Planning Organisation Structure

SDLC (Sftw Development life cycle) : It has 6 phases.
from Analysis
to maintenance.

→ In planning organisation structure we discuss on the various Tasks that are related to each phase & the members involved in performing the tasks.

→ Planning an organisational structure can be classified into 3 categories. ① Project Format.
② Functional Format
③ matrix format.

Project format :-

→ It involves a gp of programmers right from the beginning to the end of the sftw development. Each of the programmer works for 1 to 3 years on each project.

↔ All the programmers involved do not excel in all the phases of sftw development life cycle/phases.

→ The tasks are assigned to the programmers depending on the area of their interest.

→ After the completion of their part, a new project is assigned to the programmer.

Advs :-

→ The project is restricted only to the teams of programmers.

→ The programmers have the leverage (chance/scope) of working only in areas of their interest.

Disadvs :-

→ They do not focus on the other areas of sftw developm except the area of their interest

Project

Functional format :- It includes a gp of programmers working in different phases as teams.

→ Team is managed by project manager/leader.

→ It rules out (removes/reduces) over specialization i.e. It fails, a programmer can be involved in more than one phase/module.

Eg:- suppose there are 5 programmers say P_1, P_2, P_3, P_4, P_5.

Analysis → P_1, P_2, P_5.

coding → P_2, P_3.

maintenance → P_1, P_4, P_5.

So, it is waste of time & don't accomplish the task intime.

If there is no interaction / communication b/w them they develop similar modules / overlapping components

Disadvs :-

→ High level of comm is required b/w the teams involved in the sw development.

① The project manager should be an expertise in all the areas of sw development.

② maintaining documents of the activities performed becomes compulsory.

Note :-

over specialization means → The programmer is assigned to phases which are not of much interest. Project manager assigns it.

Matrix format :-

→ It includes more than one programmer & each programmer is assigned to more than one project performing / carrying out diff activities in each project ruling out over-specialization.

→ Each project manager / leader, who should be an expert

Disadvs:-

→ Documentation is necessary bcoz project spread over many programmers who interns are assigned to more than one project.

→ As the no of projects, the programmer is involved increases then the performance decreases.

[i.e. no of projects (work load) $\propto$ $\frac{1}{\text{Performance}}$] inversely proportional.

Drawbacks if we do not use process models:-

→ Quality can't be achieved.

→ Efforts can't be estimated

→ Continuous Improvement can't be achieved.

→ No control over the activities of the process.