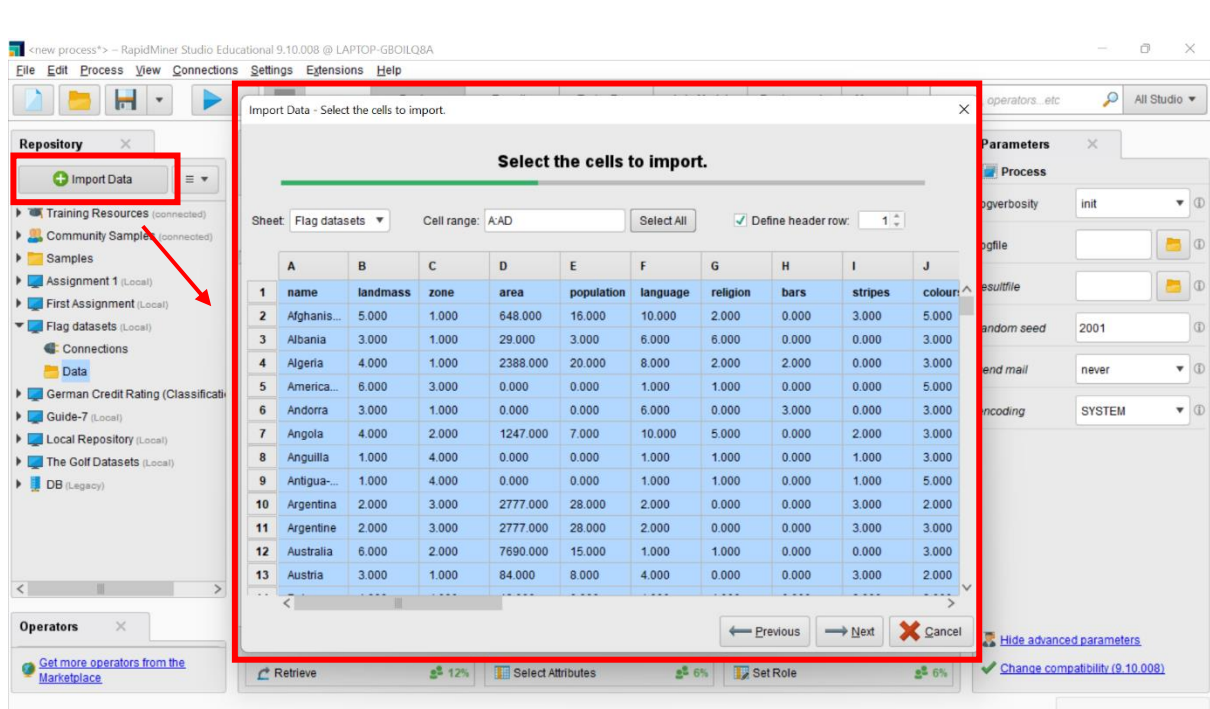
Figure 16: RapidMiner (Select Cells)

As usual, you will display this list on import data[16]. Just select all the cells to import all cells on the file.
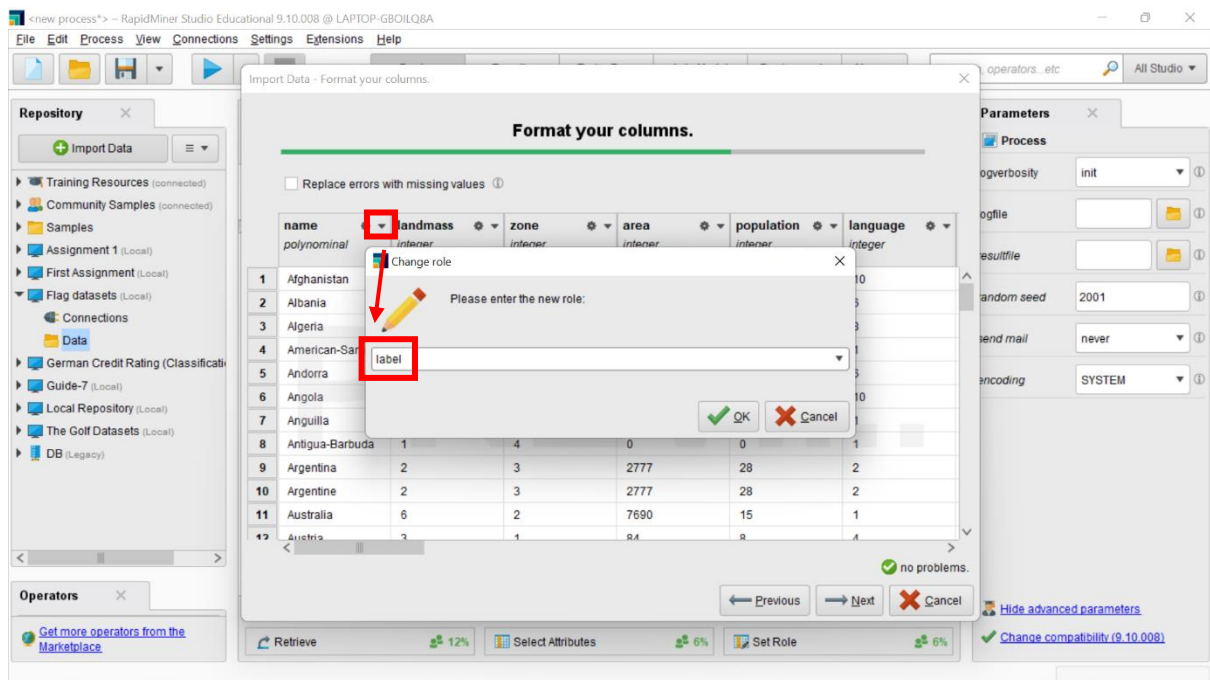
Figure 17: RapidMiner (Columns Customize)

On format columns step, change the role of the name attributes to "label" and just press next.
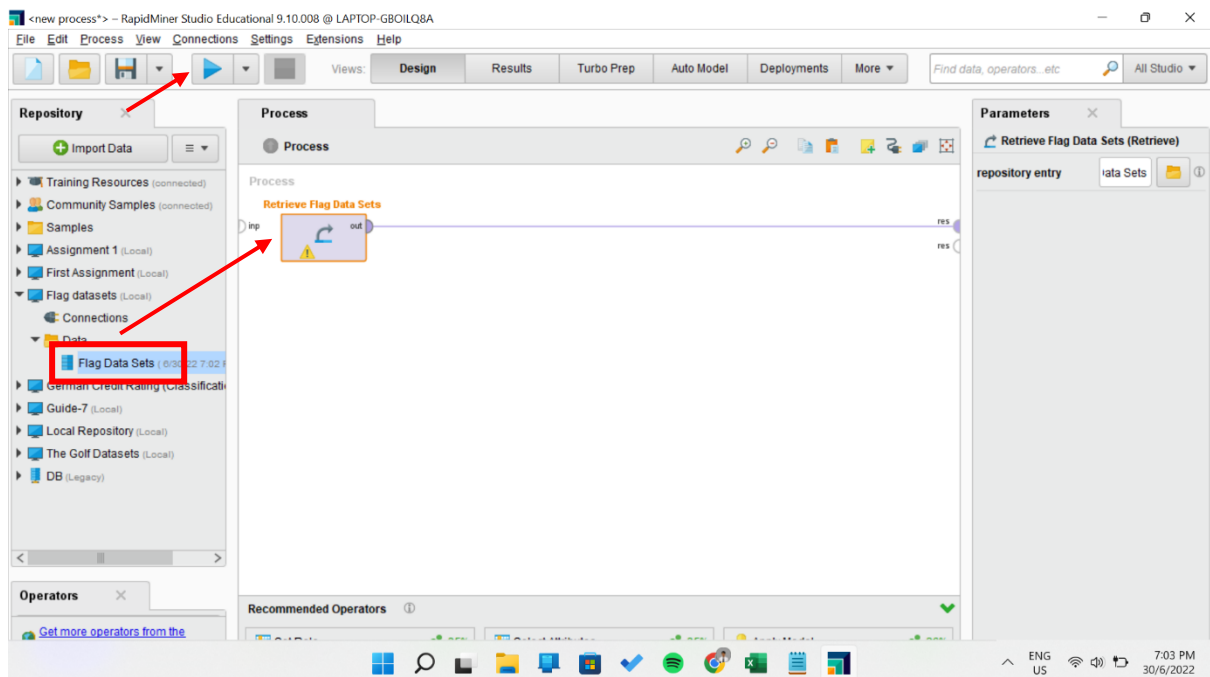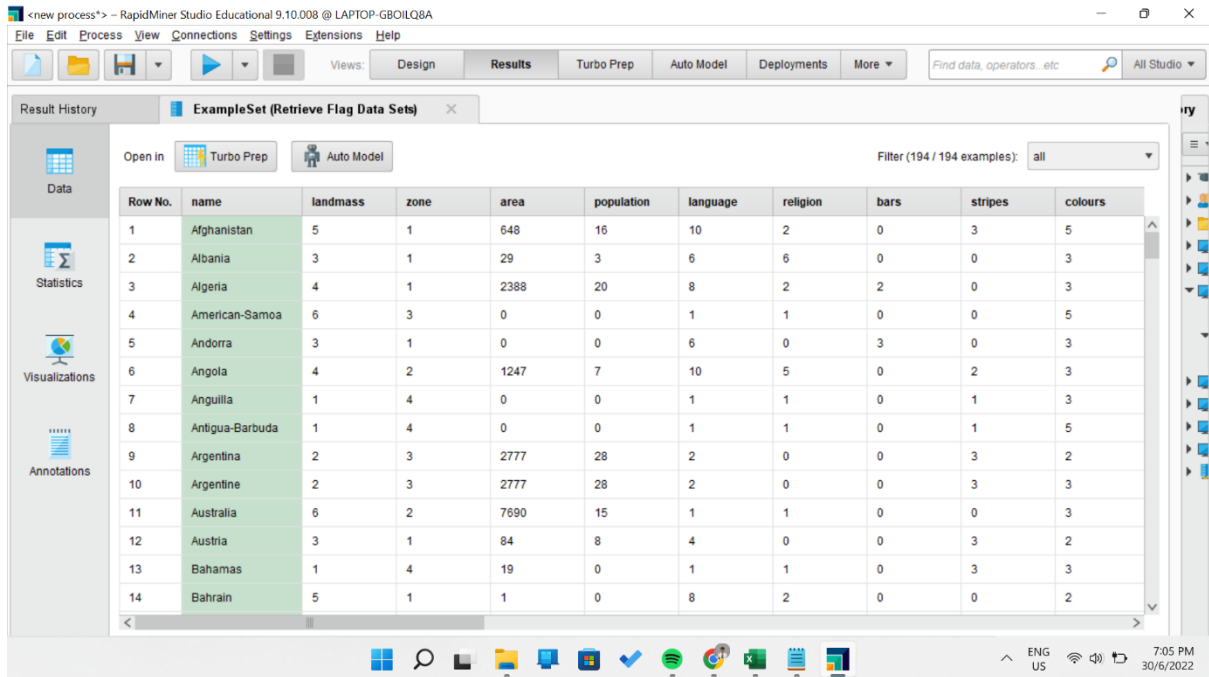
Figure 18: RapidMiner (Process)

Hold and drag the flag datasets to the process and link it to the process(res) and hit the run button.

Figure 19: Result-1

Figure 20: Result-2

Figure 21: Result-3

This is the outcome from that flag datasets that I downloaded it from UCI machine learning repository.