

Project Scope Management

What is Project Scope Management?

- **Scope** refers to *all* the work involved in creating the products of the project and the processes used to create them.
- A **deliverable** is a product produced as part of a project, such as hardware or software, planning documents, or meeting minutes.
- Project scope management includes the processes involved in defining and controlling what is or is not included in a project.

Project Scope Management Processes

1. **Scope planning:** Deciding how the scope will be defined, verified, and controlled.
2. **Scope definition:** Reviewing the project charter and preliminary scope statement and adding more information as requirements are developed and change requests are approved.
3. **Creating the WBS:** Subdividing the major project deliverables into smaller, more manageable components.
4. **Scope verification:** Formalizing acceptance of the project scope.
5. **Scope control:** Controlling changes to project scope.

1. Scope Planning

- ❑ The **scope management plan** is a document that includes descriptions of how the team will prepare the project scope statement, create the WBS, verify completion of the project deliverables, and control requests for changes to the project scope.
- ❑ Key inputs include the project charter, preliminary scope statement, and project management plan.

2. Scope Definition

- ❑ The preliminary scope statement, project charter, organizational process assets, and approved change requests provide a basis for creating the project scope statement.
- ❑ As time progresses, the scope of a project should become clearer and more specific.

Further Defining Project Scope

Project Charter:

Upgrades may affect servers...

Preliminary Scope Statement:

Servers: If additional servers are required to support this project, they must be compatible with existing servers. If it is more economical to enhance existing servers, a detailed description of enhancements must be submitted to the CIO for approval. See current server specifications provided in Atch 6. The CEO must approve a detailed plan describing the servers and their location at least two weeks before installation.

Project Scope Statement, Version 1:

Servers: This project will require purchasing ten new servers to support Web, network, database, application, and printing functions. Two of each type of server will be purchased and dedicated to this project. Detailed descriptions of the servers are provided in a product brochure in Appendix 8 along with a plan describing where they will be located.

3. Creating the Work Breakdown Structure (WBS)

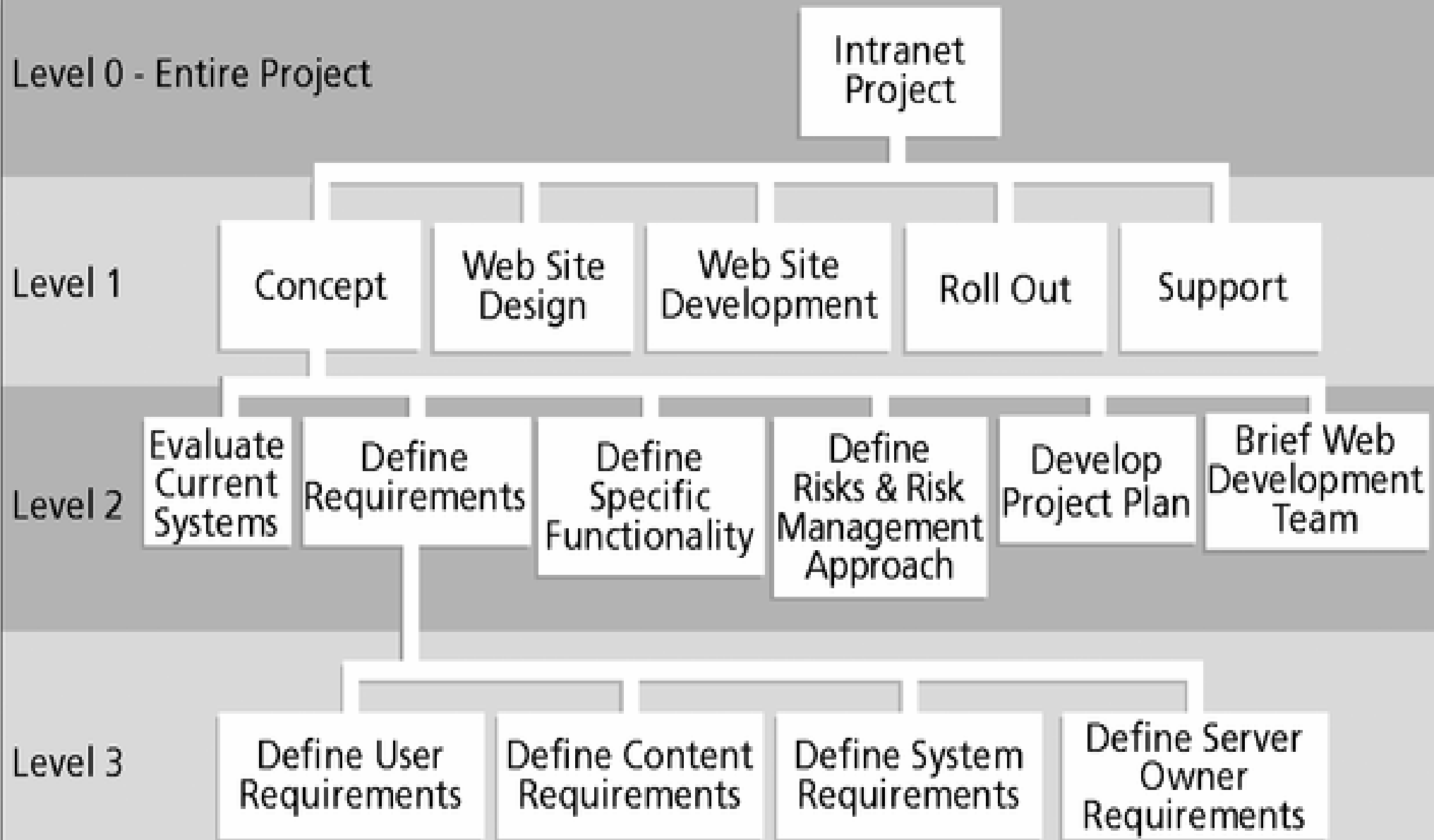
- ❑ A **WBS** is a deliverable-oriented grouping of the work involved in a project that defines the total scope of the project.
- ❑ A WBS is a foundation document that provides the basis for planning and managing project schedules, costs, resources, and changes.
- ❑ **Decomposition** is subdividing project deliverables into smaller pieces.

WBS in Tabular Form

1. Concept
 2. Evaluate current systems
 3. Define requirements
 1. Define user requirements
 2. Define content requirements
 3. Define system requirements
 4. Define server owner requirements
 4. Define specific functionality
 5. Define risks and risk management approach
 6. Develop project plan
 7. Brief Web development team
2. Web Site Design
3. Web Site Development
4. Roll Out
5. Support

Exam Hint !!

Exam Hint !!



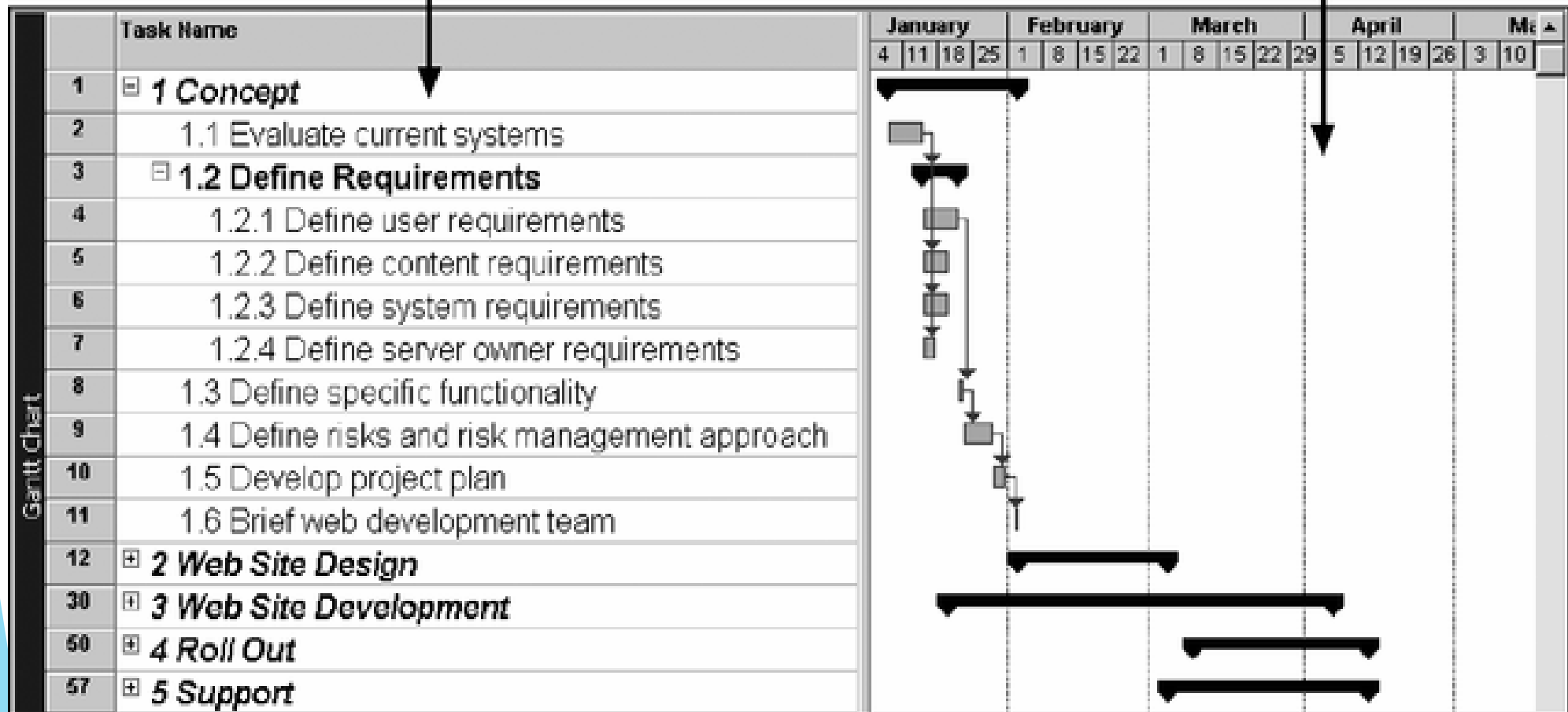
WBS in Diagram



WBS and Gantt Chart

WBS

Schedule



Approaches to Developing WBSs

- **Guidelines:** Some organizations provide guidelines for preparing WBSs.
- **Analogy approach:** Review WBSs of similar projects and tailor to your project.
- **Top-down approach:** Start with the largest items of the project and break them down.
- **Bottom-up approach:** Start with the specific tasks and roll them up.

4. Scope Verification

- It is very difficult to create a good scope statement and WBS for a project.
- It is even more difficult to verify project scope and minimize scope changes.
- Many IT projects suffer from scope creep and poor scope verification
 - FoxMeyer Drug filed for bankruptcy after scope creep on a robotic warehouse.
 - Engineers at Grumman called a system “Naziware” and refused to use it.
 - 21st Century Insurance Group wasted a lot of time and money on a project that could have used off-the-shelf components.

5. Scope Control

- **Scope control** involves controlling changes to the project scope.
- Goals of scope control are to:
 - Influence the factors that cause scope changes.
 - Ensure changes are processed according to procedures developed as part of integrated change control.
 - Manage changes when they occur.
- **Variance** is the difference between planned and actual performance.

Suggestions for Reducing Incomplete and Changing Requirements

Exam Hint !!

- ☐ Develop and follow a requirements management process.
- ☐ Use techniques such as prototyping, use case modeling, to get more user involvement.
- ☐ Put requirements in writing and keep them current.
- ☐ Create a requirements management database for documenting and controlling requirements.

Using Software to Assist in Project Scope Management

- Word-processing software helps create scope-related documents.
- Spreadsheets help perform financial calculations and weighed scoring models, and help develop charts and graphs.
- Communication software, such as e-mail and the Web, helps clarify and communicate scope information.
- Project management software helps create a WBS, the basis for tasks on a Gantt chart.
- Specialized software is available to assist in project scope management.

Summary

- ❑ Project scope management includes the processes required to ensure that the project addresses all the work required—and only the work required—to complete the project successfully.
- ❑ Main processes include:
 - Scope planning
 - Scope definition
 - WBS creation
 - Scope verification
 - Scope control