Software Project Management

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Waterfall / Hybrid – Process Groups & Knowledge Areas - 1

Knowledge Areas	Project Management Process Groups				
	Initiating Process Group	Planning Process Group	Executing Process Group	Monitoring and Controlling Process Group	Closing Process Group
4. Project Integration Management	4.1 Develop Project Charter	4.2 Develop Project Management Plan	4.3 Direct and Manage Project Work	4.4 Monitor and Control Project Work 4.5 Perform Integrated Change Control	4.6 Close Project or Phase
5. Project Scope Management		5.1 Plan Scope Management 5.2 Collect Requirements 5.3 Define Scope 5.4 Create WBS		5.5 Validate Scope 5.6 Control Scope	
6. Project Time Management		6.1 Plan Schedule Management 6.2 Define Activities 6.3 Sequence Activities 6.4 Estimate Activity Resources 6.5 Estimate Activity Durations 6.6 Develop Schedule		6.7 Control Schedule	
7. Project Cost Management		7.1 Plan Cost Management 7.2 Estimate Costs 7.3 Determine Budget		7.4 Control Costs	

Waterfall / Hybrid – Process Groups & Knowledge Areas - 2

8. Project Quality Management		8.1 Plan Quality Management	8.2 Perform Quality Assurance	8.3 Control Quality	
9. Project Human Resource Management		9.1 Plan Human Resource Management	9.2 Acquire Project Team 9.3 Develop Project Team 9.4 Manage Project Team		
10. Project Communications Management		10.1 Plan Communications Management	10.2 Manage Communications	10.3 Control Communications	
11. Project Risk Management		11.1 Plan Risk Management 11.2 Identify Risks 11.3 Perform Qualitative Risk Analysis 11.4 Perform Quantitative Risk Analysis 11.5 Plan Risk Responses		11.6 Control Risks	
12. Project Procurement Management		12.1 Plan Procurement Management	12.2 Conduct Procurements	12.3 Control Procurements	12.4 Close Procurements
13. Project Stakeholder Management	13.1 Identify Stakeholders	13.2 Plan Stakeholder Management	13.3 Manage Stakeholder Engagement	13.4 Control Stakeholder Engagement	

Waterfall / Hybrid

Project Charter:
- SoW
- Assumptions & Constraints
- Higher level risks
- Higher level milestones
- Stakeholders list
- Assigned Project Manager
- Authorized person from client

Project Plan:
- Integration Management Plan
- Scope Management Plan (Requirement/Functional Specification Document and WBS in Waterfall)
- Time Management Plan (Project Schedule in Waterfall)
- Quality Management Plan
- HRM Plan
- Risk Management Plan
- Procurement (Contract) Management Plan
- Communication Management Plan
- Stakeholder Management Plan
- Cost Management Plan

Assigning Resources

▶ Assigning Resources or let say resource allocation is the process of assigning recourses to the project in the effective and economical way.

▶ Good strategies of resource allocation keep the project work smooth.

▶ It keeps the project on time and helps in avoiding the wastage of any kind of resources.

Types of Resources

▶ In a project there could be different kind of resources

  ▶ Human Resources

  ▶ Financial Resources

  ▶ Many More. .. .

Proper resource allocation strategy

1. Divide the Project into Tasks:

   ▶ When we divide the project into tasks it becomes easy to assign resources to tasks.

2. Assign the Resources.

3. Determine resource attributes

   ▶ What should be the quality, what should be the human skills level, etc.

4. Resource Leveling

   ▶ The process of keeping an eye or say inspecting the allocated resources to keep the work of the project smooth is the concept of resource leveling

   ▶ For Example: We have a skilled person (Human Resource) we ask him to work for 1hour on 1st day and 3 hours on 2nd day means we are not doing proper resource leveling. In this scenario resource leveling is asking him to work for 2 hours in a day.

5. Re-allocate as necessary

6. Track resource utilization

Team Development

▶ A Project is a team work, and when you are learning the Project Management, Team development is the most important topic in this field.

▶ Basically, team development is the 5 stages through which a team passes as it develops.

▶ As a project manager it is important for you to know these 5 stages of team development to develop a good team for your project.

▶ As a student who is learning the Subject of Project Management this is a very important exam question as well.

Forming
Team acquaints and establishes ground rules. Formalities are preserved and members are treated as strangers.

Storming
Members start to communicate their feelings but still view themselves as individuals rather than part of the team. They resist control by group leaders and show hostility.

Norming
People feel part of the team and realize that they can achieve work if they accept other viewpoints.

Performing
The team works in an open and trusting atmosphere where flexibility is the key and hierarchy is of little importance.

Adjourning
The team conducts an assessment of the year and implements a plan for transitioning roles and recognizing members' contributions.

Stages of Team Development

1. **Forming:**

This is the initial stage of team development, at this stage team member do not know but they are concerned about their role in the team. As a project manager will be playing a dominant role here and team will be looking at you for the guidance in a or two meeting you will guide all the member about the project and all the important stuff about the project on which the team is going to work and address their basic question for the guidance purpose.
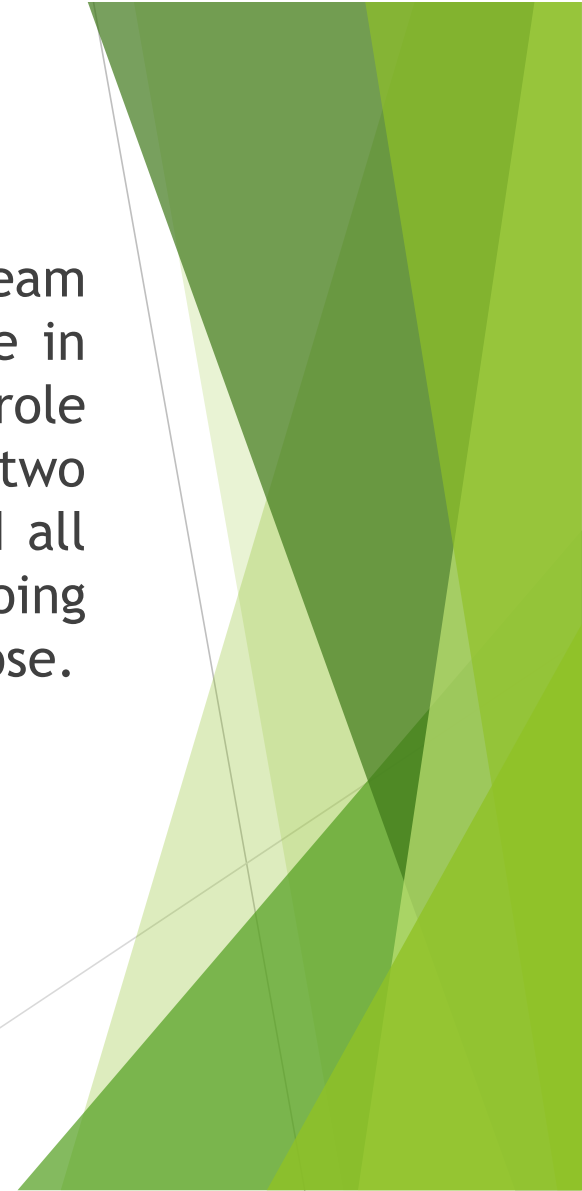
2. Storming:

At this stage, Team member become more open to each other and with project manager as well, they share their ideas and thoughts regarding the project.

• Team members also make the plan here how they are going to solve the problems as a team, how they are going to work as a unit.

• Team also address the problems here which they are going to solve during the project.

Storming: Conflict Management

▶ In a workplace bring together a group of people from different environment with different school of thought and mindset and ask them to work together.

▶ Everyone has different needs, goals and attitudes they will not agree with each other on everything and as a result conflict may arise.

▶ It is important to deal the conflicts as soon as possible to avoid the issues which may affect the productivity.

▶ A Project Manager's way of dealing with the conflict may affect the whole organization.

Storming: Strategies to conflict resolution

In 1970 Thomas and Kilmann Introduced 5 strategies to deal with conflicts.

▶ Their strategies based on the choices people made during the conflict about how much they will be assertive or cooperative in the whole scenario of a conflict.

▶ They just categorize the different ways people use to solve the conflict and tell the impact of the strategy on problem resolution.

▶ If you have the knowledge of these strategies you may decide in a better way as a project manager how you should solve the problem.

CONFLICT MANAGEMENT STRATEGIES

Assertive

COMPETING
The Goal Is To Win

COLLABORATING
The Goal Is To Find Win-Win Solution

COMPROMISE
The Goal Is To Find A Middle Ground

Not Assertive

AVOIDING
The Goal Is To Delay

ACCOMMODATING
The Goal Is To Yield

Uncooperative

Cooperative

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Strategy 1: Avoiding

▶ In this people ignore the conflict and feel uncomfortable in getting into the conflict.

▶ When ever people opt. this strategy it do not solve any problem because there is lack of conversation in the conflict.

▶ Small number of people are participating in this way to resolve the conflict

▶ This way it would be difficult to solve the problem.

Strategy2 – Competing

▶ Assertive people jump into the process resolution and try to make their opinion win to make the issue resolve.

▶ And in this strategy mostly one person wins and the other one loses.

▶ This is a strategy but again not a good strategy all the time.

Strategy 3: Accommodating

▶ In this strategy some one becomes the compromising and show some compromising behavior on his opinion to solve the conflict.

▶ This strategy looks good, yes, it is good as well but again not all the time.

▶ This strategy some time leaves the door open for more people to come and ask you to compromise on your opinion all the time which is not a good thing again.
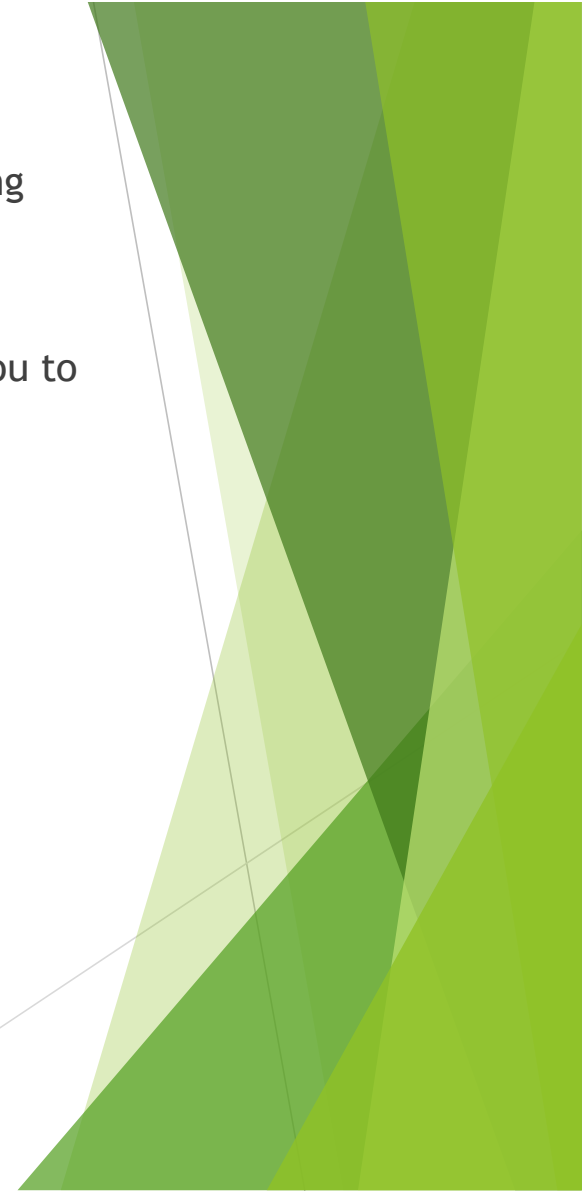
Strategy 4: Collaborating

- Usually most of the teams in project use this strategy.

- In this situation a person can be cooperative and can be assertive at the same time.

- In this way each member of the group/team will put his part in the conflict resolution and a shared solution will get established.
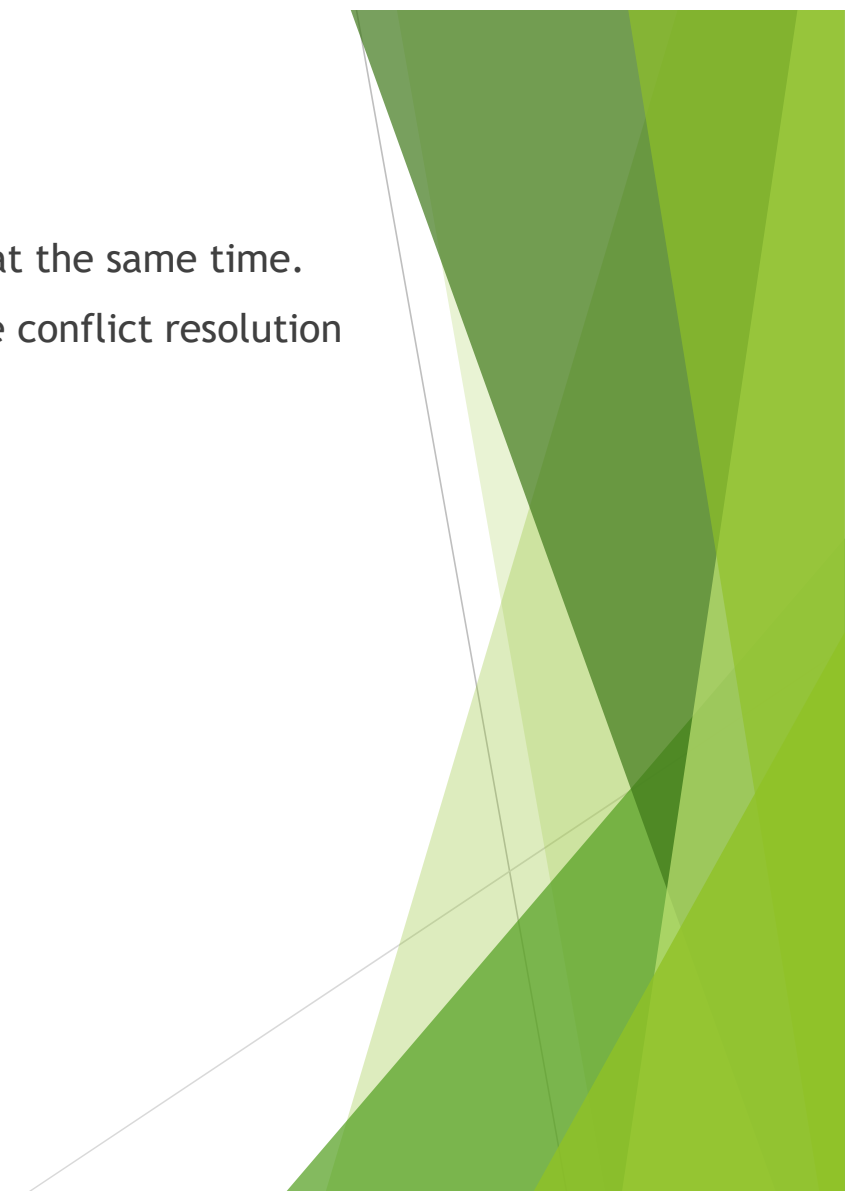
Strategy 5: Compromising

▶ In this strategy each member of the group may give up on something and not every member will get everything He want.

▶ In this conflict resolution style, most of the time not all members are happy but all members are compromising on something.
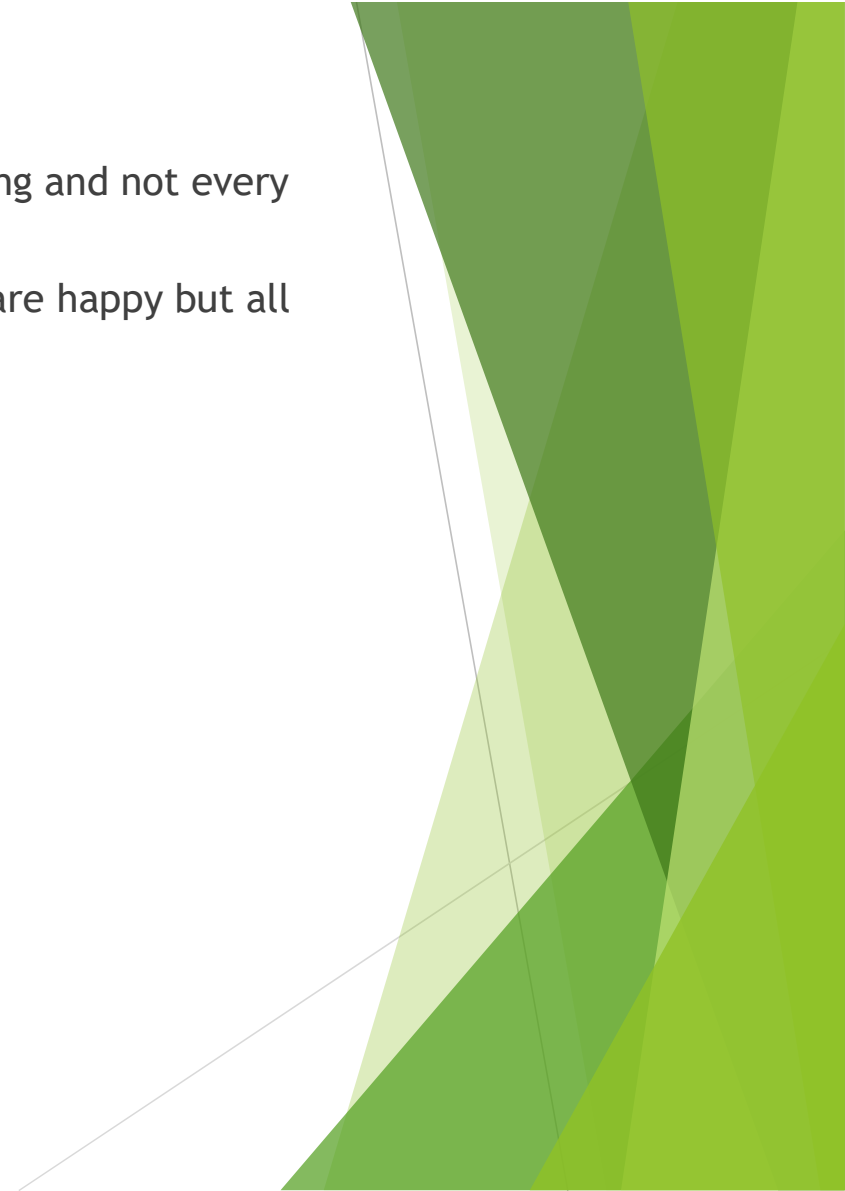
3. Norming:

▶ A complete hierarchy of project is set here and team start working on project here at a greater pace. From this stage to onward team focuses more on the project as compare to team development.

▶ At this stage Team members also know what are their tasks in the project.
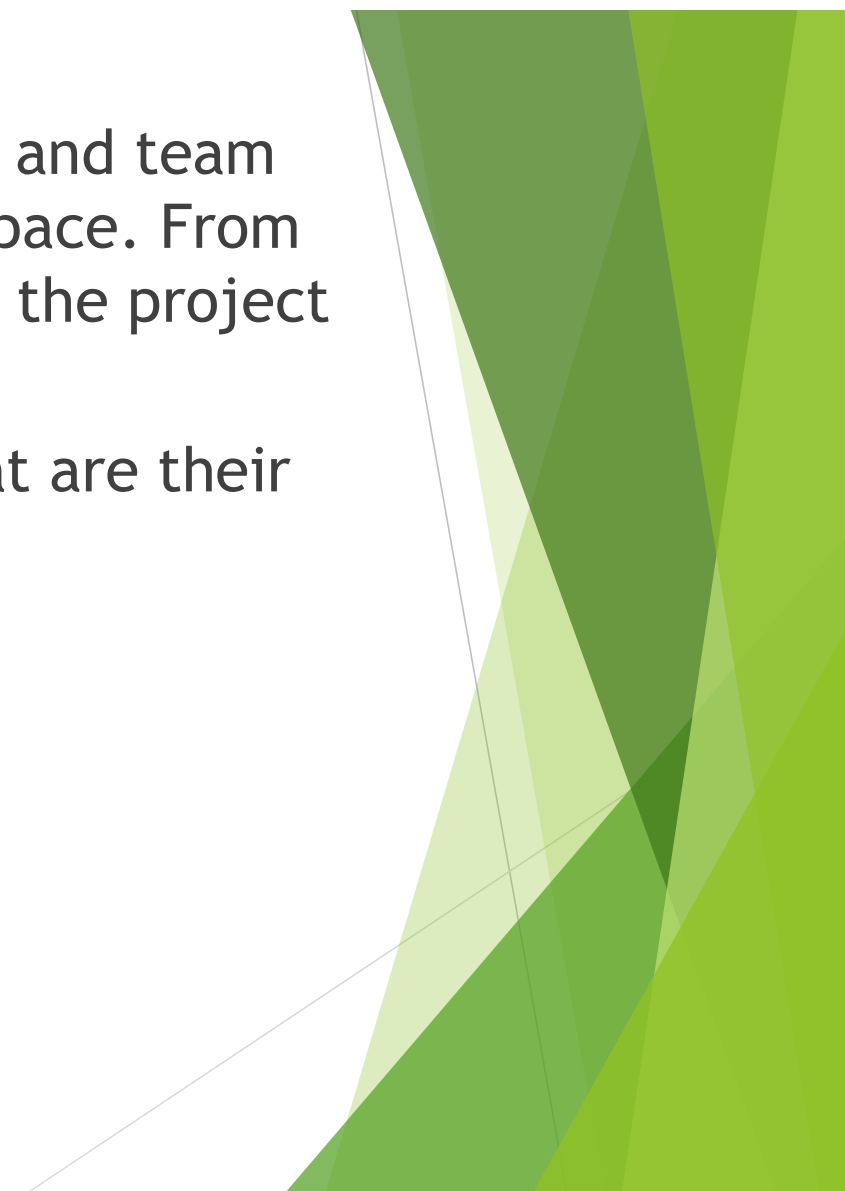
4. Performing:

▶ From this stage the project manager job becomes easier. Team knows their work and responsibilities and the less supervision is required from the project manager.

▶ If you are at this stage your team should be highly motivated and focused on their work and should be making a good progress.

5. Adjourning:

This is the final stage the Team Development, It is the stage where team has successfully completed the project and it is the time to break apart OR START A NEW PROJECT TOGETHER