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| **Roll No.:** A059 | **Name:** Chinmay Parikh |
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1. **Define the Project activity where the Work Breakdown Structure is needed.**

Ans: Activity Definition is the process of identifying the specific schedule activities that need to be performed to produce the various project deliverables. This process identifies the deliverables at the lowest level in the work breakdown structure which is the level of work packages. Each work package is planned (decomposed) into smaller components called schedule activities to provide a basis for estimating, scheduling, executing, and monitoring and controlling the project work. On the base of the work packages one collects all activities, which together constitute the work packages.

There are three reasons to use a WBS in your projects. The first is that is helps more accurately and specifically define and organize the scope of the total project. The most common way this is done is by using a hierarchical tree structure. Each level of this structure breaks the project deliverables or objectives down to more specific and measurable chunks. The second reason for using a WBS in your projects is to help with assigning responsibilities, resource allocation, monitoring the project, and controlling the project. The WBS makes the deliverables more precise and concrete so that the project team knows exactly what has to be accomplished within each deliverable. This also allows for better estimating of cost, risk, and time because you can work from the smaller tasks back up to the level of the entire project. Finally, it allows you double check all the deliverables' specifics with the stakeholders and make sure there is nothing missing or overlapping.

1. **What are the roles of Stakeholders in a project? Who are the significant stakeholders in a project?**

Ans: Stakeholders are those groups, units, individuals, or organizations, internal or external to the organization, which are impacted by, or can impact, the outcomes of the project.

Five Primary Stakeholders are:

1- Project Manager

2- Project Team

3- Functional Management

4- Sponsor

5- Customer

The first step in this process is gaining agreement of all the stakeholders on the goals of the project.

Stakeholder Roles: Project Manager:

* The project manager must ask questions like this: “What is my authority?” “Who do I report to?” “What are my expectations?”

Stakeholder Roles: Project Team:

* All groups and individuals who contribute time, skills, and efforts to the project are considered team members.
* In addition to the people from the company assigned to the project, these can be contractors, and even customers.

Stakeholder Roles: Functional Management:

* These can be department managers, or first-level supervisors.
* Functional managers are responsible for an organizational unit, such as “engineering” or “marketing” rather than for a specific project.
* These are the people with long-term control over employees and other resources in the firm.
* Project managers describe help from functional managers in “getting the right people at the right time” and “timely decisions based on the facts presented by the project team.”

Stakeholder Roles: Sponsor:

* The sponsor is the person with formal authority who is ultimately responsible for the project.
* A sponsor may be a senior executive or a junior manager.
* The sponsor provides the authority that the project manager often lacks.
* First, sponsors are ultimately responsible for the success of the project. The formal authority that comes from their title and position in the organization endows them with the responsibility.
* Second, the sponsor’s primary task is to help the project team be successful. The best sponsors know they aren’t sponsoring a project; they are sponsoring the project manager and the project team.

Stakeholder Roles: Customer:

* Somebody will be paying for the project. These are the ones who buy these projects for their own satisfaction.

1. **How are the goals and scopes determined in a software project? Explain the methods used in defining project planning.**

Ans: *SCOPES -*

The work and resources that go into the creation of the product or service are essentially the things that frame the scope of the project. The scope of the project outlines the objectives of the project and the goals that need to be met to achieve a satisfactory result. Every project manager should understand how to define the project scope and there are some steps that can be followed when doing this.

Steps for defining the scope of a project:

* Project objectives
* Goals
* Sub-phases
* Tasks
* Resources
* Budget
* Schedule

Once established these things, then clarify the limitations or parameters of the project and clearly identify any aspects that are not to be included. In specifying what will and will not be included, the project scope must make clear to the stakeholders, senior management and team members involved, what product or service will be delivered.

Alongside of this, the project scope should have a tangible objective for the organization that is undertaking the project. The purpose may be to create a better product for a company to sell, upgrade a company's internal software so that they can deliver better service to their customers or to create a new service model for an organization. These things are integral to defining the project scope, because they will play a part in how project methodologies are applied to the project to bring it to completion.

As a project manager, understanding and being able to define project scope will give you a focus and sense of purpose when executing the project. Understanding the scope provides you with the foundations for managing project change and risk management. It enables goal setting and a timeline to work towards, as well as key points for reporting on the progress of the project to senior management and other stakeholders.

*GOALS -*

Goals are statements that describe what the project will accomplish, or the business value the project will achieve.

Goals are high level statements that provide overall context for what the project is trying to achieve, and should align to business goals.

One of the goals of a project might be to "increase the overall satisfaction levels for clients calling to the company helpdesk with support needs".

Because the goal is at a high-level, it may take more than one project to achieve. There may also be new procedures, new training classes, reorganization of the helpdesk department and modification of the company rewards system. It may take many projects over a long period of time to achieve the goal.

The goal should reference the business benefit in terms of cost, speed and / or quality. Even if the project is not directly in support of the business, there should be an indirect tie. For instance, an IT infrastructure project to install new web servers may ultimately allow faster client response, better price performance, or other business benefit. If there is no business value to the project, the project should not be started.

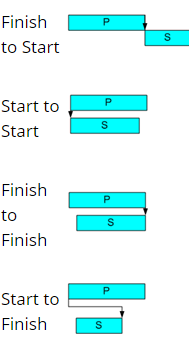
Generally, non-measurable: If you can measure the achievement of your goal, it is probably at too low a level and is probably more of an objective.

Goals are most important from a business perspective. The project manager needs to understand the business goals that the project is trying to contribute to.

1. **Explain the various types of dependencies between the tasks of a project.**

Ans: Dependencies are the relationships among tasks which determine the order in which activities need to be performed. There are four (4) types of dependency relationships.

Types of dependencies



Finish to Start –

Predecessor must finish before Successor can start. [Land must be purchased before road building can start]

Start to Start –

Predecessor must start before Successor can start. [Road excavating must start before Asphalt can be laid]

Finish to Finish –

Predecessor must finish before Successor can finish. [Laying Asphalt must be complete before line painting can be completed]

Start to Finish –

Predecessor must start before Successor can finish. [Road excavating must start before line painting can be completed]

Dependencies are the relationships of the preceding tasks to the succeeding tasks. Tasks may have multiple preceding tasks and multiple succeeding tasks. The most common dependency relationship is a finish-to-start relationship. Task P (predecessor) must be finished before task S (successor) can start. The least common relationship is the start-to-finish relationship. Project Insight, project management software, supports all four dependency relationships.

1. **Explain the various approaches for building a WBS.**

Ans: The activity-focused WBS approach -

This is the most common approach in the company. This approach mainly uses verb and noun. From the conceptual level of project scope, the work is gradually and sequentially divided into separate tasks, which could be managed and accomplished individually. While the top level presents the higher level overview, the bottom level presents the most detail tasks.

The activities clearly describe the “action”, i.e. “what to do”, yet it’d be easy for the project manager to focus too much on the activities and neglect the tangible and measurable deliverables.

The process-focused WBS approach -

Instead of focusing on the tasks covered by the project scope, this approach focuses more on the business processes which are required to accomplish the tasks defined in the project scope. Therefore, the deliverables will be analyzed according to each process individually. The combination of all the deliverables from each process will be the final deliverables for the project.

The advantage of this approach would be that it clearly depicted how things should be done. The disadvantage is that the analysis of each business process cannot tell an overall picture of project activities on a given stage.

The deliverable- focused WBS approach -

This approach only uses nouns instead of verbs. Rather than focuses on “what to do”, it focuses on “what should be done”. In other words, it cares more about the final deliverables instead of the actions leading to the deliverables.

It is a result driven approach, ensuring the deliverables satisfying the project requirements. However, the weakness would be that it’d result in too much focus on the trivial deliverables while neglect the efforts and the complexity of the tasks required to achieve the deliverables.

The outcome-focused WBS approach -

This approach focuses on the outcome, i.e. the desirable effect resulted from the activities. Based on the target outcome, the required tasks and activities are planned. The strength of this approach is that it directly targets at the desired effect; the weakness of this approach is that the “desired effect” is usually hard to define and measure. It’s not easy to tell what tasks could result in the desirable result.