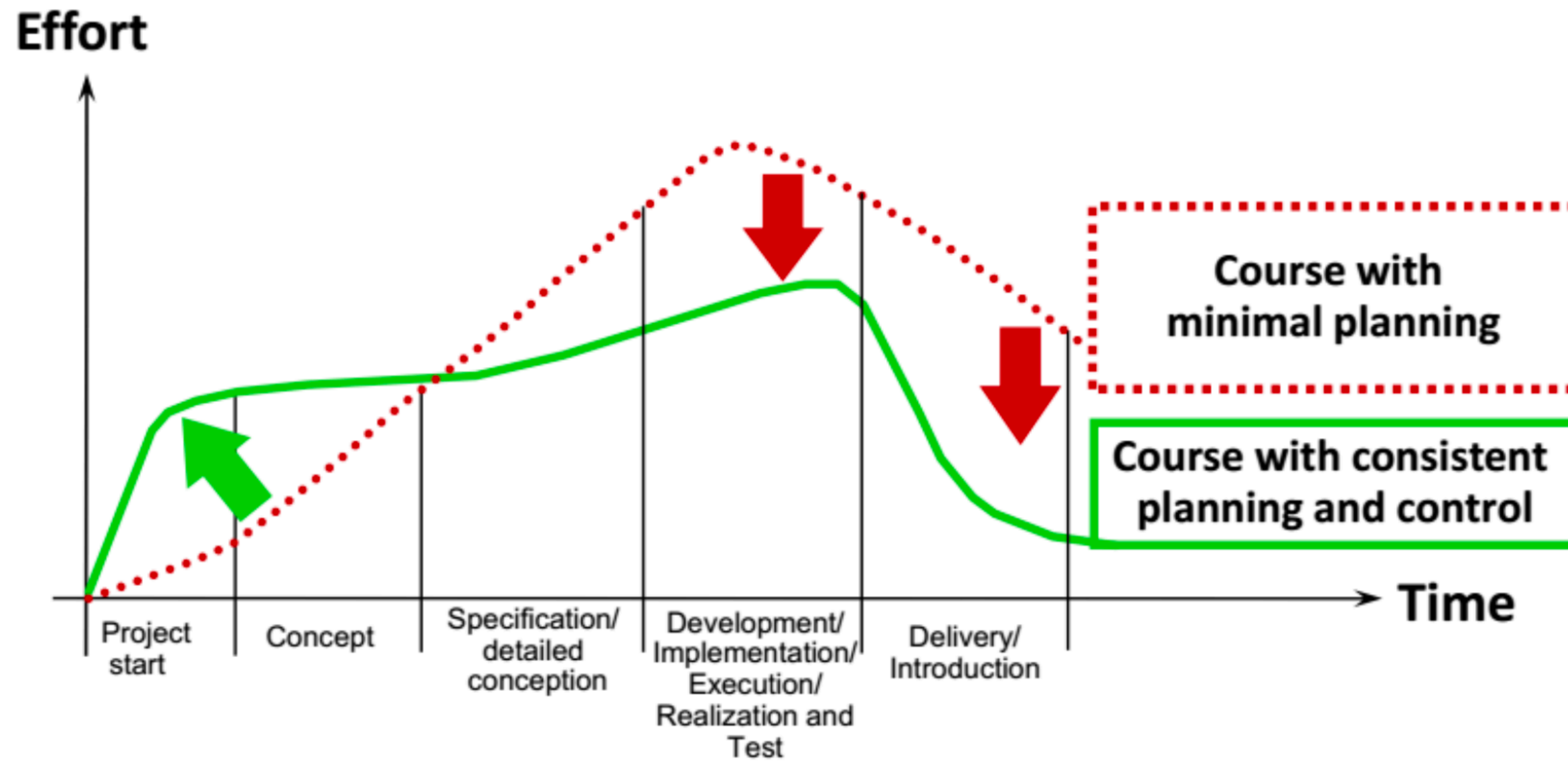# Time Management
Overview

- Importance

- Procrastination

- Task Planning

  - Eisenhower Matrix

  - Task Distribution & Delegation

- **Project Planning: Gantt Charts**

- Assignment

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Project Planning
Benefits

Effort

Course with minimal planning

Course with consistent planning and control

Project start | Concept | Specification/ detailed conception | Development/ Implementation/ Execution/ Realization and Test | Delivery/ Introduction

Time

Source: Jacques Boy, Christian Dudek, Sabine Kuschel: Projektmanagement, Gabal Verlag

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Project Planning
1. Work Breakdown Structure (WBS)

- The division of the project in, e.g., sub-projects, tasks and activities

  - A task is a work item with a specific purpose related to the larger goal

  - "8-80" Rule: the lowest level of work (e.g., task/activity) should be not less than 8 hours and not more than 80 hours

3

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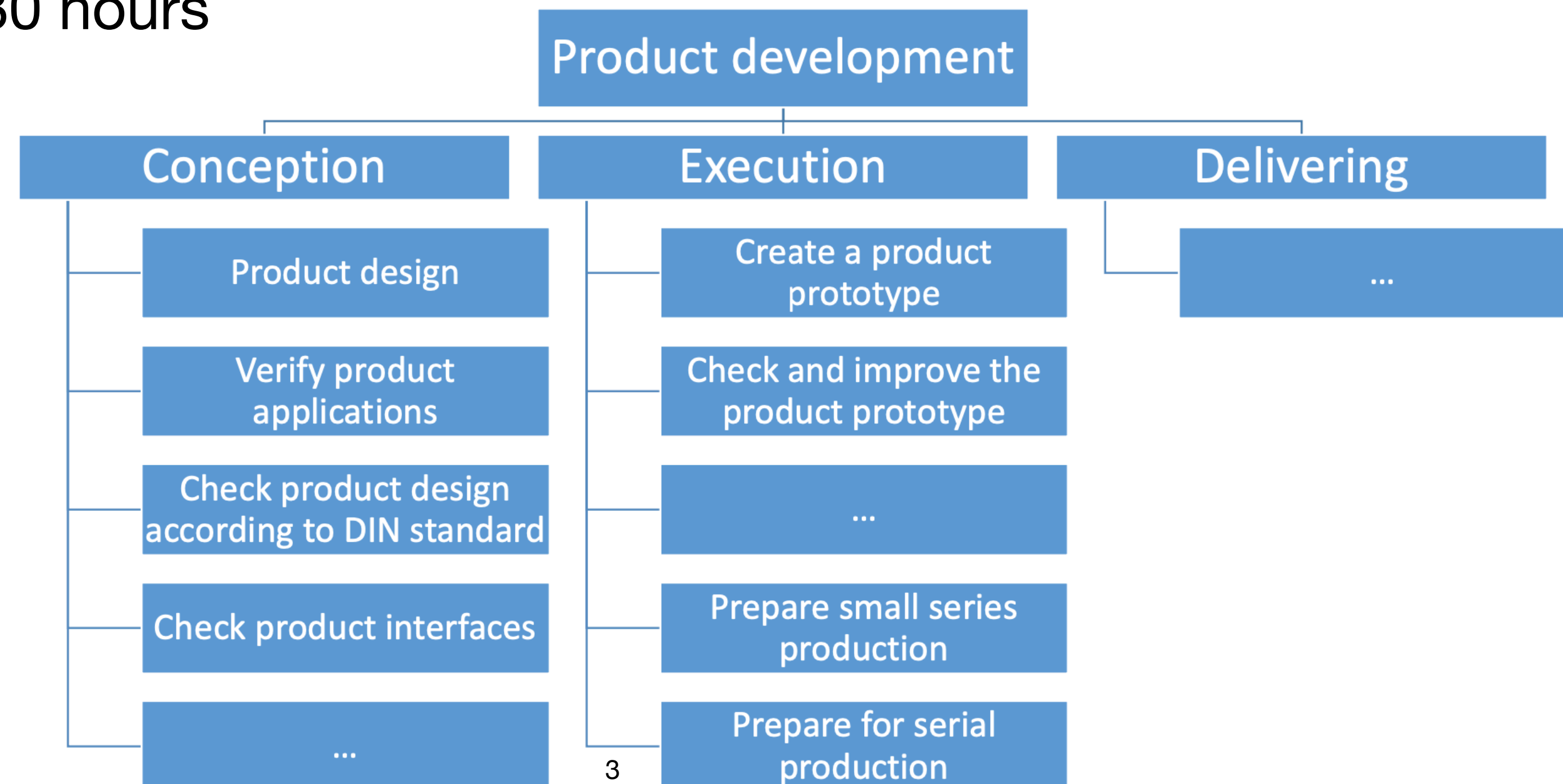
Project Planning
2. Schedule

- e.g., **Gantt charts**

  - Project schedule (not the project plan!)

    - Supporting document

    - NOT a framework for communication, providing comments, managing tasks at an individual level

  - High-level milestones & activities from start to finish

    - Low-level activities, e.g., Eisenhower matrix, ToDo lists

    - Show dependencies among activities (e.g., overlap of activities => need of risk mitigation)

  - Sequencing of events; Project timeline

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Gantt Charts
How to Create

1. Make a Task List (WBS)

2. What Are the Tasks' Start and End Dates?

3. Add Milestones

   • mark specific points (<>) along a project timeline

   • e.g., project start/finish, requirements gathering, site acquisition, deployment

4. Identify Task Dependencies

   • Finish to Start, Start to Start, Finish to Finish, Start to Finish

5. Assign Tasks

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Gantt Charts
Task Dependencies

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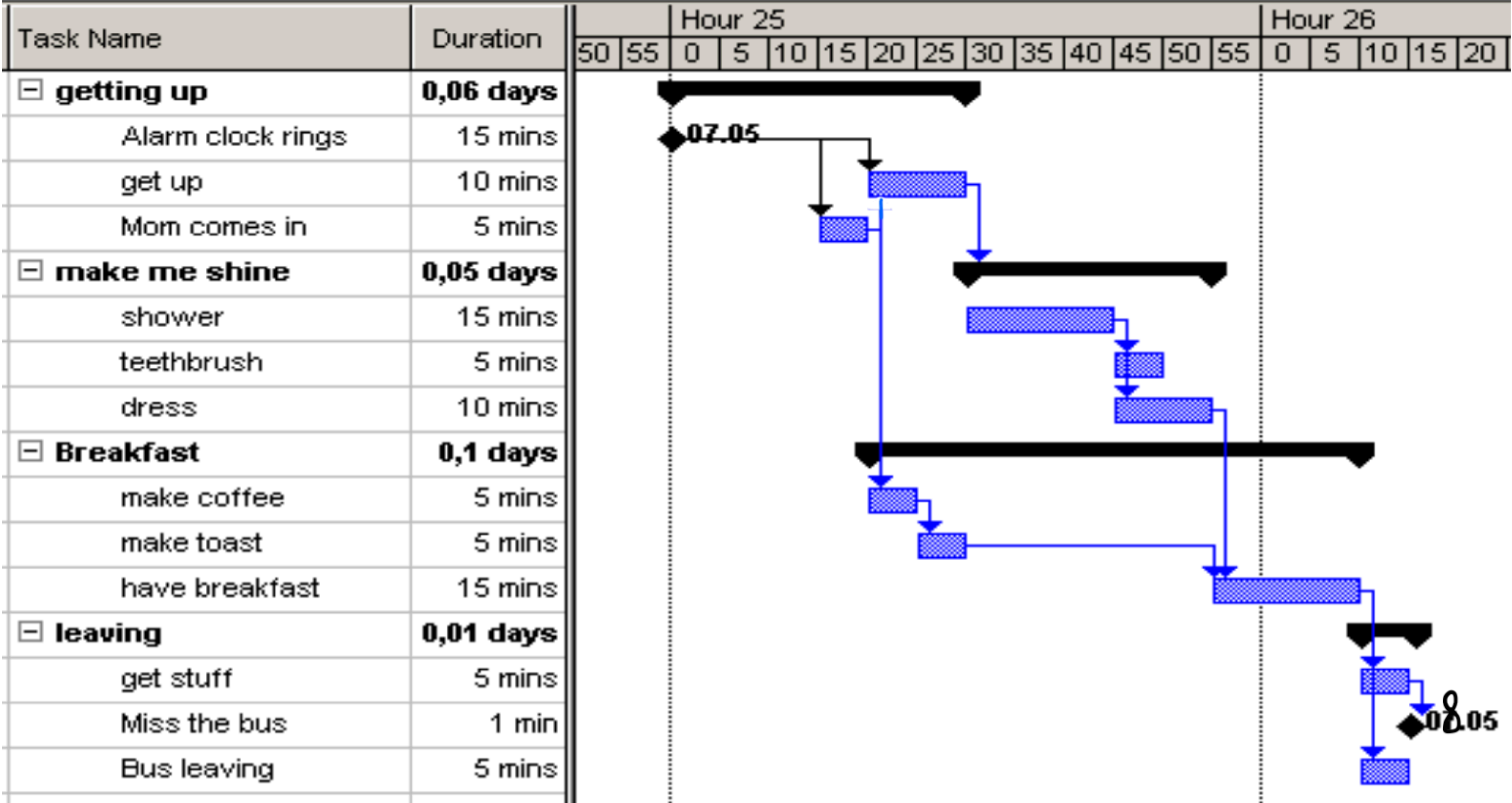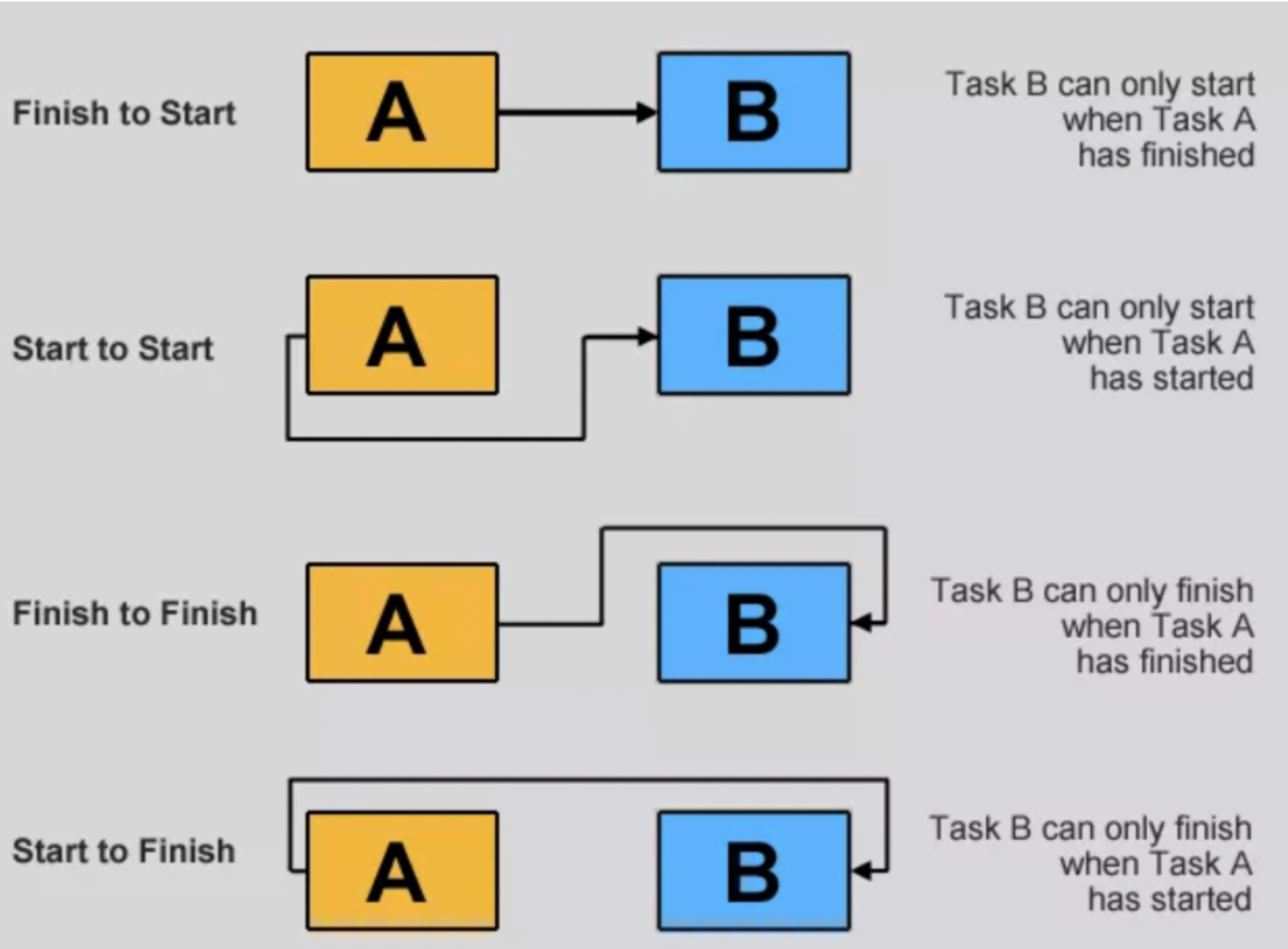
Gantt Charts
Tools

- Microsoft Excel, Microsoft Project

- Google Sheets

- Source: project-management.com

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Traditional vs. Agile Project Planning
In a Nutshell

- Traditional: all phases of a project occur in a sequence (Waterfall), depends on predictable experience, entire project planned upfront

- Agile: iterative process, promotes flexibility, incorporates user feedback

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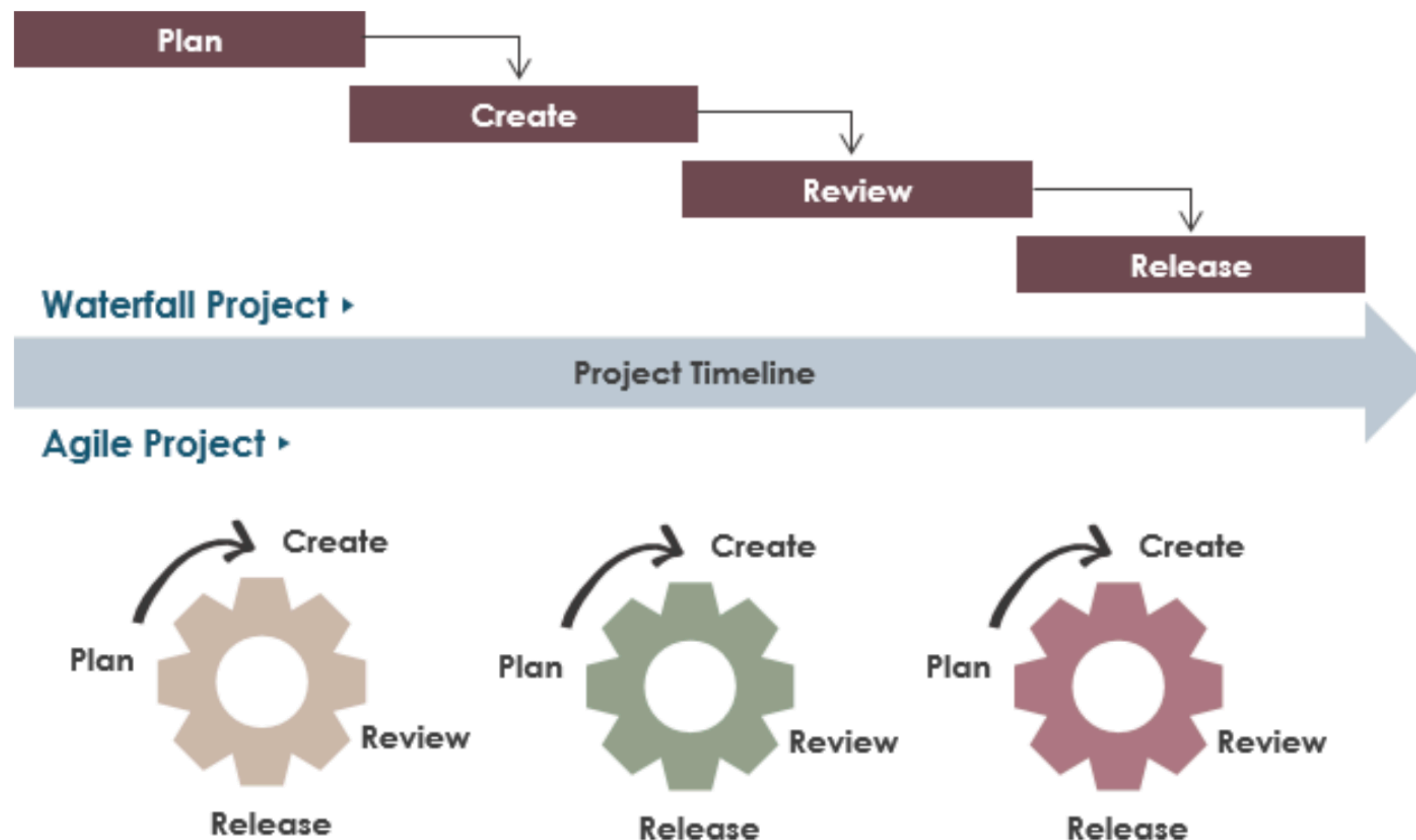
Traditional vs. Agile Project Planning

SIZE	METHOD	SUCCESSFUL	CHALLENGED	FAILED
All Size	Agile	39%	52%	9%
	Waterfall	11%	60%	29%
Large Size Projects	Agile	18%	59%	23%
	Waterfall	3%	55%	42%
Medium Size Projects	Agile	27%	62%	11%
	Waterfall	7%	68%	25%
Small Size Projects	Agile	58%	38%	4%
	Waterfall	44%	45%	11%

Figure 2: Agile Vs. Waterfall. Adapted from *2015 CHAOS Report,* by The Standish Group, 2015, retrieved from https://www.infoq.com/articles/standish-chaos-2015 Copyright 2015 by The Standish Group

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Task 3
Team Work

- Devise a Gantt Chart for the P-Project.

- Tips:

  - when devising your tasks & activities, think of the project development steps: requirements, design, implementation, testing, delivery

  - Consider a project duration of 4 weeks

  - Indicate the assignment of tasks (e.g., by indicating the name of the student(s) handling a particular task/activity); Example

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Multiplayer Game

Together with your partner, you have been hired to develop a platform for a client-server multiplayer game. Your customer has not decided on the game yet; at this point they are exploring the idea of a simple game with unambiguous rules.

The client-server architecture requires you to deliver two products: a client and a server. The server controls the game, and the client serves as one player of the game. Of course, the client and the server will need to be able to communicate with each other. Furthermore, your customer is very enthusiastic about the possibility of your client and server to communicate with the client and server of competitor companies. An opportunity for competition would be so much more fun! Last, but not least, you should not only be able to play the game as a human, your client should also be able to play by itself! This means your client needs to have a computer player.

The contract with your customer stipulates a fully functional client-server game implementation, that adheres to best coding standards and good practices. Your customer expects you deliver a preliminary design at the start of the project, together with a good documentation and a complete (design) report at the end. Finally, your customer demands for an extensively tested product.

A detailed description of the client and server functionality can be found in the M2 manual, starting on page 17.

You will have one day (in workshop 2) to meet your customer and understand her preliminary requirements. The actual implementation of the project (possibly addressing sudden changes in your customer's requirements) can take maximum four weeks; your budget runs out after that.

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Your Assignment

- Submit your answers to Tasks 1, 2 and 3 as a pair, in one PDF document, today, before 23:59h! A valid PDF explicitly states the names of all team members!

- Deliverables:

  - Task 1: for each member of the team, three kinds of study-related activities for which one suffers from procrastination. For each member of the team, activities are numbered 1–3 in order of severity.

  - Task 2: an Eisenhower matrix, consisting of 15-20 study-related tasks /activities that the team has to handle this week.

  - Task 3: a Gantt Chart for the programming project (duration 4 weeks, including tasks assignment)

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Good Luck!