

Teamwork

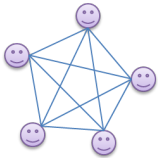
Team Structures



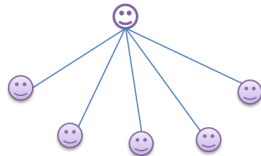
👤 Can explain common team structures

Given below are three commonly used team structures in software development. Irrespective of the team structure, it is a good practice to assign roles and responsibilities to different team members so that someone is clearly in charge of each aspect of the project. In comparison, the 'everybody is responsible for everything' approach can result in more chaos and hence slower progress.

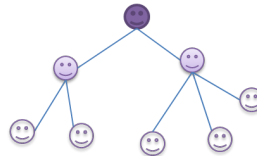
egoless team



chief-programmer



strict-hierarchy



Egoless team

In this structure, **every team member is equal in terms of responsibility and accountability**. When any decision is required, consensus must be reached. This team structure is also known as a *democratic* team structure. This team structure usually finds a good solution to a relatively hard problem as all team members contribute ideas.

However, the democratic nature of the team structure bears a higher risk of falling apart due to the absence of an authority figure to manage the team and resolve conflicts.

Chief programmer team

Frederick Brooks proposed that software engineers learn from the medical surgical team in an operating room. In such a team, there is always a chief surgeon, assisted by experts in other areas. Similarly, in a chief programmer team structure, **there is a single authoritative figure, the chief programmer**. Major decisions, e.g. system architecture, are made solely by him/her and obeyed by all other team members. The chief programmer directs and coordinates the effort of other team members. When necessary, the chief will be assisted by domain specialists e.g. business specialists, database experts, network technology experts, etc. This allows individual group members to concentrate solely on the areas in which they have sound knowledge and expertise.

The success of such a team structure relies heavily on the chief programmer. Not only must he/she be a superb technical hand, he/she also needs good managerial skills. Under a suitably qualified leader, such a team structure is known to produce successful work.

Strict hierarchy team

At the opposite extreme of an egoless team, a strict hierarchy team has **a strictly defined organization among the team members**, reminiscent of the military or a bureaucratic government. Each team member only works on his/her assigned tasks and reports to a single "boss".

In a large, resource-intensive, complex project, this could be a good team structure to reduce communication overhead.

📖 Exercises

