PMP Bootcamp: Mastering Schedule Management – Planning & Defining Project Time

Student Name: _____ Date: _____

Instructions: Time is a critical constraint on almost every project. Schedule Management is about establishing the policies, procedures, and documentation for planning, developing, managing, executing, and controlling the project schedule. This worksheet focuses on the initial steps: planning how to manage the schedule and defining the activities that make up the project work.

Core Concept Reminder (from PMBOK 7 & Rita):

- **PMBOK 7th Edition:** The "Planning" and "Delivery" performance domains are central. Developing a realistic schedule that delivers **value** in a timely manner is key. "Tailoring" the scheduling approach (e.g., predictive waterfall vs. adaptive iterations) is emphasized.
- **Rita Mulcahy's PMP Exam Prep (11th Ed.):** Stresses that the schedule is more than just a list of dates; it's a dynamic tool for managing the project. Accurate activity definition is the foundation for a good schedule.

Part 1: Understanding Schedule Management – The Basics

1. **Key Definitions Related to Plan and Manage Schedule:**
    - **Activity:** A distinct, scheduled portion of work performed during the course of a project. (Often the result of decomposing work packages).
    - **Milestone:** A significant point or event in a project. It has zero duration and represents an achievement.
        - *Example:* "Design Phase Complete," "User Acceptance Testing Sign-off."
    - **Baseline (Schedule Baseline):** The approved version of the project schedule that can be changed only through formal change control procedures and is used as a basis for comparison to actual results.
    - **Lead:** The amount of time a successor activity can be advanced with respect to a predecessor activity. (Allows an overlap).
        - *Example:* Landscaping (successor) can start 2 days *before* the house painting (predecessor) is fully complete. This is a 2-day lead.
    - **Lag:** The amount of time a successor activity will be delayed with respect to a predecessor activity. (Forces a wait).

        - *Example:* Concrete must cure for 3 days (lag) *after* it's poured (predecessor) *before* framing (successor) can begin.
    - **Question:** What is the fundamental difference between an "Activity" and a "Milestone" in a project schedule?

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2. **Schedule Process Overview (Traditional/Predictive):**
   The typical flow of processes to create and manage a schedule includes:

1. **Plan Schedule Management:** (How will we do scheduling?)
2. **Define Activities:** (What work needs to be done?)
3. **Sequence Activities:** (In what order?)
4. **Estimate Activity Durations:** (How long will each take?)
5. **Develop Schedule:** (Combine all info into a schedule model)
6. **Control Schedule:** (Monitor progress and manage changes)

3. **Desired Outcomes of Effective Schedule Management:**
    - A realistic and achievable project schedule.
    - Clear understanding of task dependencies and critical path(s).
    - Improved resource allocation and coordination.
    - Ability to track progress and identify variances early.
    - Better communication of timelines to stakeholders.
    - Increased likelihood of on-time project completion.

Part 2: Planning How to Manage the Schedule – Plan Schedule Management

Purpose: The process of establishing the policies, procedures, and documentation for planning, developing, managing, executing, and controlling the project schedule.

1. **Why is it important to create a "Schedule Management Plan" *before* you start building the actual schedule?**

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2. **Schedule Management Plan (Output of this process):**
    - **What it is:** A component of the project management plan that establishes the criteria and the activities for developing, monitoring, and controlling the schedule.
    - **Key information it might contain (list three examples):**
      i. _____
      ii. _____
      iii. _____
      (Examples: Scheduling methodology and tool to be used, level of accuracy required for estimates, units of measure (e.g., hours, days), rules for establishing percent complete, control thresholds for schedule variances, reporting formats)
3. **Tailoring Schedule Management:**
    - **Predictive (Plan-Driven) Scheduling:** Typically involves detailed upfront planning, creation of a full project schedule with specific start/end dates for activities, and formal change control.
    - **Adaptive (Agile) Scheduling:** Focuses on short iterations (sprints/cycles) with a backlog of features. Detailed scheduling occurs for the current iteration. The overall product roadmap provides a longer-term view.
        - **Question:** How does an Agile team typically manage "schedule" within a sprint? (Think: Sprint Backlog, Daily Stand-ups)

    - **Hybrid Scheduling:** May use predictive methods for some phases (e.g., infrastructure setup) and adaptive methods for others (e.g., software feature development).

Part 3: Identifying the Work – Define Activities

Purpose: The process of identifying and documenting the specific actions to be performed to produce the project deliverables.

1. **Relationship to WBS:**
    - The **Work Breakdown Structure (WBS)** identifies the project deliverables and decomposes them into **work packages** (the lowest level of the WBS).

- The **Define Activities** process takes these work packages and decomposes them further into the schedule **activities** required to complete them.
- **Question:** If a WBS work package is "Install Kitchen Cabinets," what might be two or three *activities* derived from this work package?
  a. _____
  b. _____
  c. _____

2. **Tools & Techniques for Defining Activities:**
   - **Decomposition:** Subdividing project work packages into smaller, more manageable activities.
   - **Rolling Wave Planning:** An iterative planning technique in which the work to be accomplished in the near term is planned in detail, while work further in the future is planned at a higher level.
     - *Why is Rolling Wave Planning useful, especially for large or long projects?*

   - **Expert Judgment:** Input from team members or other experts familiar with similar work.
   - **Meetings:** To discuss and define the activities with the project team.
3. **Outputs (Artifacts) of Define Activities:**
   - **Activity List:**
     - **What it is:** A comprehensive list including all schedule activities required on the project.
     - **What information does it typically include for each activity?** (List two)
       i. _____
       ii. _____
       (Examples: Activity identifier, activity description, WBS ID it relates to)
   - **Activity Attributes:**
     - **What it is:** Provides more detailed information for each activity in the Activity List. These evolve over time.

- **What additional details might Activity Attributes include beyond what's in the Activity List?** (List two)
  i. _____
  ii._____
  (Examples: Predecessor/successor activities, leads/lags, resource requirements, constraints, assumptions, person responsible)

- **Milestone List:**
  - **What it is:** A list identifying all project milestones.
  - **Why is it important to identify and track milestones?**

- **Change Requests:** (If new work is identified that was not part of the WBS).

Part 4: Scenario & Application

Scenario: You are managing a project to organize a one-day company conference. One of the work packages in your WBS is "Secure Keynote Speaker."

1. **Schedule Management Plan:** What is one specific piece of guidance related to scheduling you would want to see in the Schedule Management Plan for this conference project?

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2. **Define Activities:**
   - Decompose the "Secure Keynote Speaker" work package into at least three distinct activities.
     a. _____
     b. _____
     c. _____
   - For one of those activities, list a potential "Activity Attribute."
     - Activity: _____
     - Attribute: _____

3. **Milestone:** What would be a logical milestone related to the "Secure Keynote Speaker" work package?

Key Takeaway: Planning how you will manage the schedule (Schedule Management Plan) and then thoroughly defining all the necessary activities are the critical first steps in developing a realistic and useful project schedule. These activities lay the foundation for all subsequent scheduling processes.