

Python: DataFrames

A dataframe pandas is a two-dimensional data structure that can store data of different types and their corresponding labels. Dataframes are similar to SQL tables or Excel tables.

Load into a dataframe the fx. nba.csv with NBA player data available at:

## https://media.geeksforgeeks.org/wp-content/uploads/nba.csv

- 1. View the loaded data.
- 2. Get information about the dataframe, such as the number of rows, number of columns, and column names.
- 3. View only the variable names in this dataframe.
- 4. What is the size of the data set?
- 5. Get statistics from the dataframe's numerical columns
- **6.** View the first rows of the data set and then the last rows.
- 7. Select the College column
- 8. Select columns Name, Position, College, and rows 15 to 20
- 9. View all players from Position = 'PF'.
- **10.** View all distinct values from the Team column, and their numbers.
- 11. View players from Team = Los Angeles Lakers (all columns except Team).
- 12. View the data in reverse alphabetical order of College and decreasing Age.
- **13.** View the data in descending order of salary.
- 14. Make a salary histogram.
- 15. Make an age boxplot.
- 16. Make a salary vs. age plot.
- 17. View the age and average salary of the players.
- **18.** Present players for whom the age is lower than average and the salary is higher than average.
- **19.** Get the salary variable statistics grouped by team.
- 20. Make a boxplot of salary vs. Team
- 21. Get the average salary per position



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- 22. Make a boxplot of salary vs. Position
- 23. Get the statistics of the Age variable grouped by Position
- 24. Count number of Nas per column
- 25. Remove line with Name, Team, Number, Position, Age, Height, Weight: NaN
- 26. Presents for each dateFrame column the number of NAs and their percentage
- 27. Fill in College column NaN values with 'no College'
- 28. View the lines with Salary NaN
- 29. Fill in the salary NaN values with the average salary value of the respective Team/Position.
- 30. Count the number of Nas throughout all the dataframe
- **31.** Save the dataframe in a csv file and an excel file.