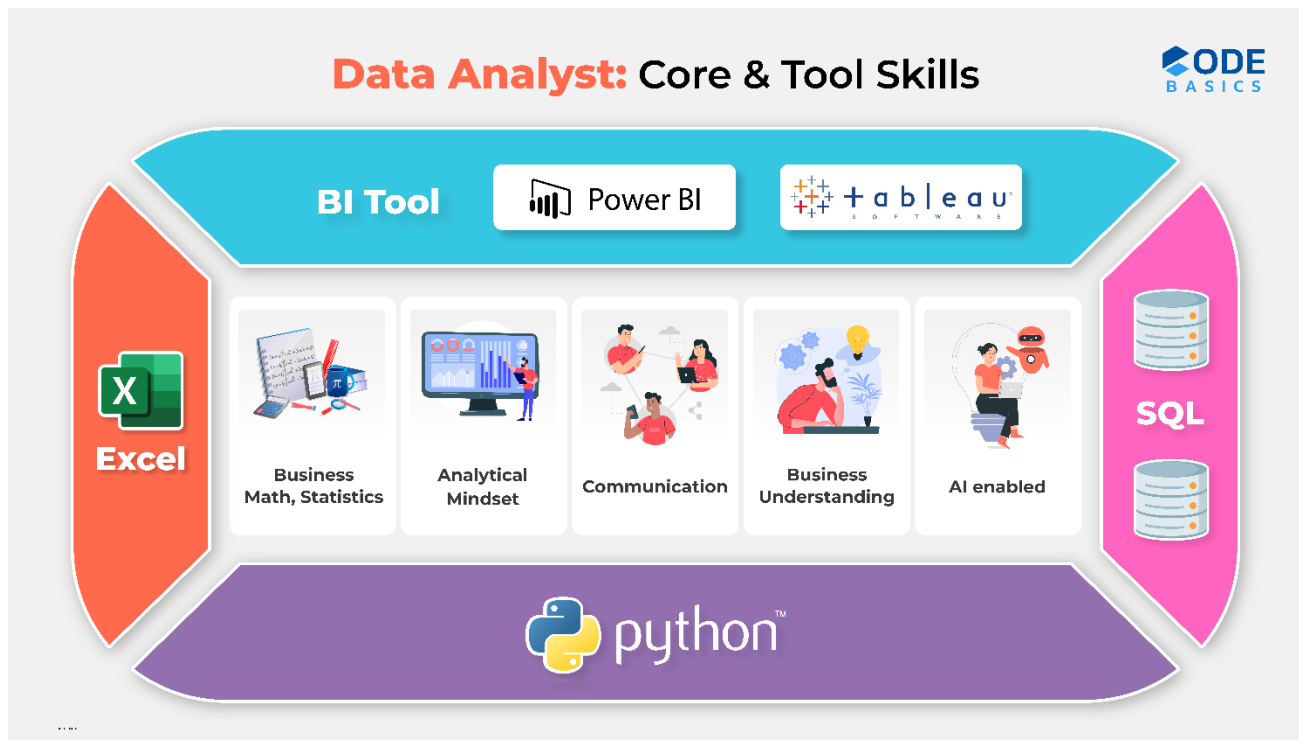


Data Analyst Roadmap for Beginners 2024

Following is the roadmap to learn **Data Analyst** skills for a total beginner (**no coding** or **computer science background** needed). It includes FREE learning resources for technical skills (or tool skills) + soft (or core) skills + Practice + Showcasing your work to get interview calls + Cracking Interview.

Total Duration: **3 Months**

1.5 hours in Tool Skills + **1 hour** in Core Skills + **1.5 hours** in practice = **4 hours** study Every Day.



Week 0: Do Proper Research and protect yourself from SCAMS.

Unfortunately, a lot of systematic scams are happening in ed tech, especially in the data field where aspirants are provided with false promises like a 100% job guarantee or trapped into "Masterclasses" which are nothing but sales pitches to upsell their low-grade courses at exorbitant prices. You need to do complete research about the market and mentors before starting your journey. Providing you the links to a few posts that we have made in this regard which will support your research.

Even though these posts are **NOT** sufficient, do your additional research.

- <https://bit.ly/4at9Jaw>
- <https://bit.ly/477IOOs>
- <https://bit.ly/3GPD7dp>

Week 1 and 2: Excel and Business Math/Statistics + LinkedIn Profile

- **Excel**
 - Topics
 - Basic Formulas: SUM, AVERAGE, PRODUCT, MEAN, MEDIAN, IF, SUMIF
 - Advanced Formulas: VLOOKUP, MATCH, INDEX
 - Pivot Tables
 - Basic Charting, Filters, Sorting
 - Power Query
 - Ignore VBA, Macros etc.
 - Learning Resources
 - Track A
 - Business math using Excel: <https://youtu.be/npgbl8KYvN8>
 - Google templates gallery for personal finance: <https://docs.google.com/spreadsheets/u/0/?ftv=1>
 - Budget planner: <https://www.vertex42.com/ExcelTemplates/budgets.html>
 - Chandoo's YouTube channel: https://www.youtube.com/@chandoo_

- Track B
 - Codebasics Excel course: <https://codebasics.io/courses/excel-mother-of-business-intelligence/>

- **Business Math and Statistics**

- Topics:
 - Business Math
 - Arithmetic, Percentages
 - YoY (Year over year) Growth or Decline: When Apple grew from 50 to 60 million, what is the % growth? Answer: 20 %
 - If below is the cell phone sales breakdown, what is the % Market Share of iPhone? Answer: 42.10%
 - iPhone - 40 billion
 - Samsun Galaxy -20 billion
 - Google Pixel – 5 billion
 - Others – 30 billion
 - Basic Statistics
 - Mean, Median, Standard Deviation, Bell Curve, Percentile
- Learning Resources
 - Business math: <https://youtu.be/npgbl8KYvN8>
 - Business math (Hindi): https://youtu.be/vtrbOri8lag?si=DNmHRAbQCof5N_6H
 - <https://www.khanacademy.org/>
 - Intro to percentage <https://www.khanacademy.org/math/pre-algebra/xb4832e56:percentages#xb4832e56:intro-to-percents>
 - <https://www.mathsisfun.com/>

- **LinkedIn - Core Skill**

- ☐ Create a professional-looking LinkedIn profile.
 - Have a clear profile picture and banner image.
 - Add tags such as: Open to work etc.
- ☐ Use this LinkedIn Checklist to create a profile: [Click here.](#)

- **Motivation**

- Fresher BCom to Data Analyst Podcast -> <https://bit.ly/46VtfJK>

- **Assignment**

(Use the assignment tracker: <https://bit.ly/4avdUmo>)

- **Upskilling**

- ☐ Create your own budget sheet based on your monthly expenses.

- **Showing your work**

- ☐ Post the template of your budget sheet on LinkedIn and share your learning experience. (Tag Codebasics, Dhaval Patel and Hemanand Vadivel with the hashtag #daroadmap24 so we can engage to increase your visibility)

💡 Insight: Only 60 among 100 aspirants continue further. You be one among them 😊

Week 3, 4, 5: BI tools (Power BI or Tableau) + LinkedIn Engagement + Business Fundamentals

- **Power BI**

- Topics

- Connecting to different data sources
 - Data transformation in Power Query
 - Creating metrics using DAX & Data Modelling
 - Creating visuals
 - Dashboarding
 - Publishing to Power BI Service

- Learning Resources

- Track A (Project Based Learning)
 - Sales insights Power BI project: <https://bit.ly/3C1WKgA>
 - Hospitality Insights Project: <https://bit.ly/3DPBcoj>
 - Cricket T20 Project: <https://bit.ly/3j5I7ID>
 - HR data analytics project: <https://bit.ly/41vxcUz>

- YT Channels to Follow.
 - Curbal
 - Guy in a cube
 - How to Power BI
- Track B
 - My Power BI course that can make you job-ready: <https://codebasics.io/courses/power-bi-data-analysis-with-end-to-end-project>

- **Tableau**

- Codebasics sales insights project: <http://bit.ly/3YQSBFV>
- HINDI codebasics sales insights project: <https://bit.ly/3hZXUCb>

- Should I learn Power BI or Tableau?

- If someone asks me to pick between Power BI and Tableau, I always suggest Power BI as it is growing in popularity as compared to Tableau.
- This Gartner research shows Power BI is leading a BI game: [Check here.](#)

- **LinkedIn - Core Skill**

- Start following prominent data analytics influencers!
 - Hemanand Vadivel: <https://www.linkedin.com/in/hemvad/>
 - Injae Park: <https://www.linkedin.com/in/injae-park/>
 - Shashank Singh: <https://bit.ly/4apSnv7>
 - Raghavan P: <https://www.linkedin.com/in/raghavan-rp/>
 - Naveen S: <https://www.linkedin.com/in/naveen-s6/>
 - Alex the Analyst: <https://www.linkedin.com/in/alex-freberg/>
 - Munna Das: <https://www.linkedin.com/in/munnadas/>
- Increase engagement!
 - Start commenting meaningfully on data analytics and career-related posts
 - Helps network with others working in the industry build connections.
 - Learning and brainstorming opportunity

- **Business Fundamentals - Core Skill**

- Learn business concepts from ThinkSchool and other YT Case Studies
 - Example: How Amul beat competition using analytics:
<https://youtu.be/nnwqtZiYMxQ>
- Learn P&L fundamentals
 - There are many data analyst positions in finance department of any company and learning P&L is super important for this role
 - Resource: Investopedia
 - Power BI course for integrated business and tech learning.

- **Discord - Core Skill**

- Start asking questions and get help from the community. These post shows how to ask questions the right way:
 - <https://bit.ly/3l70Ebl>
 - <https://bit.ly/3tezRFi>

- **Motivation**

- Mom with career break to Data Analyst: <https://bit.ly/3MI2uRc>

- **Assignment**

Upskilling

- ☐ Do one unguided project from this list: <https://bit.ly/43v4Ni2>
- ☐ Read and understand P&L statement of at least 3 public companies

Show your work

- ☐ Make a post on the unguided project on LinkedIn:

Example: <https://bit.ly/4737ckl>

(Tag Codebasics, Dhaval Patel and Hemanand Vadivel with the hashtag #daroadmap24 so we can engage to increase your visibility)

- ☐ Make sure you are making at least 1 meaningful comment every day!

💡 Insight: Only 40 among 100 aspirants continue further. You be one among them 😊

Week 6, 7 and 8: SQL + ATS Resume + Project Portfolio

- **SQL**

- Topics
 - Basics of relational databases
 - Basic Queries: SELECT, WHERE LIKE, DISTINCT, BETWEEN, GROUP BY, ORDER BY
 - Advanced Queries: CTE, Subqueries, Window Functions
 - Joins: Left, Right, Inner, Full
 - Stored procedures and functions
 - No need to learn database creation, indexes, triggers etc. as those things are rarely used by data analysts.
- Learning Resources
 - Track A
 - Free SQL Tutorial with exercises: <https://www.youtube.com/watch?v=Rm0xH2Vpfi0>
 - Khan academy: <https://bit.ly/3WFku20>
 - <https://www.w3schools.com/sql/>
 - <https://sqlbolt.com/>
 - Track B
 - SQL course for data professionals: <https://codebasics.io/courses/sql-beginner-to-advanced-for-data-professionals>

- **Presentation - Core Skills**

- Learn presentation skills
 - Death by PowerPoint: <https://www.youtube.com/watch?v=lwpi1Lm6dFo>

- **ATS Resume Preparation**

- Resumes are dying but not dead yet. Focus more on online presence.
- Here is the resume tips video along with some templates you can use for your data analyst resume: <https://www.youtube.com/watch?v=buQSI8NLOmw>

- Use this checklist to ensure you have the right ATS Resume: [Check here.](#)

- **Portfolio Building Resources:**

You need a portfolio website in 2024. You can build your portfolio by using these free resources.

- [Novypro](#)
 - Helpful to add Power BI and Excel Projects.
- [Linktree](#)
 - Helpful to add multiple links in one page.
- [GitHub](#)
 - Another way to add projects and showcase it to hiring managers.
- Codebasics Portfolio Website
 - This is part of Codebasics Data Analyst Bootcamp.
 - Example Portfolios: <https://codebasics.io/portfolio/>

- **Assignment**

Upskilling

- ☐ Participate in SQL resume project challenge: <https://bit.ly/40x3Yef>

Showing your work

- ☐ Add a link of your projects in your resume and LinkedIn.

(Tag Codebasics, Dhaval Patel and Hemanand Vadivel with the hashtag #daroadmap24 so we can engage to increase your visibility)

💡 Insight: Only 30 among 100 aspirants continue further. You be one among them 😊

Week 9 & 10: Python and Pandas + Leveraging AI Tools + More Domain Knowledge

- **Python**

- Topics
 - Variables, Lists, Dictionaries, Tuples, If condition, for loops, functions, modules, file handling, classes and objects, exception handling
- Learning Resources
 - Track A
 - Codebasics python tutorials (first 16) - <https://bit.ly/3X6CCC7>
 - Codebasics python HINDI tutorials - <https://bit.ly/3vmXrgw>
 - Make sure to work on exercises in these folders:
<https://github.com/codebasics/py/tree/master/Basics/Exercise>
 - Track B
 - Python course: <https://codebasics.io/courses/python-for-beginner-and-intermediate-learners>

- **Pandas**

- Topics
 - Dataframe basics
 - Reading data from csv/excel files
 - Handling missing data
 - Group by, Concat, Merge
- Resources
 - Codebasics pandas playlist
(first 9): <https://www.youtube.com/playlist?list=PLeo1K3hjS3uuASpe-1LjfG5f14Bnozjwy>
 - Kaggle datasets: <https://www.kaggle.com/datasets>
 - Kaggle notebooks: <https://www.kaggle.com/notebooks>

- **Project Management**

- Scrum: <https://scrumtrainingseries.com/>
- Kanban: <https://youtu.be/jf0tltb9lx0>
- Tools: JIRA, Notion

- **Leveraging ChatGPT**

- 4 Technical Areas where you can leverage AI:

- <https://bit.ly/3RSsf53>

- **Leveraging Domain Knowledge**

- Build domain knowledge to understand how to use business terms along with numbers

15 BLOCKS OF DOMAIN KNOWLEDGE FOR DATA ASPIRANTS

10 min

1. BSNL Story

15 min

2. Amul's Pandemic Strategy

12 min

3. Data culture in P & G

10 min

4. Bad Loans at Banks

15 min

5. Burger King's Strategy

10 min

6. AB InBev Automation

45 min

7. Data Career in Insurance

15 min

8. Ikea Success Story

10 min

9. How PwC Uses Analytics

45 min

10. Data Science at HealthCare

15 min

11. Dashboard in local business

10 min

12. How Walmart Uses Analytics

45 min

13. Data Literacy at Starbucks

15 min

14. Efficiency Scoring in Business

120 min

15. Hospitality Insights w/ Power BI

All Links:

1. BSNL Story -> [Link](#)
2. Amul's pandemic strategy -> [Link](#)
3. P & G data culture -> [Link](#)
4. Bad loans at Banks -> [Link](#)
5. Burger King's Strategy -> [Link](#)
6. AB InBev Automation -> [Link](#)

7. Data Career in Insurance Industry -> [Link](#)

8. Ikea Case Study -> [Link](#)

9. PwC using Analytics -> [Link](#)

10. Data science at health care -> [Link](#)

11. Dashboard in local business -> [Link](#)

12. Walmart Using Power BI -> [Link](#)

13. Data Literacy at Starbucks -> [Link](#)

14. Efficiency Scoring in Business -> [Link](#)

15. Hospitality Insights -> [Link](#)

- **Assignment**

- ☐ Make a LinkedIn project post with a video presentation.

- Example post: <https://bit.ly/47WbRG9>

- (Tag Codebasics, Dhaval Patel and Hemanand Vadivel with the hashtag #daroadmap24 so we can engage to increase your visibility)

- Codebasics is promoting winning entries to employers. This way you can get interview calls. We do this in two ways.
 - We have a database of employers hiring for data analyst positions. We send the first 10 or 20 profiles based on their performance.
 - LinkedIn post by Dhaval (who has more than 150k followers and some of them are HR managers, data analytics senior managers): <https://bit.ly/3jnni5c>

- ☐ Discord: Start solving problems – this way you will be able to adopt to the problem-solving mindset

💡 Insight: Only 20 among 100 aspirants continue further. You be one among them 😊

Week 11, 12: Interview Prep & Practice

- **Interview Preparation**

- SQL interview preparation
 - Use this website: <https://datalemur.com/>
 - Also check this YouTube channel: <https://www.youtube.com/@techTFQ>
- Power BI and other tech interview preparation
 - Shashank's YouTube Channel: [LearnWidGiggs](#)

- **Practice Unguided Projects**

- [Provide Ad Hoc Insights to Management](#)
- [Provide Insights to the Executive Team/ Telecom Domain](#)
- [Solve a supply chain problem/ FMCG Domain](#)
- [Provide Insights to Marketing/ F&B Industry](#)

Explore the latest projects below 



CLICK HERE

- **Job Applications**

- Cold emailing: https://youtu.be/tD_sQSzq6uY
- Job referrals. Use LinkedIn as much as you can!
 - Follow this method to approach professionals: <https://bit.ly/3tezRFi>

- **Assignment**

- ☐ Participate in more resume project challenges.
 - These challenges help you improve technical skills, soft skills and business understanding.

(Tag Codebasics, Dhaval Patel and Hemanand Vadivel with the hashtag #daroadmap24 so we can engage to increase your visibility)

- ☐ Post your work at least once in 2 weeks on LinkedIn.
 - Example post: <https://bit.ly/3WMTgGK> (Naveen S)

- ☐ Make at least two posts per week.
- ☐ Make at least two comments per week.
- ☐ Discord server participation

💡 Insight: Only 5-10 among 100 aspirants reach until here and crack a job. You be one among them 😊

How can I get guided learning all at one place with practical job assistance?

If you need guided learning with a high quality learning resources along with practical job assistance then check this affordable data analyst bootcamp by codebasics:

<https://codebasics.io/bootcamps/data-analytics-bootcamp-with-practical-job-assistance>

The bootcamp will help you save time compared to free learning resources. Also, it will provide job, interview assistance along with a virtual internship 🙌👨🎓

Tips of effective learning

- **Spend less time in consuming information, more time in**
 - Digesting
 - Implementing
 - Sharing
- **Group learning**
 - Use **partner-and-group-finder** channel on codebasics discord server for group study and hold each other accountable for the progress of your study plan. Here is the discord server link: <https://discord.gg/r42Kbuk>

• Other Relevant Resources

How to land job as a fresher in 2024 (scientific approach): <https://bit.ly/41xuZYv>

All the best! 👍👍

