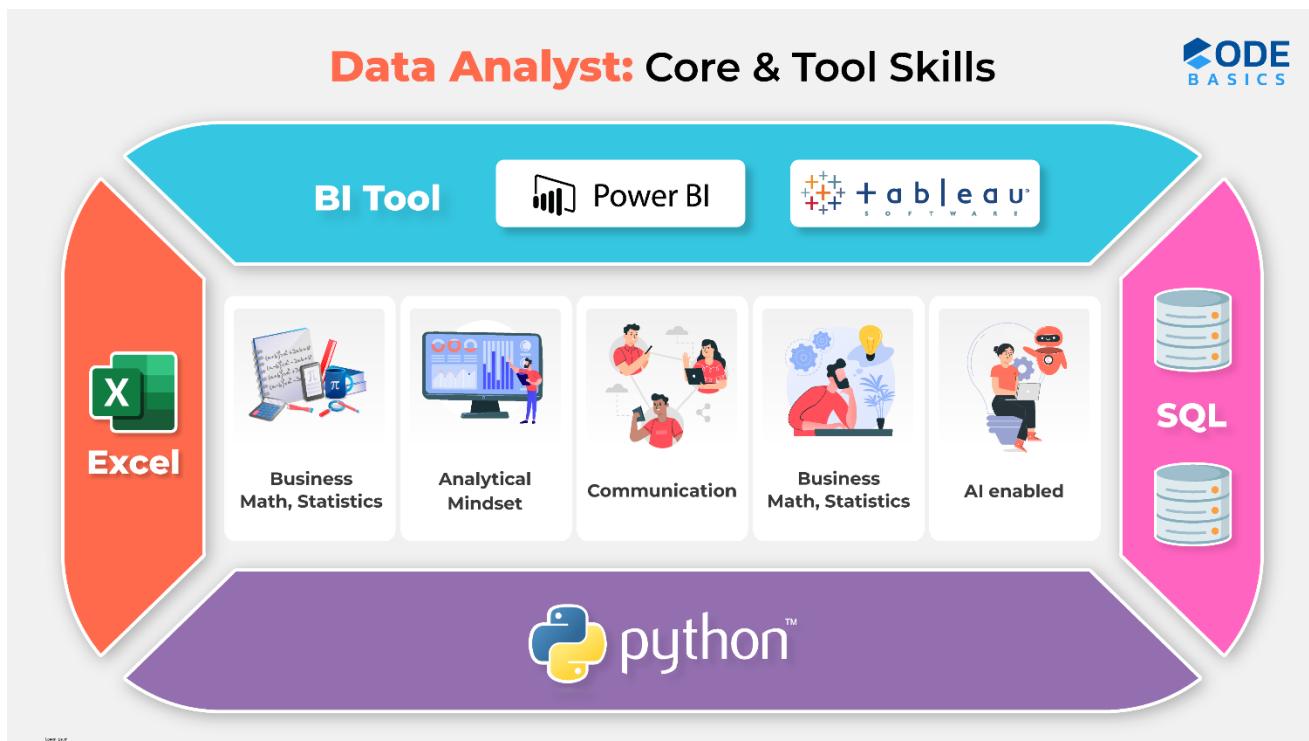


Data Analyst Roadmap for Beginners 2024

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/3I70Ebl>
 - <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.

- [Novapro](#)
 - 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**

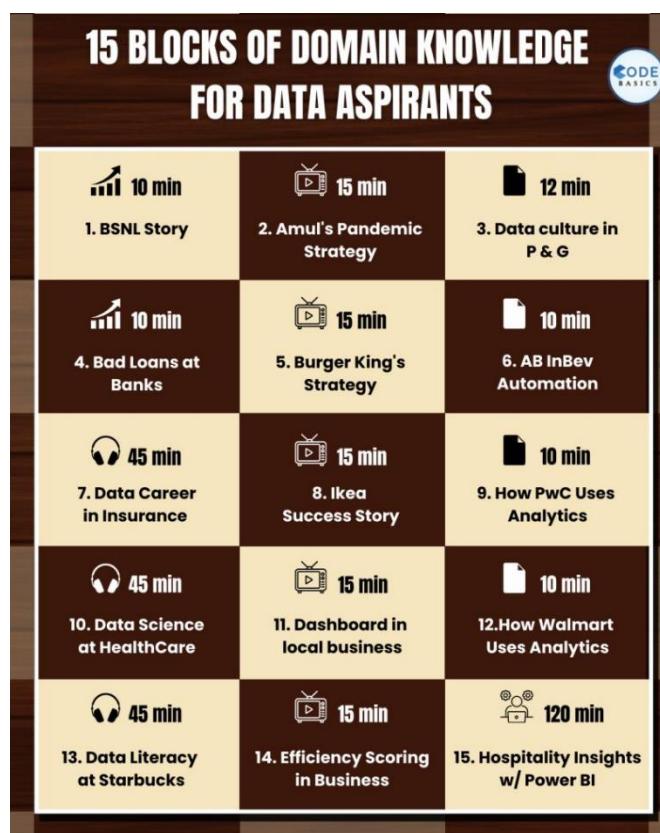
- Scrum: <https://scrumtrainingseries.com/>
- Kanban: <https://youtu.be/jf0tlbt9lx0>
- Tools: JIRA, Notion

- **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



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 



- **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! 

