

SESSION PLAN

Session Name

Data Wrangling with Pandas

Learning Outcomes

- Loading data into Pandas dataframe.
- Perform common data manipulation tasks
- Use functions such as groupby, merge, and pivot tables effectively.

Prerequisites for the Student

- Data Wrangling with Pandas - Go through the concept and solve the tasks and assessments.

Student Activities

- Discuss with the Mentor what you have learned.
- Overview of Data Wrangling with Pandas
 - Conditional filtering
 - Apply functions
 - Groupby and sorting
 - Pivot tables
 - Merging dataframe
 - Importance of `pd.reset_index()`
- Create a dictionary of the data given below and save it as `ipl_data`.
 - [Import Pandas Library](#)
 - `{'Team': ['Riders', 'Riders', 'Devils', 'Devils', 'Kings', 'kings', 'Kings', 'Kings', 'Riders', 'Royals', 'Royals', 'Riders'], 'Rank': [1, 2, 2, 3, 3, 4, 1, 1, 2, 4, 1, 2], 'Year': [2014, 2015, 2014, 2015, 2014, 2015, 2016, 2017, 2016, 2014, 2015, 2017], 'Points': [876, 789, 863, 673, 741, 812, 756, 788, 694, 701, 804, 690]}`
 - [Convert dictionary into DataFrame and save it in df.](#)
 - [Apply groupby on year and save it as grouped.](#)
 - [Print 2014 data by using get_group on grouped](#)
- Practice problems on Conditional Filtering, GroupBy, Pivot table, Concat, Merge and Join,
 - Refer the GitHub repo for problems
- Quiz on Data Wrangling with Pandas.
- Code Along Session (IPL Dataset)
- Questions and Discussion on doubts - AMA

Next Session

- Concept - Data Visualization using Matplotlib & Version Control using Git
- Key topics to be highlighted - highlight where they would need to spend more time and importance w.r.t Data Science.
 - Terminologies in matplotlib
 - Different types of plots
 - Plot customizations
 - Visualization with Pandas
 - What is Version Control?