Summary

Data cleaning is the process of data manipulating so that the data will be properly analyzed. Data cleaning involves handling duplicated data, handling missing data, and editing data.

Duplicates

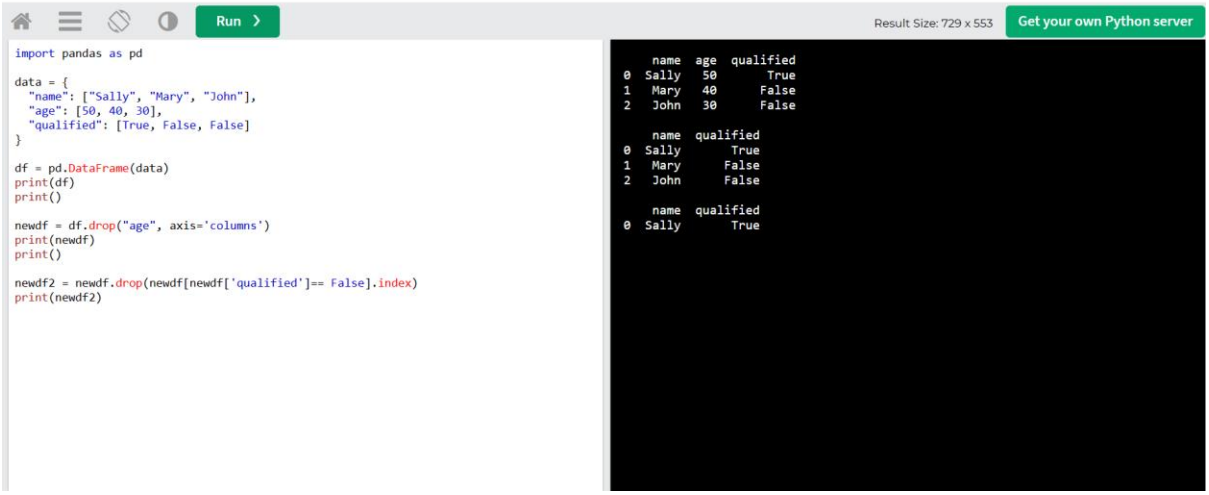
Duplicated data makes our data unreliable and is often removed via df.drop_duplicates().

PANDAS DROP_DUPLICATES DELETES DUPLICATE ROWS FROM A DATAFRAME

name	region	sales	expense
William	East	50000	42000
~~William~~	~~East~~	~~50000~~	~~42000~~
Emma	North	52000	43000
Emma	West	52000	43000
Anika	East	65000	44000
Anika	East	72000	53000

Irrelevant / unwanted data

There may be data that is not relevant or that you do not want to include in your analysis. Getting rid of unwanted data may be done using df.drop(columns = []) or selecting data that you want to drop by boolean indexing.



Missing data

There are multiple ways to deal with missing data. Getting rid of rows that contain missing data is an option to be considered when there isn't a lot of missing values. Filling in the missing values may be another option if reliable predictions could be made from the data that isn't missing. Dropping a column is also an option if most of the column consists of missing values. Some important methods are fillna() , dropna(), ffill(), bfill(), replace()

Editing data

Some data must have the same format or a specific dtype for analysis to be done properly. Some popular methods for doing that are: apply(), replace() , astype(),str.strip(),str,split()…