

16CSCI08I

Software Project

Management

Lab (3)

Topics to be covered:

- Work breakdown structure
 - Example
- Product breakdown structure
 - Example
- Exercises

Lab (3)

Breakdown Structures

Based on the previous labs, we have created a plan for the project and should have a good idea of the steps and deliverables involved in the project. That is the first step of planning.

We now move to a more detailed breakdown of the project as we specify the details and estimate the size of the project (in terms of lines of code) as well as the amount of effort (in terms of person hours) needed to complete the project.

A. Work breakdown structure:

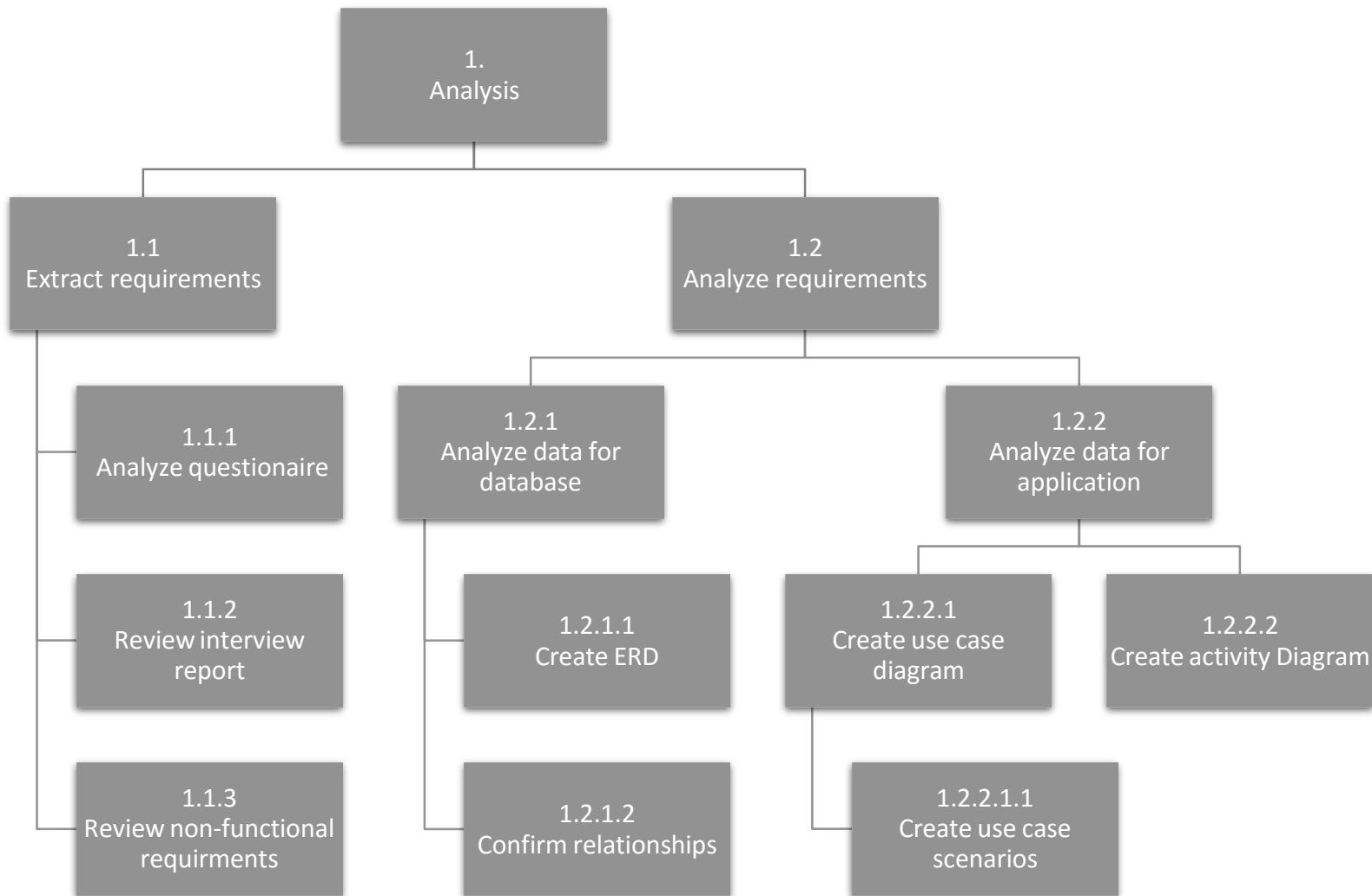
- Acronym used is WBS
- Divide the project based on the activities / phases that are to be completed
- The initial node is always the project name
- The second level of the breakdown usually represents the division of phases
- The third level involves / includes the tasks to be done for each phase
- There may be further levels of detail, depending on whether the tasks are further divided into sub-tasks or not

Example:

Assume we want to develop a banking system where clients may withdraw, deposit, and transfer significant sums of money. The system is intended to be simple, straightforward and easy to use.

In this case, for each phase of the project there is a WBS. After creating each of these WBSs, they are all aggregated into one WBS that represents the entire project.

The following is a WBS for the analysis phase. This is only part of the entire WBS:

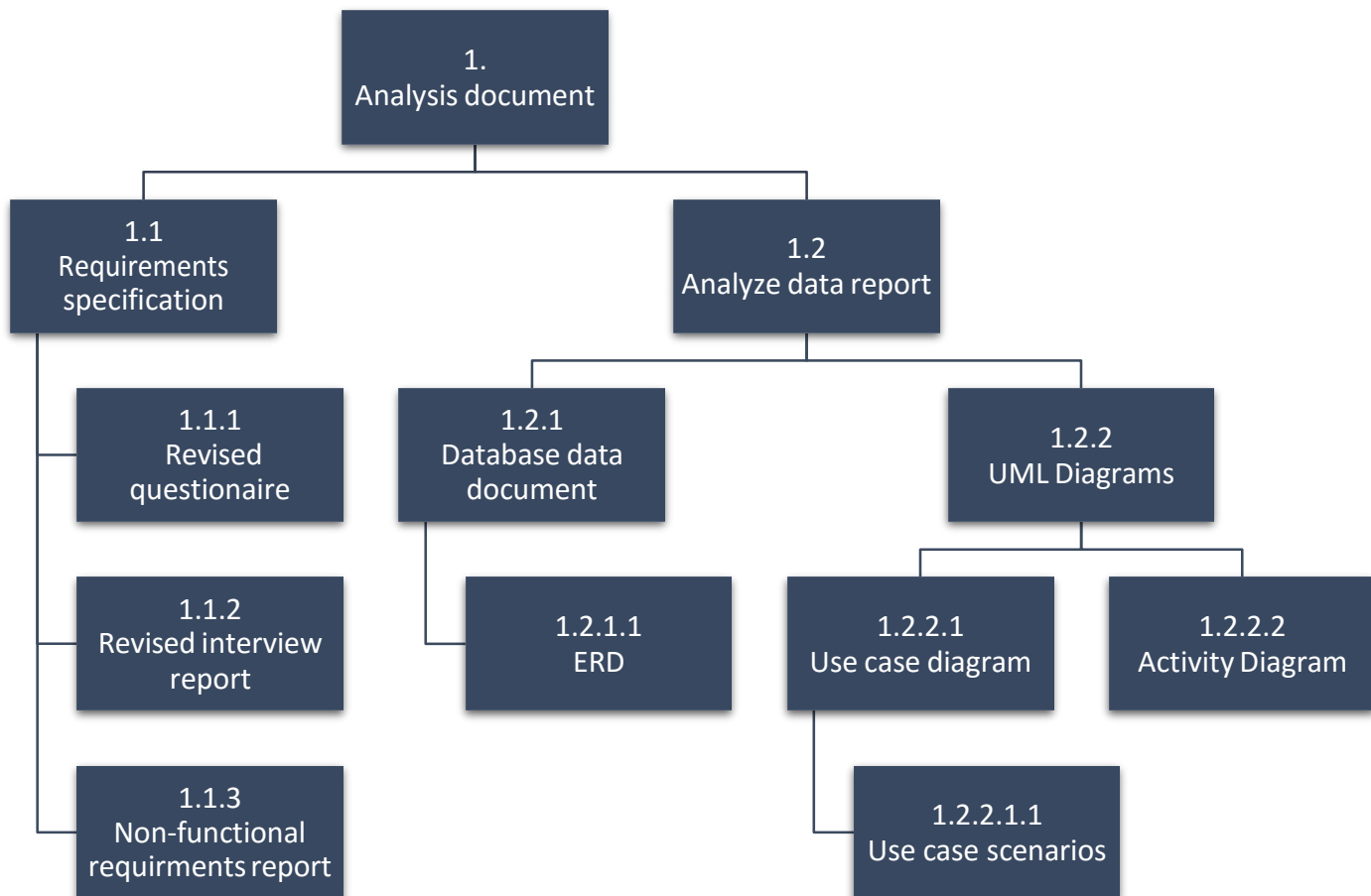


B. Product Breakdown structure:

- Acronym PBS
- Breakdown is product-based such that it is based on the actual deliverables rather than the tasks / activities to be performed
- The initial node is always the final product
- The second level usually represents the different types of deliverables
- The third level involves the detailed deliverables for each major deliverable

Example:

Based on the scenario that was used for creating the WBS, we will create a PBS for the analysis phase. In this case the PBS would show the deliverables that essentially represent, or rather are contained within, the analysis document.



Another example:

http://www.chambers.com.au/video_public/wbs_development_process.php

Exercises:

The Following link provide a small exercise for creating WBS.

<http://www.opentextbooks.org.hk/ditatopic/15829>

The following link provides a case study. Read the case study and create a WBS and PBS accordingly. There is no one right answer for such an exercise, as long as the diagrams are logical and follow the rules of each.

<http://bootstrapproject.blogspot.com/2010/04/lesson-12-charter-case-study.html>

After creating both the WBS and PBS, using the same case study, click on the following link and solve the provided questions bearing in mind what you have learnt about WBS and PBS:

<http://www.proprofs.com/quiz-school/story.php?title=lesson-15-quiz-building-wbs>

