

Professional Issues in IT

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Director's

- In small companies, share-holders may run the company directly ... but **“too many cooks spoil the broth”**. Some share-holders only want to invest money, not run a company.
- Company Law says that share-holders appoint director's to run the company on their behalf.
- In small companies, the shareholders may actually be directors or at least be in regular contact with them.
- In large public companies, the shareholders have very little opportunity to influence the directors. They may not even know who director's are
- To compensate for this, the law makes directors obligations. i.e., take care of interests of:
 - Company employees
 - Share-Holders

Difficult Balance

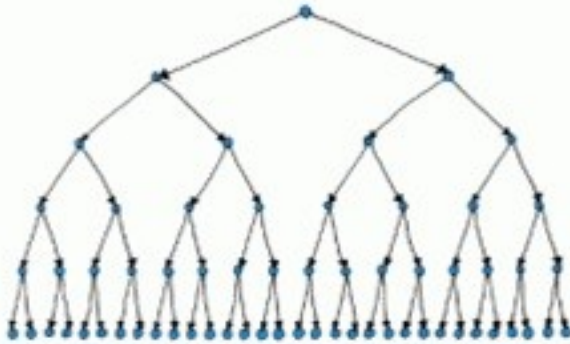


Board of Directors

- Members can be Elected or Appointed after interview
- Directors jointly oversee the activities of a company
- Board of Governors
Board of Directors
Board of Trustees, etc. etc. Same thing.
- Two-Tier Boards (in European/Asian countries):
 - Executive Board: Supervises Day-To-Day business through Managers
 - Supervisory Board: Supervises the Executive Board

Tier System of Board of Directors

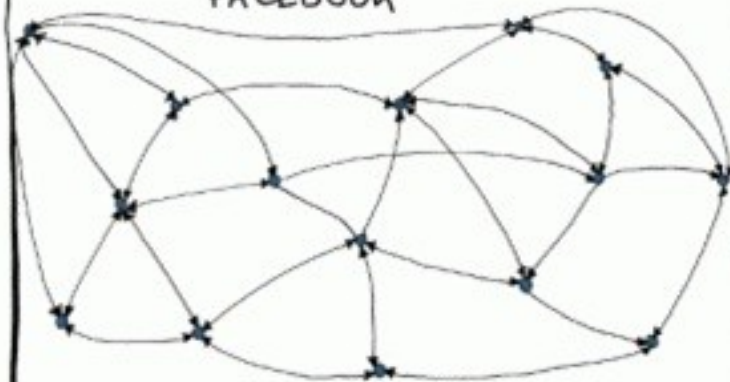
AMAZON



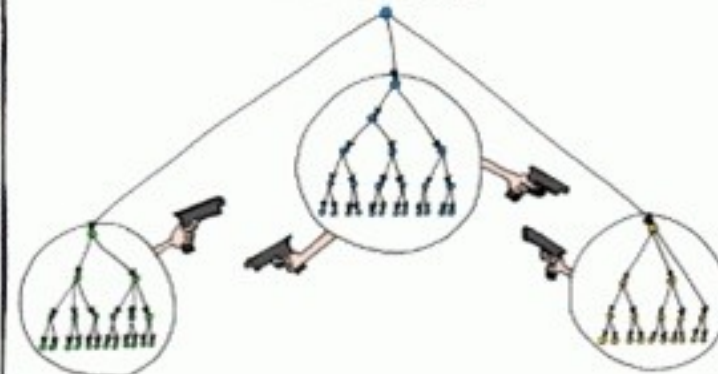
GOOGLE



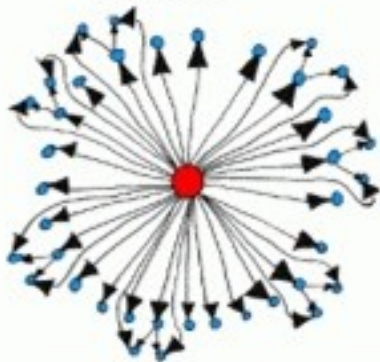
FACEBOOK



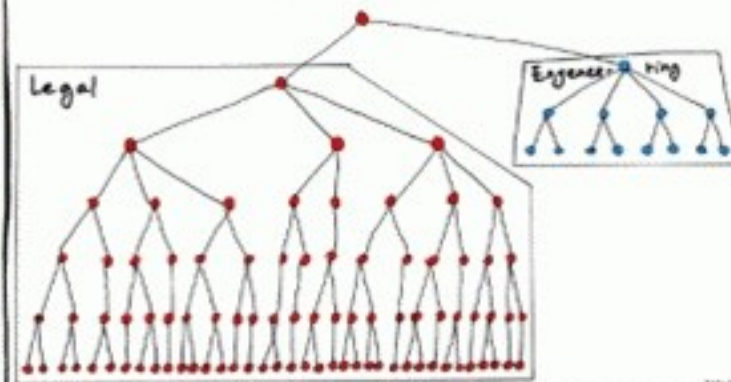
MICROSOFT



APPLE



ORACLE



Directors

- Directors must act in **good faith** for the benefit of company.

- You are a director of a company that writes software. Someone approaches you to have some **very small** software written.

- Option A: You realize you can write software in your spare time so your employees can do other important stuff for the company.
- Option B: You put the small software in the pipeline for your employees to complete just like any other project.
- Option C: any ideas ... ?

- You are a director of a company who is about to make a contract with a supplier. The supplier is related to you, or is your friend. The supplier has already been shortlisted to be amongst the best and most reasonable of other suppliers.

- Option A: You tell the company that supplier is your friend/relative and hence cannot be selected.
- Option B: You keep quiet because the supplier is qualified to get the contract and it will not be fair to deny them the contract because they are related to you.
- Option C: ... any ideas .. ?

Directors

- Directors must act in **good faith** for the benefit of company.

- *Option B: You put the small software in the pipeline for your employees to complete just like any other project.*
- Not doing so will suggest to other employees that director has some personal interest (even though there was none)
- This way everything will be more transparent.

- *Option A but with modification: You tell the board of directors that supplier is your friend/relative and hence refrain from voting when the matter is discussed*
- Known as **Declaring Conflict of Interest**
- What if every director has a conflict of interest?


External Obligations of Director

- In Two-Tier system,
this is responsibility of supervisory boards
- 1) Be aware of company's financial position**
(It is not a good idea that you keep on taking loans if you are not aware that the company can pay it back)
 - 2) Preparation of Annual Report** to be submitted to
company law division, SECP
(and viewable by share-holders).
 - 3) Ensure company complies with all provisions of law.**
If law is breached, company will be prosecuted for
violation of law, but in some cases, directors can be made
personally responsible for breach.

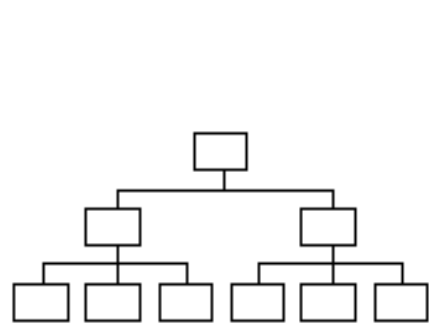
Executive Director vs Non-Executive Director

- Many companies have executive, and non-executive directors
- Executive Director also employee of the company
- Non-Executive Director only works in advisory capacity to the company.
 - Attend all monthly board meetings, with equal importance as executive directors.
 - Paid a fee for their services.
 - They have the same role as executive directors but may be given some additional tasks such as “Determining an Executive Director's Tankhwa”

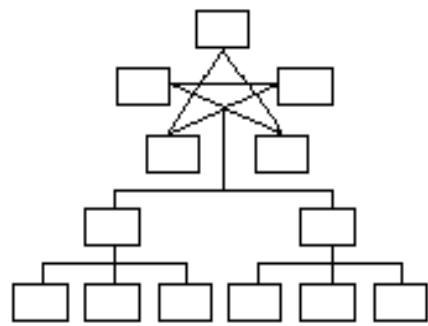
Company Secretary

- Legally responsible for keeping various records intact.
- Responsible for handling paper-work and administration issues with SECP. 
- Secretary is often a “Director” also (mostly common in small companies).
- Larger companies hire outside staff, usually: accountants.

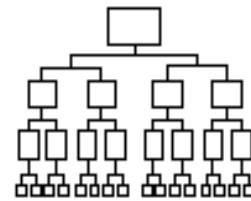
Structure and Management of Organizations



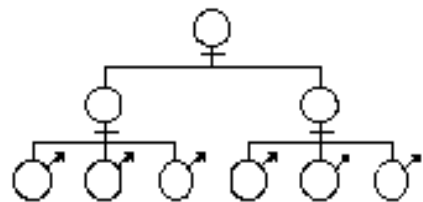
TRADITIONAL



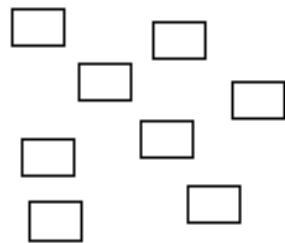
RUSSIA



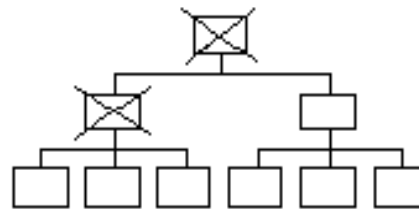
POLAND



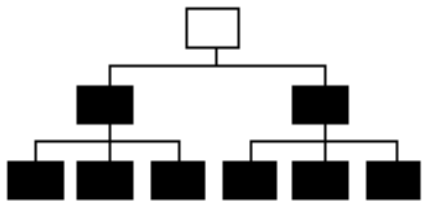
WOMAN'S ORGANIZATION



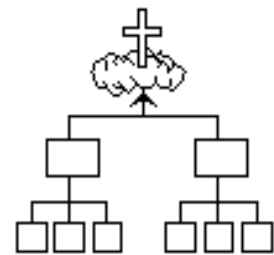
ARABIAN COUNTRIES



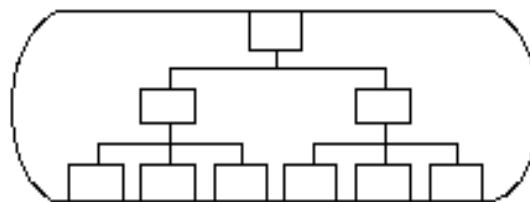
LATIN AMERICA



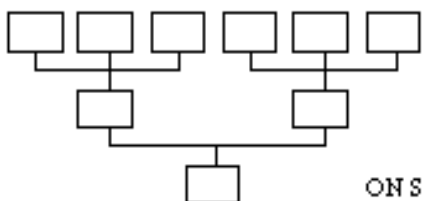
SOUTH AFRICA



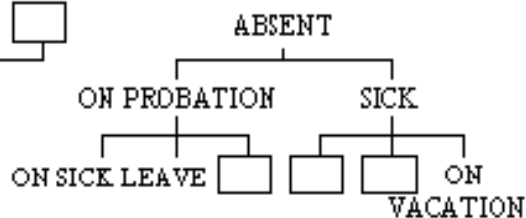
VATICAN



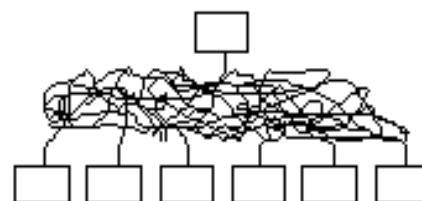
U.S.A.



CHINA



FRANCE



TURKEY

- How is work shared between employees and/or directors of the company?
- How people are grouped?
- Who reports to whom?

Objectives of an Organization Structure

- **Facilitate Flow of Information**
 - so that directors can be facilitated in decision-making
- **Facilitate Effective Co-ordination**
 - **Pooled inter-dependence:** Components are independent and only contribute financially to the company
 - **Sequential inter-dependence:** One component has to complete its function before next component perform its (e.g., system developers complete product before testers can do their job)
 - **Reciprocal inter-dependence:** Unit-A output becomes the input of Unit-B, and Unit-B's output becomes the input of Unit-A (e.g., operations unit and repair unit)

Objectives of an Organization Structure

- **Facilitate Flow of Information**
- **Facilitate Effective Co-ordination**

SO ...

Organizations will

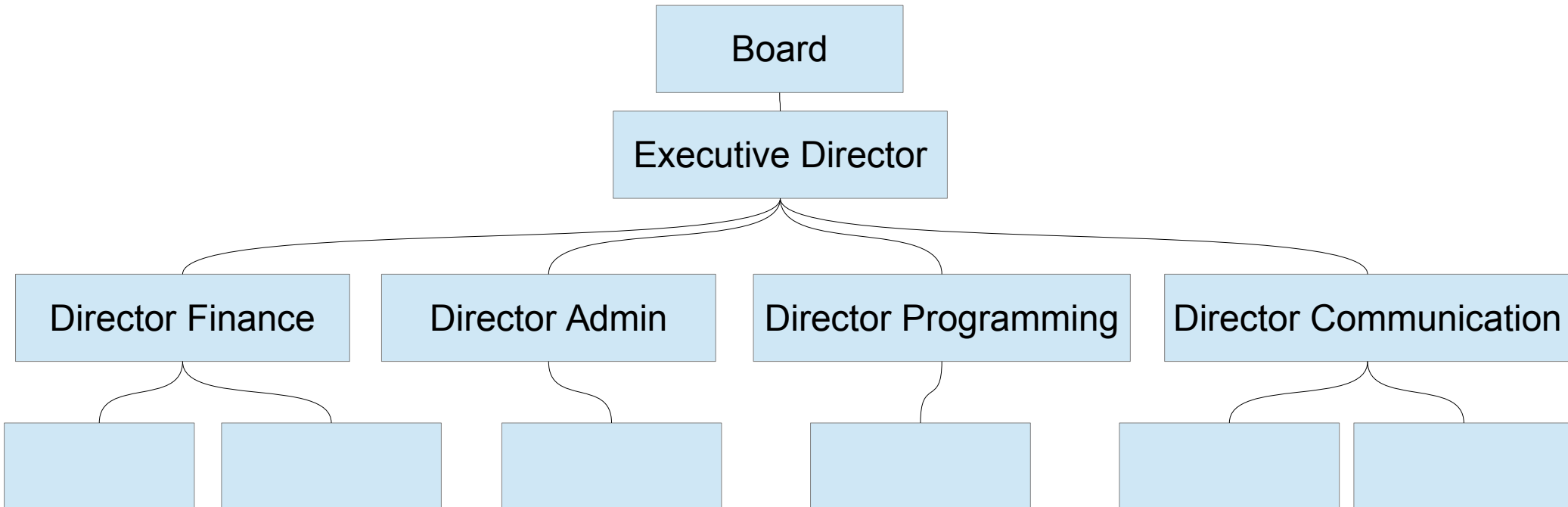
- 1) Allocate Resources (Purchase if necessary)
 - 2) Allocate People (Hire if necessary)
- to make this structure operate smoothly

Hierarchical Structure

- **All tasks are split up into specialized jobs**
(professionals will be hired for each specialized job category)
- **Performance of each tasks is governed by precise rules:**
(If a rule says that task is to be done this way, professional hired for job cannot change that).
- All communications and tasks will be done “**impersonally**”, and in “**formal**” manner

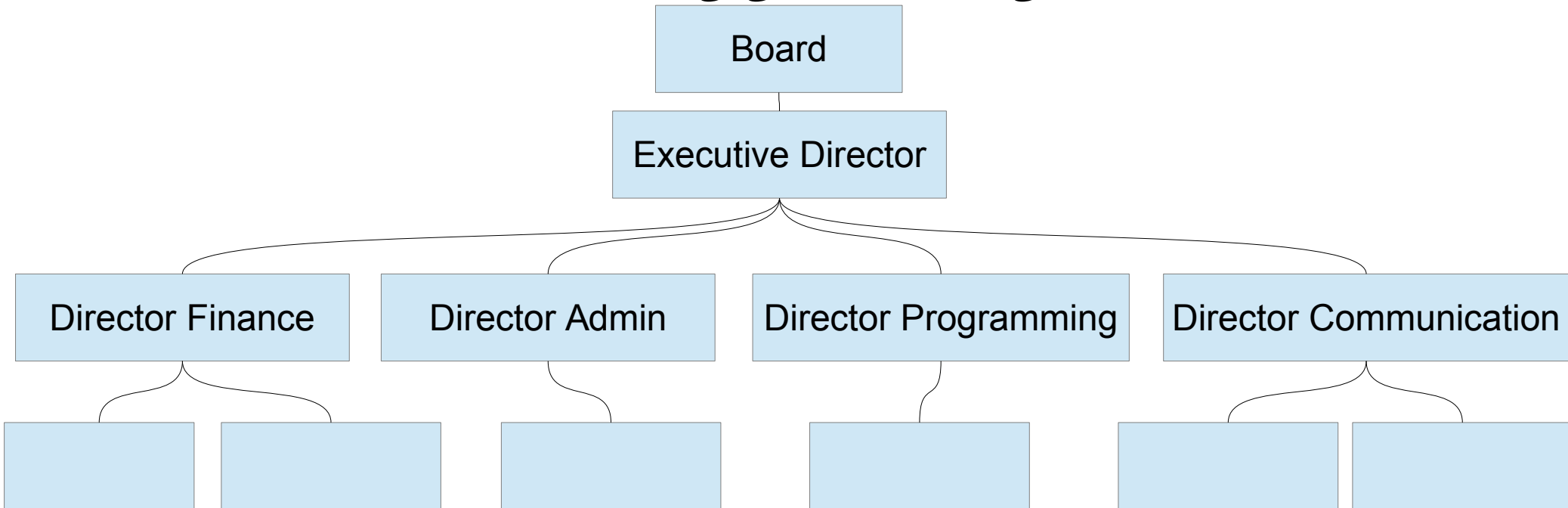
Hierarchical Structure

- **Recruitment:** Based on identification of new task:
Promotion: Based on seniority and/or achievement
Dismissal: Nobody can dismiss employee arbitrarily
- Follows “Structure by Function” approach, where all tasks are accumulated to represent “core functions” of an organization.
- Each unit of tasks will be headed by **one-and-only-one manager**



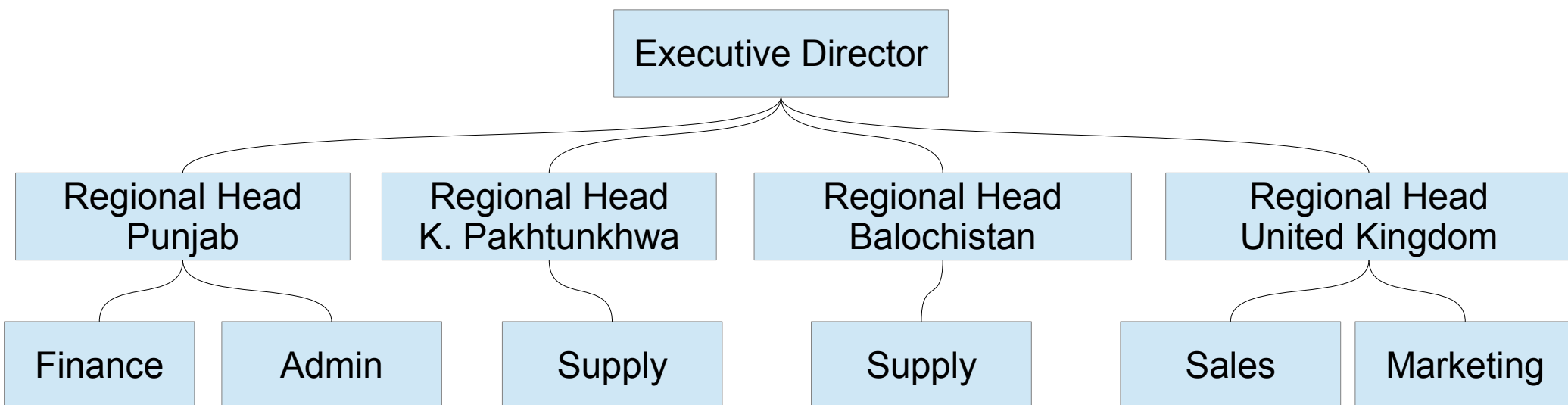
Hierarchical Structure

- Appropriate for small organizations
- Simple and easy for each department to understand their responsibilities
- Also simple and easy to hold a particular department accountable if something goes wrong



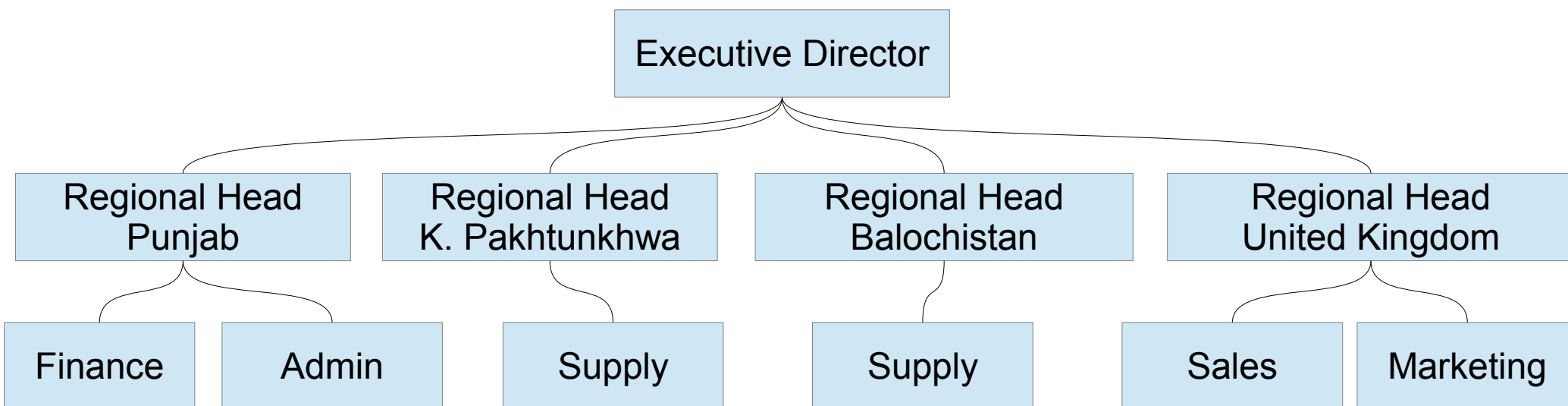
Structure by Geography

- Mostly applied to Multi-National companies (with presence in many countries and/or geographic areas)
 - Legal Presence (registered company, tax registered)
 - Physical Presence (in terms of offices)
 - Market Presence (sales/marketing staff, trained in local languages and cultural factors)



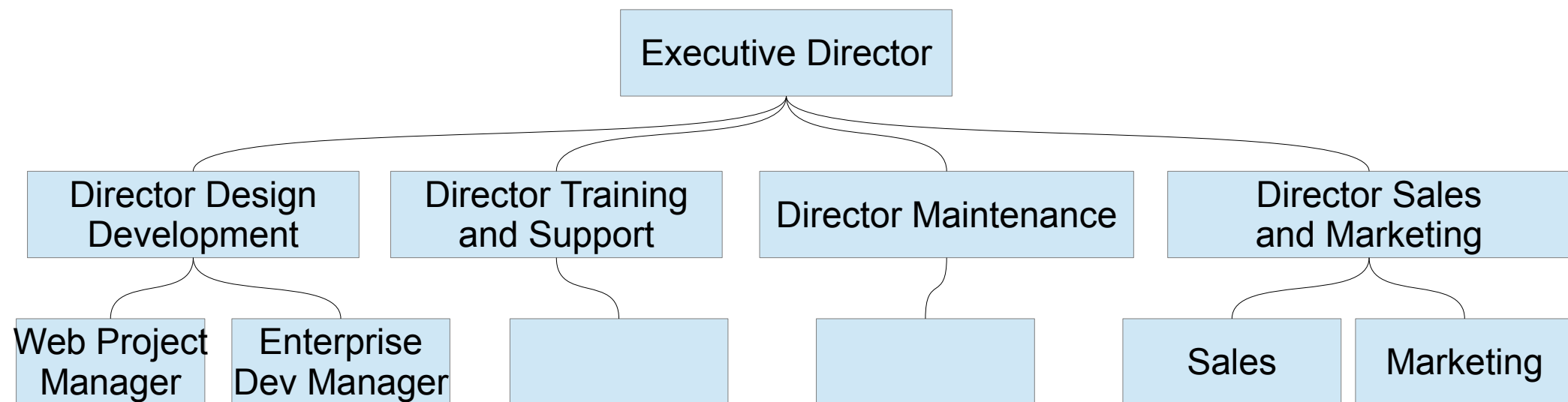
Structure by Geography

- May lead to function duplication
- Work services and process may differ from area to area
- No unified culture in organization
- Coordination challenges due to distances



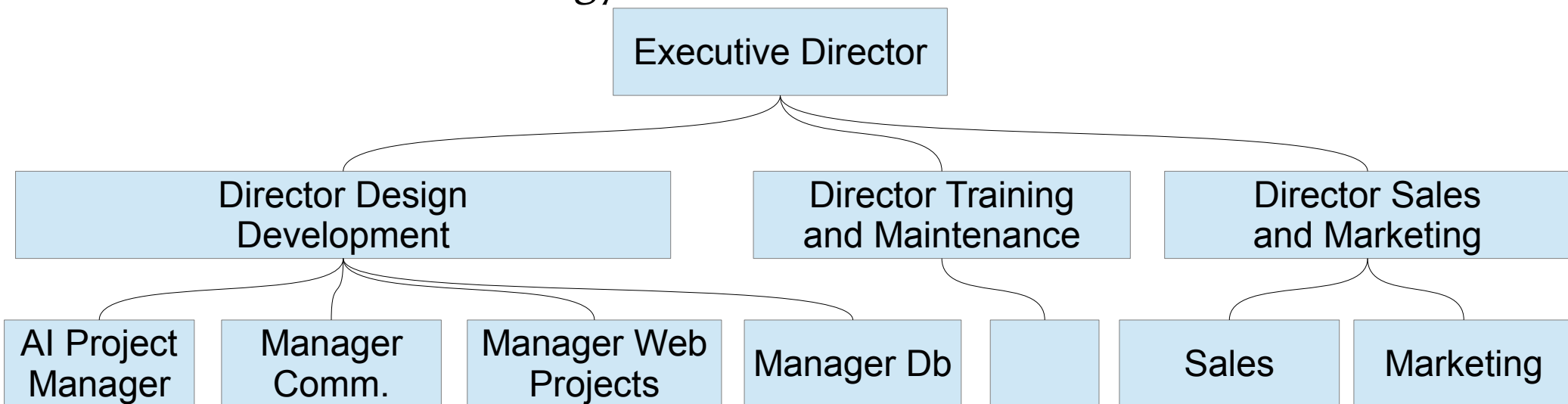
Structure by Product Line

- Organization arranges itself on basis of different products/services that they provide



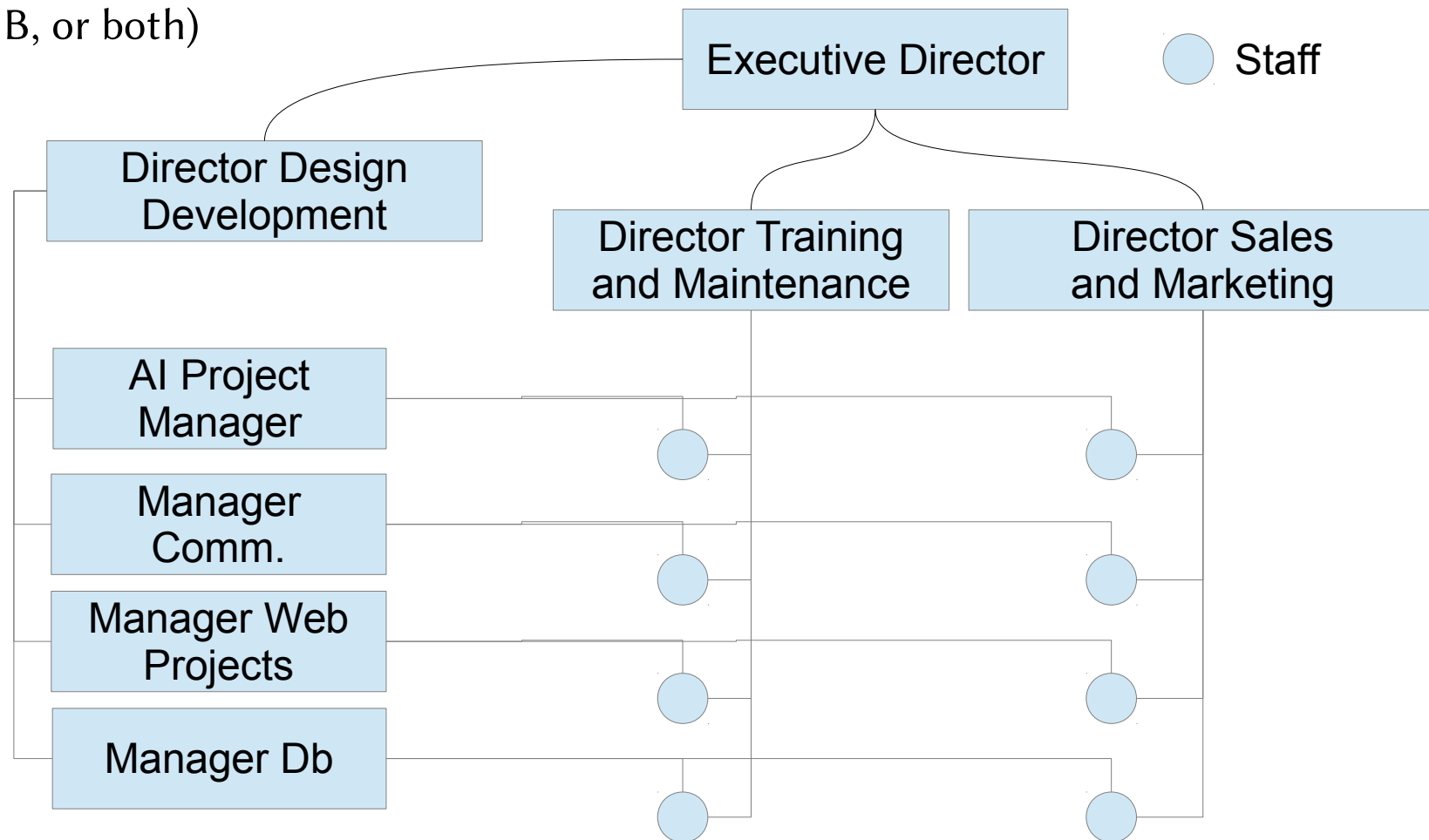
Structure by Technology

- Have divisions specializing in artificial intelligence, communications, web-based systems, databases, etc.
- Issues:
 - A customer requirement may be addressed by several different technologies
 - Software developers may have expertise belonging to more than one technology. Under which structure should they operate and report to?
 - Sales/Marketing staff will have problems in guessing which clients to refer to which technology



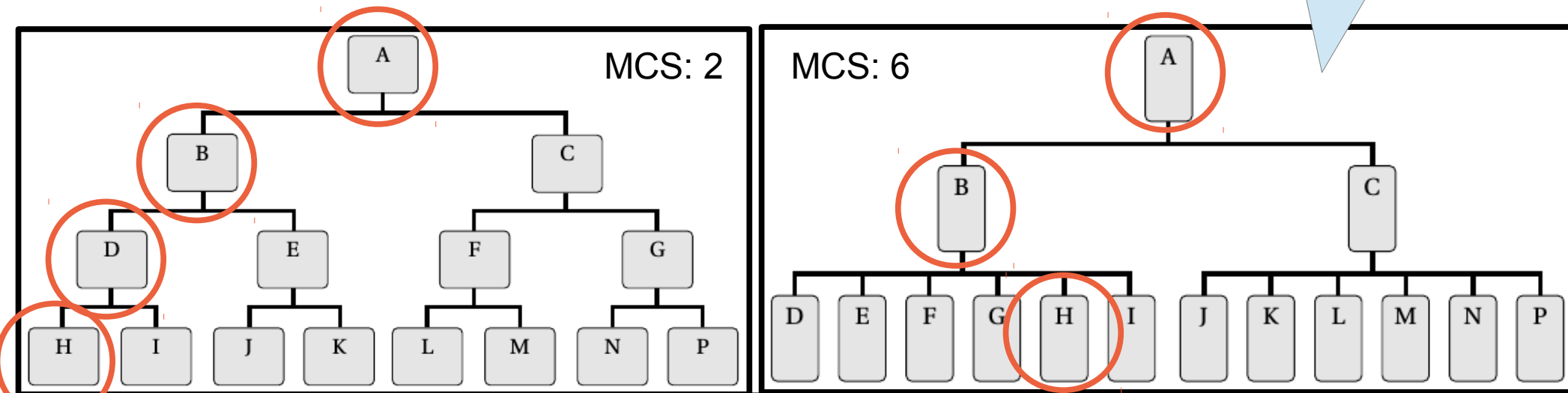
Matrix Structure

- Used to mix roles of different organization components (**But very difficult to manage**)
 - Unclear decision making (two bosses for whom it is not necessary that they agree on an agenda)
 - Two bosses make workers unaware of whom to report to (boss A, or boss B, or both)
 - Accountability in case of problems (on whom to place it? Boss A, or boss B, or both)



Depth of Structure

- **Depth of Structure (DOS):** Maximum # of layers in an organization hierarchy
- **Managerial Control Span (MCS):** Number of people that report to a manager
- Debate of Flat vs Deep



Centralization vs Decentralization

- Scenario: Company wide rules that all software should be developed in C++, and for databases, Oracle should be used.
- Rules delegated from the top must be followed
- Benefit: Programmers can easily be moved from one part of company to another
- Drawback: You cannot use another language/db even if it was much better than the company choice
- Rules delegated from top can be followed (but may be adapted locally if required)
- Benefit: Use the most suitable tools for each project component
- Drawback: Maintenance nightmare, + may also result in a large part of un-documented code using old technologies

Good for manufacturing companies

Good for tech companies