**Data Analysis**

**1.Excel**

* Basic formulas: SUM, AVERAGE, MEAN, MEDIAN, SUMPRODUCT, CONCATENATE
* Advance formulas: VLOOKUP, INDEX, MATCH, IF, COUNTIF, SUMIF
* Remove duplicates and conditional formatting.
* Charts, filters, sort, and slicers
* Pivot tables and pivot charts
* Ignore VBA, Macros, etc.

**2.Math and Statistics**

* Basic Math: Arithmetic, Weighted average, Cumulative sum, Percentile
* Basic Statistics: Mean, Median, Mode, Standard deviation, Normal distribution.

**3.SQL**

* **Basic Queries:** SELECT, WHERE, DISTINCT, LIKE, BETWEEN, ORDER BY, LIMIT, GROUP BY, HAVING CLAUSE, INSERT, UPDATE, ALTER, IMPORT, Datatypes.
* **Advance Queries:** Date time function, Window function, Sub query, Case statement CTE, very optimisation
* **JOINS:** inner, Outer, left, right.

**4-BI Tools (Power BI or Tableau)**

**Note:** if you are a beginner, my personal suggestion will be to learn Power BI instead of Tableau- as it high in demand and feels like MS Excel.

**5. Soft Skills**

* Communication skill,
* Analytica skill,
* Problem solving skill,
* Storytelling,
* Business understanding,

**6.Programming- Python**

Note: if you are a beginner, my personal suggestion will be to learn Python instead of R- 0s its high in

demand and beginner friendly. Also, it will help to solve Machine Learning problems.

As 0 beginner learn programming language to an intermediate level, don't waste time to master it.

* **Topics in Python:**
* Variables, Data types, Lists, Tuples, Dictionaries, Sets, Conditional expressions, Modules,
* Functions, Operators, if statements, Loops, class, and objects.
* Python libraries: Pandas and Matplotlib.
* Pandas: read/write csv, excel and JSON files, work with data frame, data manipulation and analysis: Group by, Concatenate, Merge
* Matplotlib: creating static, animated, and interactive visualizations in Python.