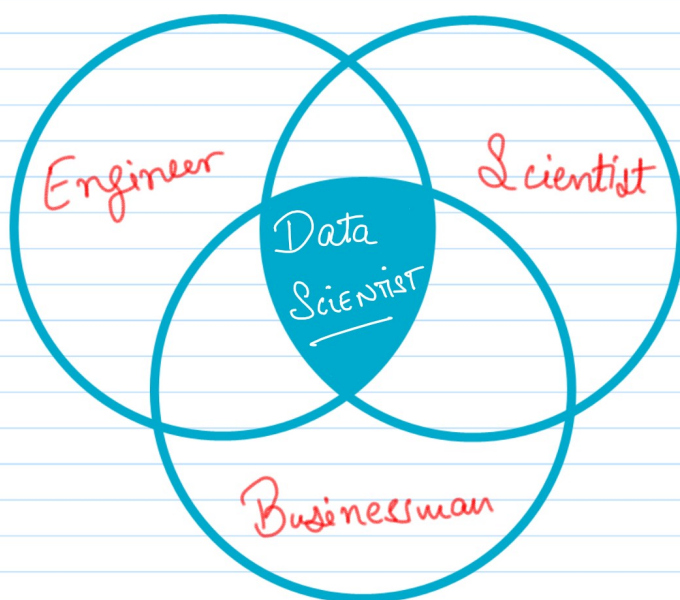


# DATA SCIENCE MINDSET



Thinking Like :



If you wanna become a Data Scientist & create a project that will get you hired as a DS then...

→ You need to start Thinking,  
like a Data Scientist.

Why think like a Scientist ?

- You are going to be used advanced analytics, looking for patterns and trying to understand WHY of it all in a systematic manner.
- Scientists use critical thinking to discover knowledge using the scientific method. Just like that you start by researching, that means investigating the problem, finding what's already been done, speaking with stakeholders to see what they know & determining what's already out there.

- You have to hypothesize & come up with some possible solutions or explanations for the problem.
- You are going to test the hypothesis using statistical methodology to either confirm or disapprove the hypothesis.
- Most importantly, you have to keep an open mind, question everything, challenge & scrutinize your assumptions.
- Suspend your beliefs & your focus on what the results are actually telling you.
- Remember, thinking like a scientist is about :
  - Being a critical thinker
  - Not making assumptions
  - Questioning & testing everything
  - Always answering with data.
  - Respect Empirical Evidence & accept results.

## Why think like an **ENGINEER**?

- As an engineer, you will write Code, Build systems, deploy models and automate things.
- You need to engineer systems that are :
 

- Reproducible	- Robust
- Testable	- Reliable
- Extensible	- Efficient
- Portable	
- You need to build systems to solve problems. Avoid Copy & Paste!

- As a Data Scientist, you will be writing statistical software. So you want to make sure you avoid lengthy scripts as much possible.
  - You need to organize your code into well documented software that could be automated if necessary.
  - You make the code **Scalable** and **Extensible**.
  - When you think like an engineer
    - ↳ You design systems that **Solve** the underlying **Problem**.
- This will make you much more powerful as a Data Sci.

" So use your projects as an opportunity to build the skill of designing solutions that solve underlying problem and aren't just a hacked together solution. "

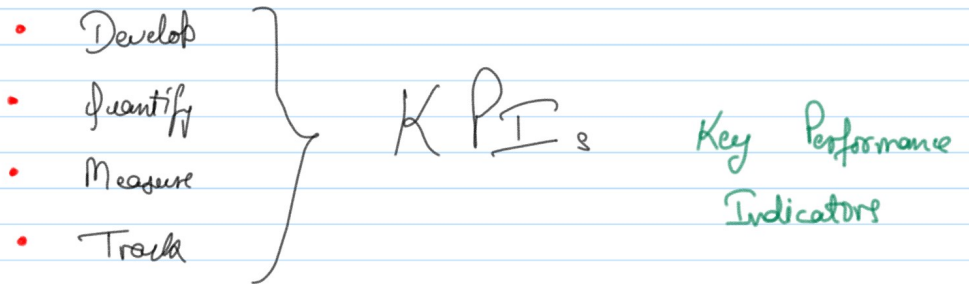
## Remember

- No Copy-paste
- No Junk to Scripts
- Refactor your Code
- Make changes that solve underlying problem
- Simplicity is better than complexity

## Why think like a **Businessman**?

- Businessmen are about Making Money & spend less of it.
- So your job as a Data Scientist is to solve Problems that help Business make **MORE MONEY** or **SPEND LESS!**

- You need to demonstrate Business acumen that you can really identify real world problems that you can come up with real world solutions that solve them.
- As a Business person you understand how to:



- You need to know how to communicate & present as a story.
- Business problems can be complex & the way to understand if your business is headed in the right direction is by measuring performance using KPIs.
- Know these :-
  - What are the KPIs for your Business?
  - What are the Business Goals?
  - How to measure success for your Business?
- Communicating in an "Easy to Understand" language is required.

Lastly, Before you think like a Data Scientist,  
 you need to know How to Manage Yourself!