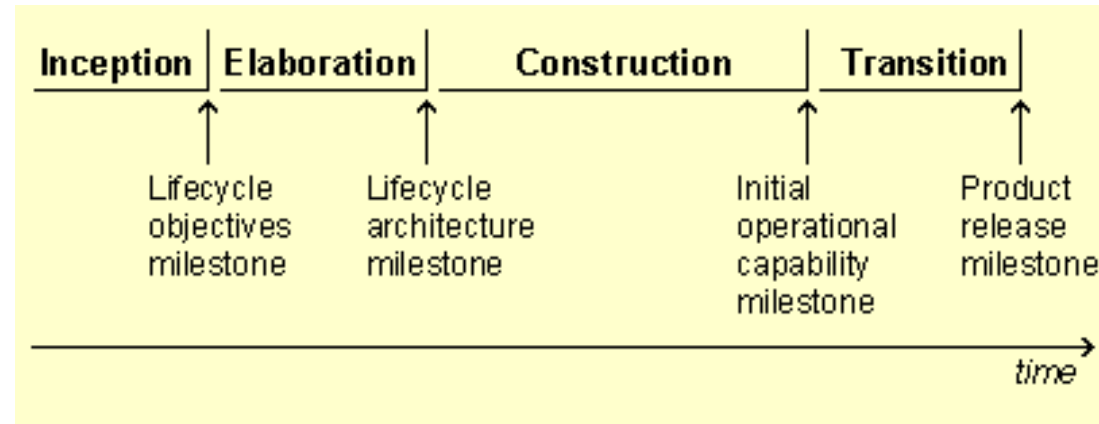# Project inception and elaboration phases

Projeto em Engenharia de Computadores e Informática – (LECI), Departamento de Eletrónica, Telecomunicações e Informática, Universidade de Aveiro

(2021)

Phases and milestones of a project (OpenUP)

source:
http://epf.eclipse.org/wikis/openup/practice.mgmt.risk_value_lifecycle.base/guidances/concepts/phase_milestones_5678231E.html

2

elaboration phase

The purpose is to establish the baseline of the architecture of the system and provide a stable basis for the bulk of the development effort in the next phase.

Get a more detailed understanding of the requirements.

Design, implement, validate, and establish the baseline for the architecture. **Design, implement, and test a skeleton structure of the system**.

Mitigate essential risks and produce accurate schedule.

source:
http://epf.eclipse.org/wikis/openup/practice.mgmt.risk_value_lifecycle.base/guidances/concepts/elaboration_phase_BE880435.html

3

Elaboration phase: requirements elicitation

Describe the requirements of system users, customers and other stakeholders

1. Requirements gathering

    Sources of information including interviews, questionnaires, user observation, workshops, brainstorming, etc.

2. Functional requirements

    What the system is supposed to accomplish, for example: business Rules, administrative functions, authentication and authorization levels, reporting, historical data, or Regulatory Requirements.

3. Context and State of The Art (SOA)

    How the system is expected to be used and what has been done in this context

Elaboration phase: requirements elicitation

4. Actors / Personas

   Describe the target users in your system.

5. Use cases

   Describe the interaction between users and the system to achieve specific goals. Tip: organize the use cases by packages.

   http://agilemodeling.com/artifacts/useCaseDiagram.htm

   https://www.visual-paradigm.com/guide/uml-unified-modeling-language/what-is-use-case-diagram/

6. Non-functional requirements

   Describe how the system works (while functional requirements describe what the system should do), for example: performance (e.g., response time, capacity , availability , recoverability, maintainability , security , data integrity , usability, or interoperability.

   do not forget assumptions and dependencies.

5

Elaboration phase: system architecture

Deployment diagram

Describe the hardware the software installed on that hardware and the middleware used to connect machines.

Include the technologies used in the system.

http://www.agilemodeling.com/artifacts/deploymentDiagram.htm

https://www.visual-paradigm.com/guide/uml-unified-modeling-language/what-is-deployment-diagram/

[Domain model]

A diagram capturing the main entities and relationships between them may also help in some systems.

http://agiledata.org/essays/agileDataModeling.html#InitialDomainModel

[User interaction]

Design mock-ups as soon as possible.

recommended to do list → milestone 2

Present a detailed State-of-the-Art and how your project relates to previous work

Requirement's elicitation

Define goals
Collect information: documents, interviews

Functional and non-functional requirements

Actors, uses cases and other

System Architecture

*Skeleton structure of the system **is tested**: system components can communicate with each other and a demo is required in milestone 2.*

Design mock-ups as soon as possible

>> remember: be proactive <<

Milestone 2

Prepare a 12 minutes presentation:

    Details on elaboration phase results are mandatory

    A demonstration to show that the main components of the architecture work together, or equivalent, is required.

First version of the report must be submitted until December 14. An example of the report structure:

    Abstract

    Introduction

    Related work, tools and technologies

    Requirements elicitation and architecture

    Expected results

Elaboration phase complete !