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Comparing Bamboolib vs Mito: The Libraries That Can Save You Hours on Data Processing



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Bamboo and Mito are Python libraries that can help you perform your data preparation, data cleaning, data transformation, exploratory data analysis, creating paragraphs and even doing some analysis on the data such as outlier analysis. These libraries are really easy to use even for someone that wants to do data analysis but still not fluent yet on programming languages especially python, it requires zero coding skill to use these libraries. Even for someone that is already fluent in coding, these libraries can help you on making the code so you don't have to bother to think about the code by yourself. Of course with this you can speed up your work easily.

Basically these two libraries have many similarities, such as having an UI to make it really easy for users to perform their task on the data they are going to use, they both can generate Python codes after interacting on their UI so you can copy and use it anywhere and learn about the code yourself.

Enough with the introduction about these two libraries, let's explore these two libraries deeper and see which of these two libraries that you can use to make your job easier. Let's get started!

Installation

Bamboolib

Installing Bamboolib is as simple as importing new libraries to use on your jupyter notebook. There are some way to install bamboolib, you can see all of it in here [*link*](#), but if you are too lazy and struggling to make a new environment, you can install it using a simple code like this pip install — upgrade bamboolib — user in your terminal, and it will work just fine. After bamboolib has been installed, now you can summon it by typing ‘ import bamboolib as bam’ and boom bamboolib has been summoned to your notebook and you are good to go.

Mito

For Mito, the installation is really simple too. Creating a new environment for your mito is recommended just like the developer said, but don’t be afraid if you don’t know anything about the environment, you can just type this code on to your terminal and everything is going to be under control. The code are:

For windows :

```
python3 -m venv mitoenv
mitoenv\Scripts\activate.bat
python -m pip install mitoinstaller
python -m mitoinstaller install
```

For Mac :

```
python3 -m venv mitoenv
source mitoenv/bin/activate
python -m pip install mitoinstaller
python -m mitoinstaller install
```

After that you can already use it by summoning mito UI to your notebook with code

```
import mitosheet
mitosheet.sheet()
```

What to do after installing the libs?

Well after installing and importing the libraries to your notebook, you can already use it as you wish and do whatever you want to the dataset that you are going to use. Here's the illustration of the UI of these libs and how to import your data sheet to your desired libraries.

The screenshot shows a Jupyter Notebook interface with two code cells and a data preview area below them.

In [15]:

```
df1 = pd.read_csv('ds_salaries.csv')
```

In [20]:

```
import mitosheet
mitosheet.sheet(df1, analysis_to_replay="id-jmxskcpcuo")
```

The data preview area displays a table with 12 columns and 607 rows. The columns are:

	work_year	experience_lev	employment_ty	job_title	salary	salary_currency	salary_in_usd	emple
	int	str	str	str	int	str	int	nce
0	2,020	MI	FT	Data Scientist	70,000	EUR	79,833	DE
1	2,020	SE	FT	Machine Learning Sc	260,000	USD	260,000	JP
2	2,020	SE	FT	Big Data Engineer	85,000	GBP	109,024	GB
3	2,020	MI	FT	Product Data Analyst	20,000	USD	20,000	HN
4	2,020	SE	FT	Machine Learning En	150,000	USD	150,000	US
5	2,020	EN	FT	Data Analyst	72,000	USD	72,000	US
6	2,020	SE	FT	Lead Data Scientist	190,000	USD	190,000	US
7	2,020	MI	FT	Data Scientist	11,000,000	HUF	35,735	HU
8	2,020	MI	FT	Business Data Analys	135,000	USD	135,000	US
9	2,020	SE	FT	Lead Data Engineer	125,000	USD	125,000	NZ
10	2,020	EN	FT	Data Scientist	45,000	EUR	51,321	FR
11	2,020	MI	FT	Data Scientist	3,000,000	INR	40,481	IN
12	2,020	EN	FT	Data Scientist	35,000	EUR	39,916	FR
13	2,020	MI	FT		27,000	HUF	27,000	HU

At the bottom of the data preview, there are buttons for '+', 'df1', 'lili graph0', and '(607 rows, 12 cols)'. The word 'Mito' is centered at the bottom of the interface.

The screenshot shows a Jupyter Notebook interface. At the top, there are two code cells:

```
In [23]: df1 = pd.read_csv('ds_salaries.csv')
In [26]: bam.show(df1)
```

A tooltip message "Pro Tip: save the time writing `bam.show(df)` and just write `df`. Enable this feature via `bam.enable()` and disable via `bam.disable()`" is displayed above the notebook area.

Below the code cells is a toolbar with icons for edit, refresh, history, export, and search. A search bar says "Search actions" with options "Create plot" and "Explore DataFrame".

The main content area shows a preview of a DataFrame with 607 rows and 12 columns. The columns are labeled: i Unnamed: 0, i work_year, o experience_level, o employment_type, o job_title, i salary, o salary_currency, and i. The data includes various job titles like Data Scientist, Machine Learning Engineer, Big Data Engineer, etc., with salaries ranging from 70000 to over 1 million.

At the bottom of the preview area is a link "Open in app" with a right-pointing arrow.



Data Preparation

Next we will discuss how Bamboolib and Mito can assist your work in data preparation. Both libraries offer functions and methods that can facilitate your work on data cleaning, merging and even filtering processes. We will explore some examples of using these libraries in the data preparation stages.

Almost all of the process in data preparation can be done in these two libs. Here are some examples that you can do in these libs in data preparation processes.

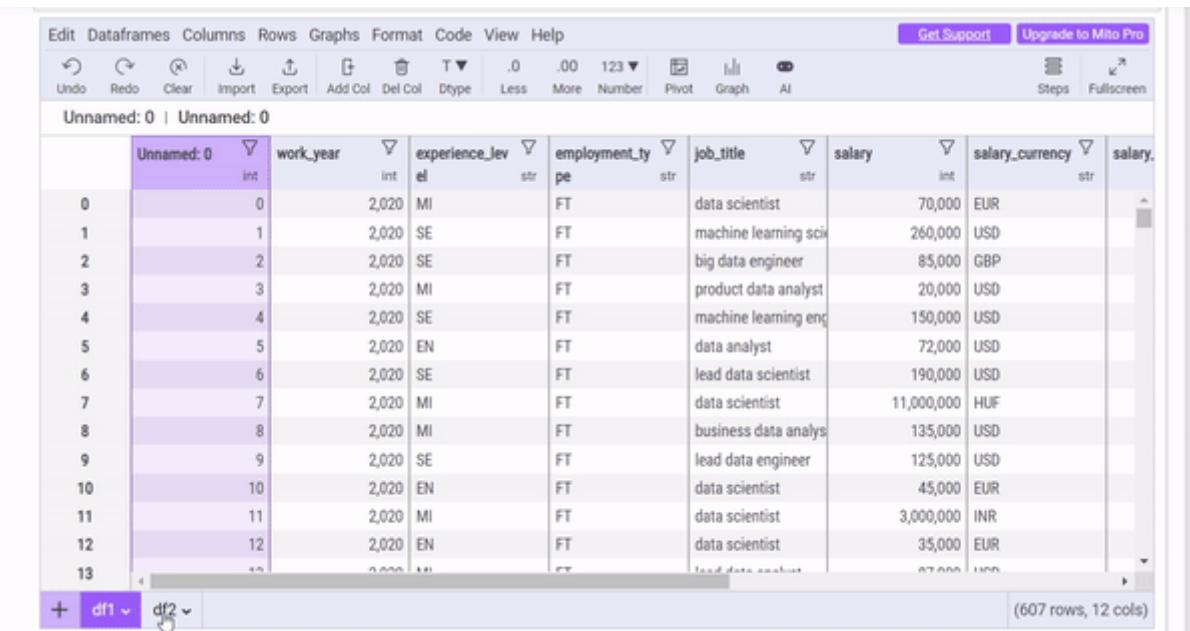
1. Cleaning Data

In real case data, the data often contains inconsistencies, whether it's about missing values, or outliers on the data that can impact the integrity and analysis that we do on the data and it can even disturb our modeling processes. With Bamboolib and Mito, you have access to functions and methods that are specifically designed to handle these issues. These libraries offer a range of features and examples to guide you through the data cleaning process. By leveraging their capabilities, you can ensure that your data is clean and ready for analysis.

2. Merging Data

It's not impossible when we are going to use some data to be analyzed or when we are going to make some modeling predictions, we need to use more than one dataset. With Bamboolib and Mito you can do it without even using any code. You just need to do some click on their UI and voila, your dataset is already merged cleanly. There are some ways to do it in these libraries. In Mito you can do it with IMPORT and upload your dataset from your computer, or if your dataset is already on your notebook and you wanna use some little bit of code you can use these simple lines to do it.

```
mitosheet.sheet(df1, df2)
```



The screenshot shows the Mito web application interface. At the top, there is a toolbar with various icons for file operations like Undo, Redo, Import, Export, and data manipulation like Add Col, Del Col, Dtype, Less, More, Number, Pivot, Graph, and AI. To the right of the toolbar are buttons for 'Get Support' and 'Upgrade to Mito Pro'. Below the toolbar, the title bar says 'Unnamed: 0 | Unnamed: 0'. The main area displays a table with 13 rows of data. The columns are labeled: work_year, experience_lev, employment_ty, job_title, salary, and salary_currency. The data includes various job titles like 'data scientist', 'machine learning sci...', 'big data engineer', etc., with salaries ranging from 20,000 to 11,000,000. The bottom of the interface shows tabs for '+ df1' and 'df2' with a dropdown arrow between them, and a status bar indicating '(607 rows, 12 cols)'.

	Unnamed: 0	work_year	experience_lev	employment_ty	job_title	salary	salary_currency	salary.
	int	int	el	str	str	int	str	str
0	0	2,020	MI	FT	data scientist	70,000	EUR	
1	1	2,020	SE	FT	machine learning sci...	260,000	USD	
2	2	2,020	SE	FT	big data engineer	85,000	GBP	
3	3	2,020	MI	FT	product data analyst	20,000	USD	
4	4	2,020	SE	FT	machine learning eng...	150,000	USD	
5	5	2,020	EN	FT	data analyst	72,000	USD	
6	6	2,020	SE	FT	lead data scientist	190,000	USD	
7	7	2,020	MI	FT	data scientist	11,000,000	HUF	
8	8	2,020	MI	FT	business data analys...	135,000	USD	
9	9	2,020	SE	FT	lead data engineer	125,000	USD	
10	10	2,020	EN	FT	data scientist	45,000	EUR	
11	11	2,020	MI	FT	data scientist	3,000,000	INR	
12	12	2,020	EN	FT	data scientist	35,000	EUR	
13		2,020	MI	FT	lead data scientist	67,000	HUF	

Join Dataframe on Mito

In Bamboolib you can just search for the Merge function on the search transformations bar, then select the two datasets you want to merge, the type of join, then select what column are you gonna use to be the key column, and then just use the execute button. After all that you can merge data into a new dataset or just directly edit that one.

```
In [3]: import pandas as pd; import numpy as np
df.replace('?', '')
df = df.fillna('')

df
```

607 rows × 12 columns - preview [All columns]

	Unnamed: 0	work_year	experience_hr	employment	job_title	salary	salary_currency
0	0	2020	M	FT	Data Scientist	70000	EUR
1	1	2020	SF	FT	Machine Learner	260000	USD
2	2	2020	SE	FT	Big Data Engineer	85000	GBP
3	3	2020	M	FT	Product Data An	200000	USD
4	4	2020	SE	FT	Machine Learnin	150000	USD
5	5	2020	EN	FT	Data Analyst	72000	USD
6	6	2020	SE	FT	Lead Data Scien	190000	USD
7	7	2020	M	FT	Data Scientis	1100000	HUF
8	8	2020	M	FT	Business Data A	120000	USD
9	9	2020	EN	FT	Lead Data Scien	190000	INR

Join Dataframe on Bamboolib

3. Dropping Data

In data preparation, it's really common for us to encounter some situation when we don't really need the data or column on the dataset that we use. Especially after you merge your dataset. Bamboolib and Mito provide functionalities that simplify the process of dropping data based on specific criteria.

In Bamboolib you can do it easily, you just need to search the column that you are going to drop in the search transformation bar, select drop function, choose what column that you want to drop, and then click the magical execute button.

```
In [3]: import pandas as pd; import numpy as np
df.replace('?', '')
df = df.fillna('')

df
```

607 rows × 12 columns - preview [All columns]

	Unnamed: 0	work_year	experience_hr	employment	job_title	salary	salary_currency
16	16	2020	M	FT	Data Analyst	80000	USD
17	17	2020	EN	FT	Data Engineer	440000	JPY
18	18	2020	SE	FT	Big Data Engineer	100000	EUR
19	19	2020	EN	FT	Data Science Co.	623000	INR
20	20	2020	M	FT	Lead Data Engin	50000	USD
21	21	2020	M	FT	Machine Learni	290000	CNY
22	22	2020	SE	FT	Product Data An	400000	INR
23	23	2020	M	FT	Data Engineer	60000	EUR
24	24	2020	M	FT	BI Data Analyst	98000	USD
					Lead Data Scien	115000	USD

Drop Column on Bamboolib

In Mito dropping data is another simple thing that you can do. You can just select the column on the UI, and then click DEL COL on the toolbar, and then you can simply watch the column vanish from your dataset.

The screenshot shows a data editor interface with a toolbar at the top and a table below. The table has 13 rows and 12 columns. The columns are labeled: Unnamed: 0, work_year, experience_level, employment_type, job_title, salary, salary_currency, and salary. The salary column contains numerical values like 70,000, 260,000, etc., and the salary_currency column contains currency codes like EUR, USD, GBP, etc. A dropdown menu is open over the salary column, with one option being 'Drop Column'.

Drop Column on Mito

See it's so easy to use these libs, especially when you want to delete a lot of columns on the dataset, imagine how much time you are going to save on your work.

4. Data Transformation

Data transformation is one of the steps that we are always going to do when we are going to use some dataset. It involves converting data into a suitable format or structure for analysis such as reshaping, renaming, or encoding variables. With Bamboolib and Mito you can do it without any hassle. You can do all of that directly on their UI without even using any code, and if you need the code of your data transformation, you can even generate it with these libs and copy it into another code cell.

job_title | Data Scientist

	Unnamed: 0	work_year	experience_lev	employment_ty	job_title	salary	salary_currency	salary.
0	0	2,020	MI	FT	Data Scientist	70,000	EUR	
1	1	2,020	SE	FT	Machine Learning Sc	260,000	USD	
2	2	2,020	SE	FT	Big Data Engineer	85,000	GBP	
3	3	2,020	MI	FT	Product Data Analyst	20,000	USD	
4	4	2,020	SE	FT	Machine Learning En	150,000	USD	
5	5	2,020	EN	FT	Data Analyst	72,000	USD	
6	6	2,020	SE	FT	Lead Data Scientist	190,000	USD	
7	7	2,020	MI	FT	Data Scientist	11,000,000	HUF	
8	8	2,020	MI	FT	Business Data Analy	135,000	USD	
9	9	2,020	SE	FT	Lead Data Engineer	125,000	USD	
10	10	2,020	EN	FT	Data Scientist	45,000	EUR	
11	11	2,020	MI	FT	Data Scientist	3,000,000	INR	
12	12	2,020	EN	FT	Data Scientist	35,000	EUR	
13	13	2,020	MI	FT	Lead Data Analyst	65,000	HUF	

(607 rows, 12 cols)

Change to Lowercase on Mito (string transformation)

df

Show static HTML

History Export

Create plot Explore DataFrame

607 rows x 12 columns - preview [All columns]

	Unnamed: 0	work_year	experience_lev	employment_ty	job_title	salary	salary_currency	salary.
0	0	2020	MI	FT	Data Scientist	70000	EUR	
1	1	2020	SE	FT	Machine Learnin	260000	USD	
2	2	2020	SE	FT	Big Data Enginee	85000	GBP	
3	3	2020	MI	FT	Product Data An	20000	USD	
4	4	2020	SE	FT	Machine Learnin	150000	USD	
5	5	2020	EN	FT	Data Analyst	72000	USD	
6	6	2020	SE	FT	Lead Data Scienti	190000	USD	
7	7	2020	MI	FT	Data Scientist	11000000	HUF	
8	8	2020	MI	FT	Business Data A	135000	USD	
9	9	2020	SE	FT	Lead Data Enginee	125000	USD	

Copy code Show code

Change to Lowercase on Bamboolib (string transformation)

5. Handling Missing Values

Missing values in data can have a significant impact on analysis results. Bamboolib and Mito provide methods to handle missing values, including imputation techniques and options to drop or fill missing values. These libraries offer flexible approaches to address missing data effectively.

Fill Missing Value on Mito (by Mito)

Fill Missing Value on Bamboolib

Data Visualization

Are you ready to revolutionize your data visualization game? Look no further than Bamboolib and Mito, two game-changing libraries that will take your data exploration to new heights.

Imagine effortlessly creating stunning visualizations that captivate your audience and reveal the hidden stories within your data. With Bamboolib and Mito, you can unleash your creativity and transform raw numbers into compelling visual narratives.

Both libraries offer a treasure trove of charts, graphs, and plots, allowing you to effortlessly bring your data to life. From basic bar charts to intricate network diagrams, the visualization possibilities are endless. And the best part? You don't need to be a coding wizard to create stunning visuals. Bamboolib and Mito provide

intuitive interfaces that make data visualization a breeze for everyone, regardless of their technical expertise.

Data visualization is not just about pretty pictures; it's about understanding your data on a deeper level. Bamboolib and Mito empower you to uncover trends, patterns, and correlations that might otherwise go unnoticed. Explore your data visually, spot outliers, and make data-driven decisions with confidence.

Whether you're a seasoned data scientist or just starting your journey, Bamboolib and Mito are here to make your data visualization dreams a reality. Say goodbye to tedious coding and hello to effortless visual storytelling.

From our exploring on these two libs, here are some example that you can do on making data visualization on Bamboolib and Mito.

In [52]:

```
import pandas as pd; import numpy as np
# Step: Replace missing values
df = df.fillna('')
```

df

Show static HTML

History Export

Search actions

or Create plot Explore DataFrame

607 rows x 12 columns - preview [All columns]

	Unnamed: 0	work_year	experience_lev	employment_ty	job_title	salary	salary_currency	salary_in_usd	employment
0	0	2020	MI	FT	Data Scientist	70000	EUR	79,833	DE
1	1	2020	SE	FT	Machine Learning Sc	260000	USD	260,000	JP
2	2	2020	SE	FT	Big Data Engineer	85000	GBP	109,024	GB
3	3	2020	MI	FT	Product Data An	20000	USD	20,000	HN
4	4	2020	SE	FT	Machine Learn	150000	USD	150,000	US
5	5	2020	EN	FT	Data Analyst	72000	USD	72,000	US
6	6	2020	SE	FT	Lead Data Scientis	190000	USD	190,000	US
7	7	2020	MI	FT	Data Scientist	11000000	HUF	11000000	HU
8	8	2020	MI	FT	Business Data A	135000	USD	135,000	US
9	9	2020	SE	FT	Lead Data Engin	125000	USD	125,000	NZ

Copy code Show code

Data visualization on Bamboolib

Edit Dataframes Columns Rows Graphs Format Code View Help

Get Support Upgrade to Mito Pro

Undo Redo Clear Import Export Add Col Del Col Dtype Less More Number Pivot Graph AI Steps Fullscreen

work_year | work_year

	work_year	experience_lev	employment_ty	job_title	salary	salary_currency	salary_in_usd	employment
0	2,020	MI	FT	Data Scientist	70,000	EUR	79,833	DE
1	2,020	SE	FT	Machine Learning Sc	260,000	USD	260,000	JP
2	2,020	SE	FT	Big Data Engineer	85,000	GBP	109,024	GB
3	2,020	MI	FT	Product Data Analyst	20,000	USD	20,000	HN
4	2,020	SE	FT	Machine Learning En	150,000	USD	150,000	US
5	2,020	EN	FT	Data Analyst	72,000	USD	72,000	US
6	2,020	SE	FT	Lead Data Scientist	190,000	USD	190,000	US
7	2,020	MI	FT	Data Scientist	110,000,000	HUF	35,735	HU
8	2,020	MI	FT	Business Data Analyst	135,000	USD	135,000	US
9	2,020	SE	FT	Lead Data Engineer	125,000	USD	125,000	NZ
10	2,020	EN	FT	Data Scientist	45,000	EUR	51,321	FR
11	2,020	MI	FT	Data Scientist	3,000,000	INR	40,481	IN
12	2,020	EN	FT	Data Scientist	35,000	EUR	39,916	FR
13	2,020	EN	FT	Lead Data Analyst	87,000	EUR	87,000	FR

df1

(607 rows, 11 cols)

Data visualization on Mito

Comparing the Two Libraries

Here comes the final section of this amateurish article. Head-to-Head Showdown: Bamboolib vs. Mito — Which Library Will Reign Supreme in Data Processing?. Here are some comparison results that we can get after we explore these two libraries.

Bamboolib

- + Point and Click interface
- + Have OneHotEncoder and LabelEncoder
- + Has more option for graph (ScatterPlot3D, LinePlot3D)
- + Have search bar

Mito

- + Spreadsheet like interface
- + Have a toolbar and menu bar
- + Have AI

Final Thoughts

Choosing between Bamboolib and Mito is no easy task. Both libraries offer exceptional features and functionalities that can supercharge your data processing endeavors. Bamboolib boasts a user-friendly interface and intuitive workflows, perfect for those seeking simplicity without compromising power. On the other hand, Mito flexes its muscles with its robust capabilities and advanced data manipulation options, catering to the needs of seasoned data scientists.

Ultimately, the choice comes down to your personal preferences and the specific requirements of your data projects. Whether you opt for Bamboolib or Mito, rest

assured that you'll be equipped with a formidable toolset to conquer the world of data processing.

So, are you ready to take your data processing game to the next level?.

Written by: Evan Aprillio Bursiano, Muhammad Hanif Suyuthi, Satriya Fauzan Adhim.

REFERENCES

Mito Docs

Mito: the fastest way to do Python data analytics, simply by editing a spreadsheet.

docs.trymito.io

Welcome - we're joining forces with Databricks

Edit description

docs.bamboolib.8080labs.com

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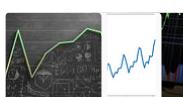
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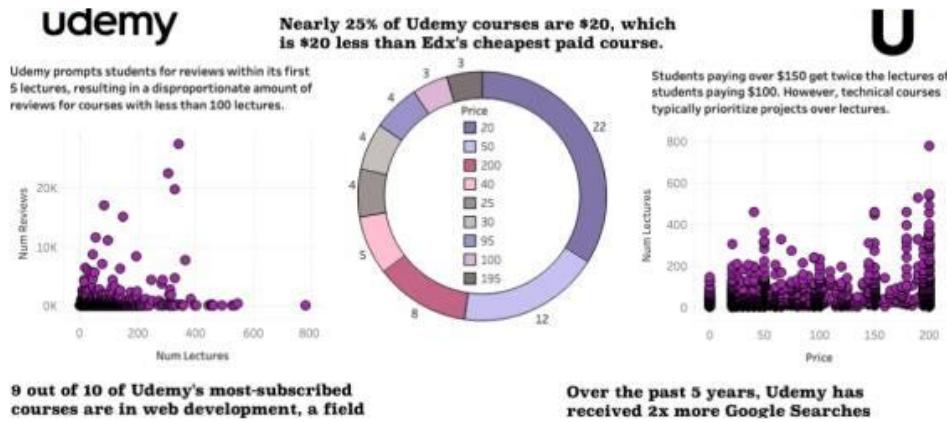
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