

ROLES

Systems Analysis

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UNIVERSIDAD DISTRITAL
FRANCISCO JOSÉ DE CALDAS

Outline

- 1 Analysts
- 2 Software Engineering
- 3 Leaders



Outline

1 Analysts

2 Software Engineering

3 Leaders



Business Analyst

● Skills:

- Strong analytical and **problem-solving** skills.
- Excellent **communication** and interpersonal skills.
- Business **process** modeling and **documentation**.
- Data **analysis** and interpretation.
- **Requirements** gathering and management.
- Stakeholder **management**.

Programming
→ correct
✓ ✓ ✓

● Responsibilities:

- **Statistics**
- **easy**
- **expectations**
- Analyzing business processes and identifying areas for improvement.
- Gathering and documenting business requirements.
- Collaborating with **stakeholders** to define project scope and objectives.
- Creating and maintaining project **documentation**, such as functional specifications and use cases.
- Facilitating **communication** between business users and technical teams.
- Participating in **system testing** and user acceptance testing.
- Providing support and **training** to end users.



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Computer Analyst

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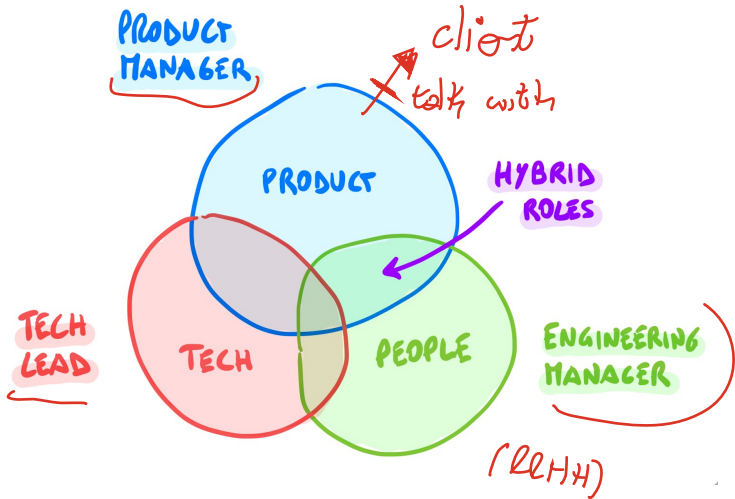
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Tech Company Typical Structure



Roles in a Tech Team I

- **Software Developer (Engineer)** has the responsibility to **design**, **code**, and **test** software applications.
- **Software Architect** has the responsibility to **design** and **implement** software solutions.
- **Backend Engineer** has the responsibility to **develop** server-side applications and databases.
- **Frontend Engineer** has the responsibility to **develop** client-side applications and user interfaces.
- **Full Stack Engineer** has the responsibility to **develop** both server-side and client-side applications.
- **Software Tester** has the responsibility to **develop** test plans, test cases, and test scripts.



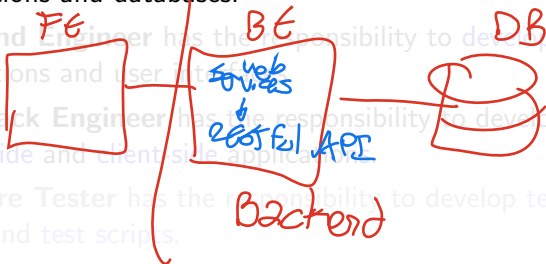
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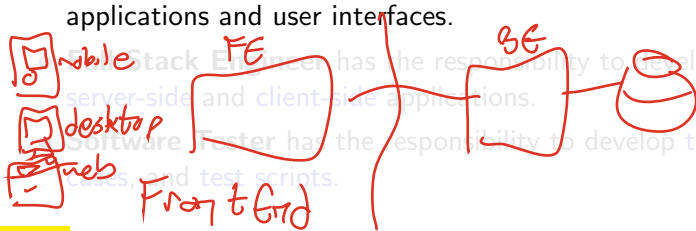


- **Frontend Engineer** has the responsibility to develop client-side applications and user interface.
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Front End + Backend



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Roles in a Tech Team II

- **Data Engineer** has the responsibility to **design**, **build**, and **maintain** data pipelines.
- **Machine Learning Engineer** has the responsibility to **develop** machine learning models and algorithms.
- **Data Scientist** has the responsibility to **collect**, **clean**, and **preprocess** data.
- **DevOps / Site Reliability Engineer** has the responsibility to **automate** software development and deployment processes.



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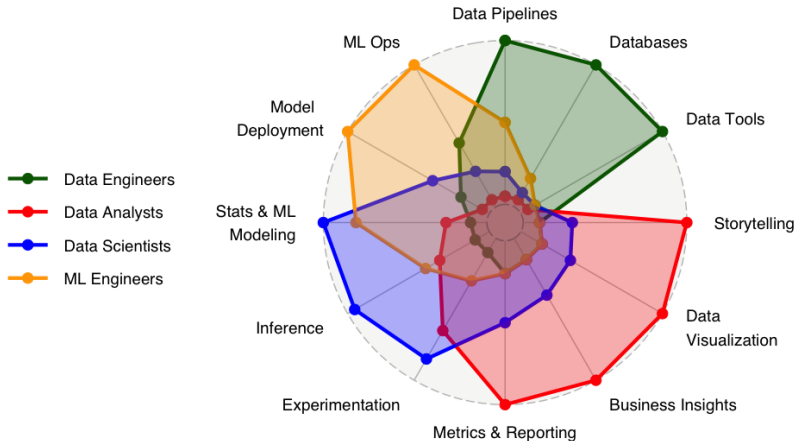


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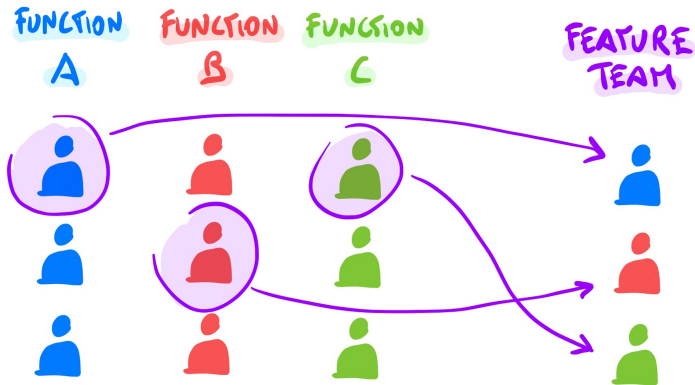
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Data Related Roles



Feature Teams



Soft Skills

- **Soft skills** are **personal attributes** that enable someone to **interact** effectively and harmoniously with other **people**.
- Typical Soft Skills:
 - **Communication** skills (verbal and written).
 - **Teamwork** and collaboration.
 - **Problem-solving** and critical thinking.
 - **Adaptability** and flexibility.
 - **Time management** and organization.
 - **Leadership** and management.
 - **Emotional intelligence**.
 - **Creativity** and innovation.
 - **Conflict resolution**.
 - **Networking** and relationship building.
 - **Customer service** and client management.



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Technical Leader

● Skills:

- Strong technical skills and **expertise**.
- Excellent **communication** and interpersonal skills.
- Ability to mentor and **coach team** members.
- Knowledge of software development **methodologies**.
- Ability to work independently and in a **team environment**.

● Responsibilities:

- Providing technical guidance and support to **team** members.
- Setting technical direction and standards for the **team**.
- Reviewing code and providing feedback to **team** members.
- Resolving technical issues and **challenges**.
- **Collaborating** with stakeholders and senior management.
- Ensuring technical **quality** and best practices are followed.



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Team Leader

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- Strong **leadership** and management skills.
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- Ability to motivate and **inspire team** members.
- Knowledge of software development **methodologies**.
- Ability to work independently and in a **team** environment.

● Responsibilities:

- Leading and managing a **team** of software developers.
- Setting project **goals and objectives**.
- **Assigning tasks** and monitoring progress.
- Providing guidance and support to **team** members.
- Resolving conflicts and issues within the **team**.
- Communicating with **stakeholders** and senior management.
- Ensuring project deadlines and **quality** standards are met.



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What is to be a leader? I

- **Leading** a team is **not a role**. It is a decision, you could be a **leader** anytime and anywhere.
- **Teamwork culture** is pretty **important**. It creates habits, open communication, safety spaces for inclusion.
- **Psychological safety** is a **key** point to have an **effective** team. You could develop *technical skills*, but **it is not enough**.
- **Hierarchy** is very important. **Anarchism** tends to fail. Hierarchy exists by **status** and **power**.
- In a **hierarchy experts lead** to make **better decisions**. However, anyone must be **careful** to not leave people behind.



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What is to be a leader? II

- With **crystal communications** and clarity on **business goals**, achievements, the people feel **more comfortable** to pursuit same **goals** as a **team**.
- A **good leader** must think in **outcomes** more than in **outputs**. It helps to always bring **business value** over **complete tasks**.
- **Failure** is always an **option**. Learn how to **deal** with **bad moments**, not punish, just **fix and learn**.
- Someones think you **born** as a leader. Another ones think a leader could be **created** with the time. Either way, **context** and **self-desire** to growth are vital.
- Make **ethical decisions** is a key, it leads to take **right** and **better decisions**.



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What is to be a leader? III

- It is important to always be **psychological well-being**. You will be **stronger**, could **help** people, and have a better **points of view** of everything.
- A **good leader** built **trust relationships**, also have **emotional intelligence** to communicate and read the others.
- To develop as a leader some good guides are the **three C's**: Curiosity, Courage, and Commitment.



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Thanks!

Questions?



Repo: <https://github.com/EngAndres/ud-public/tree/main/courses/systems-analysis>

