Session Plan Day 5 — Data Wrangling with Pandas

Learning Outcomes

- **Data Wrangling with Pandas**
- **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**
- **Questions and Discussion on doubts - AMA**

Next Session Preview

- **Concept - Visualize data using Matplotlib**
- **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