# 📊 Data Analyst Learning Checklist

## Foundations of Data Analysis 🧠

* ☐ Research “Day in the Life of a Data Analyst” (YouTube, blogs)
* ☐ Learn data types (structured/unstructured), file formats (CSV, JSON)
* ☐ Install tools: Excel/Google Sheets, Anaconda (Python), SQL environment (SQLite or online playgrounds)

## Excel + SQL Basics 📊 ([SQL](https://leetcode.com/studyplan/top-sql-50/)/[Excel](https://www.youtube.com/results?search_query=excel))

* ☐ Excel: Learn VLOOKUP / XLOOKUP
* ☐ Excel: Use Pivot Tables and Charts
* ☐ Excel: Clean data (remove duplicates, sort/filter, conditional formatting)
* ☐ Excel: Practice with sample datasets (e.g. sales, finance, HR)
* ☐ SQL: SELECT, WHERE, ORDER BY, LIMIT
* ☐ SQL: GROUP BY + HAVING
* ☐ SQL: JOINs (INNER, LEFT)
* ☐ SQL: Practice via LeetCode SQL or Mode Analytics tutorials (50questions)

## Python for Data Analysis 🐍 ([Python For DA](https://github.com/AlexTheAnalyst/PandasYouTubeSeries/blob/main/Pandas%20101%20-%20Data%20Cleaning%20in%20Pandas.ipynb))

* ☐ Learn Python basics (loops, functions, lists, pandas)
* ☐ Use pandas to read, clean, aggregate datasets
* ☐ Create basic visualizations (line, bar, scatter) using matplotlib or seaborn
* ☐ Mini-project: Analyze a dataset ([Medium](https://medium.com/@ivannfalah/exercise-2-python-for-data-analysis-with-google-colab-b3df60f4d3b6)) and derive insights

## Dashboarding + Portfolio 📁

* ☐ Learn Power BI or Tableau fundamentals via online tutorials
* ☐ Build an interactive dashboard with filters, KPIs, charts
* ☐ Compile two projects: Excel/SQL analysis and Python analysis + dashboard
* ☐ Update resume with technical tools: Excel, SQL, Python, Power BI/Tableau
* ☐ Update LinkedIn headline: 'Aspiring Data Analyst | SQL • Excel • Python • Power BI'