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Software Requirement Engineering

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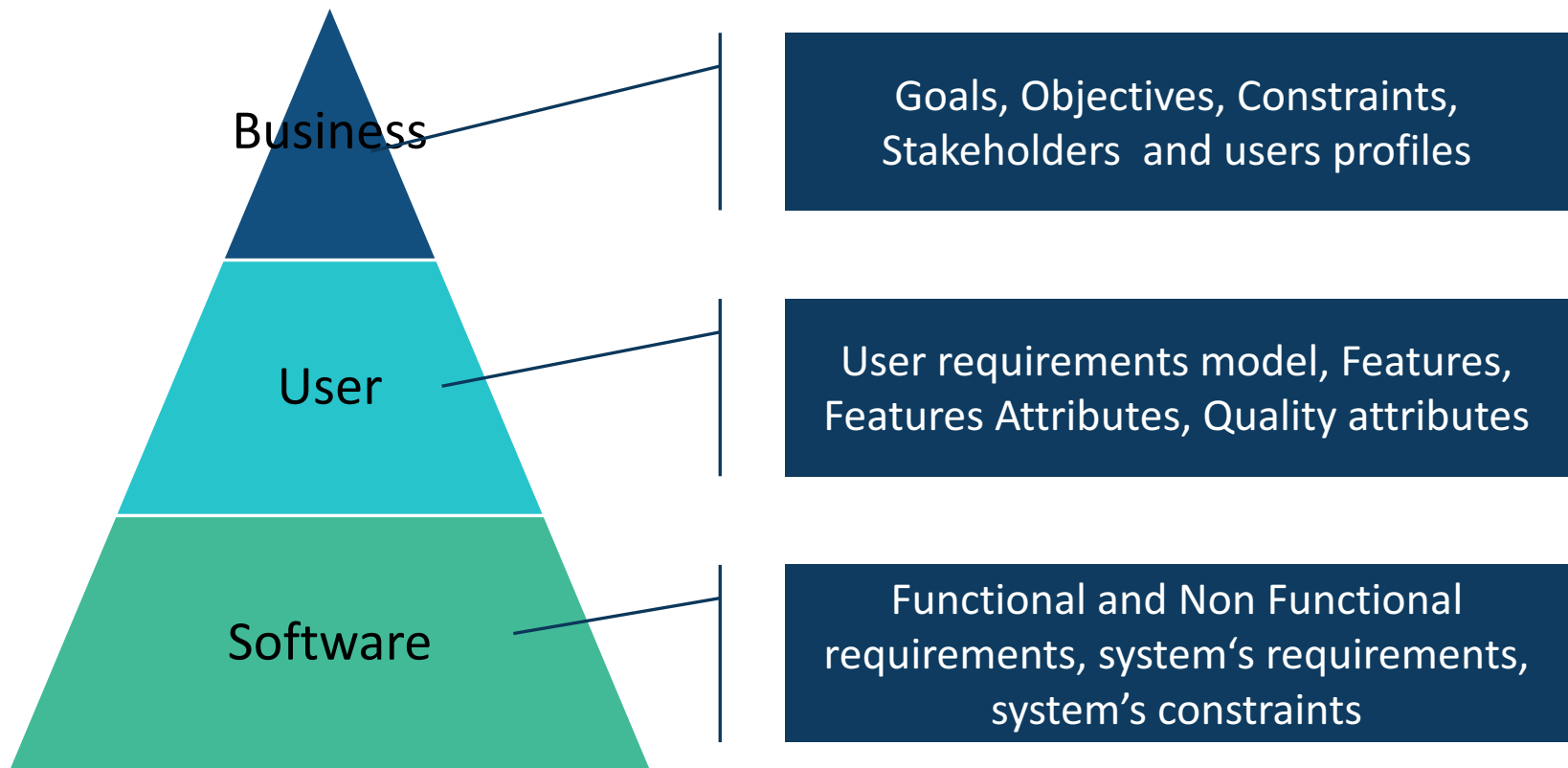
Requirements Workshop

- ❑ A collaborative technique for eliciting requirements
- ❑ **key stakeholders** of the project gather **together for a short, intensive period** (typically ≤ 2 days) to
 - ❑ encourage consensus on the requirements of the application, and
 - ❑ gain rapid agreement on a course of action, in short time.
- ❑ A structured, facilitated meeting in which a carefully selected group of stakeholders and content experts work together to define, create, refine, and reach closure on deliverables (such as models and documents) that represent user requirements.
- ❑ All members of a group share a common purpose (focus)

6Ps



Requirements Level



1.Purpose

- ❑ Why this workshop is being held?
- ❑ Essential for you to design workshop
- ❑ A statement in one to four sentences that state the reasons and justification for conducting a requirements workshop
- ❑ **Examples**
 - ❑ **Business-level** “Define the scope of health Information System”
 - ❑ **User-level** “Identify the major functions for the health Information System, and specify how user will interact with the system”
 - ❑ **Software requirements-level** “Specify details for how the dashboard functions will work, and obtain closure on these details”

How to identify the purpose?

☐ Ask questions to stakeholders

☐ System related questions

- ☐ Does the system have clearly defined goals?
- ☐ Is the scope clearly defined?
- ☐ Who is the sponsor?
- ☐ Does a formal business case exist?
- ☐ Are there related systems?
- ☐ Does this system span multiple lines of business or departments?

☐ Workshop related questions

- ☐ What is the problem, issue, or need that you have will be solved by workshop?
- ☐ What is at stake in this workshop?
- ☐ What will make workshop successful?
- ☐ What will make workshop failure?

2.Participants

- ☐ **People who play roles in the workshop, from workshop planning to post workshop follow up.**
- ☐ **The main people who will participate are those who have the content expertise to define requirements.**
- ☐ **Facilitator**
 - ☐ Plans and designs workshop; recommends appropriate requirements deliverables; leads process [Requirements/Business Analyst]
- ☐ **Contents participant**
 - ☐ Create workshop products [business actors/workers, domain experts]
- ☐ **Recorder**
 - ☐ Records the group's work [Requirements Analyst, Admin Assistant]
- ☐ **Observer**
 - ☐ Listens and learns [Sponsors]
- ☐ **On call subject matter experts**
 - ☐ Is available to answer or clarify spontaneous questions [Business Actors, Project Manager]

How to identify participants?

☐ Ask stakeholders

- ☐ What is your role in the organization and this system?
- ☐ Who should participate in this workshop? Why?
- ☐ Who are the people who can represent the needs of direct users of the System?
- ☐ Whom do you view as decision makers about scope, correctness, or completeness of the requirements?

3.Principles

- ❑ Groups need interaction precepts to maintain socially acceptable behavior that promotes workshop goals i.e., delivering predefined work products in the allotted time.
- ❑ Principles or ground rules are codes of conduct to which your workshop participant agree to adhere.
- ❑ Examples
 - ❑ Input from all participants is equally valued
 - ❑ Discussion and criticism will focus on interests and not on people
 - ❑ The group is responsible for the deliverables

4.Products

☐ Inputs

- ☐ The workshop agenda
- ☐ Draft requirements models
- ☐ Systems and user documentation
- ☐ The result of pre-work
- ☐ Templates
- ☐ Workshop aids

☐ Outputs

- ☐ Requirements model
 - ☐ Domain model, Use case model, Object Model, ...
- ☐ Statements of issues
- ☐ Follow up actions

Determining the products – Ask stakeholders

- ☐ What deliverables do you expect to produce in the workshop?
- ☐ How much detail should each deliverables have?
- ☐ What criteria will you use to know that the deliverables are complete, clear, and correct?
- ☐ What decisions should be made in the workshop?
- ☐ What modeling notations, if any, do you prefer?
- ☐ What templates or formats are you using for requirements (for example, use cases or business rules templates)?

Determining the products – Ask stakeholders

- ☐ Do you have sample requirements documents or models that have been successful in the past that we can use as examples?
- ☐ How familiar are the project staff with requirements methods and models?
- ☐ Which requirements deliverables are most critical to the project? Why?
- ☐ Will anyone use any of the requirements models (text or visual) for downstream work such as prototypes or design?
- ☐ What starting points do you have for creating the deliverables?
- ☐ Will you or others be available to create draft requirements before the workshop?
- ☐ Will we conduct multiple workshops, or create all the products in one workshop?

5.Places

☐Physical space that is conducive to group work

☐Consider

☐Location

☐Size

☐Wall space

☐Equipment

☐Seats, tables, and ergonomics

☐Food and drink

5.Places

- ☐Get approvals
- ☐Reserve the room
- ☐Order refreshments
- ☐Create map and instructions on the site
- ☐Notify participants about the location
- ☐Create posters for the workshop rooms

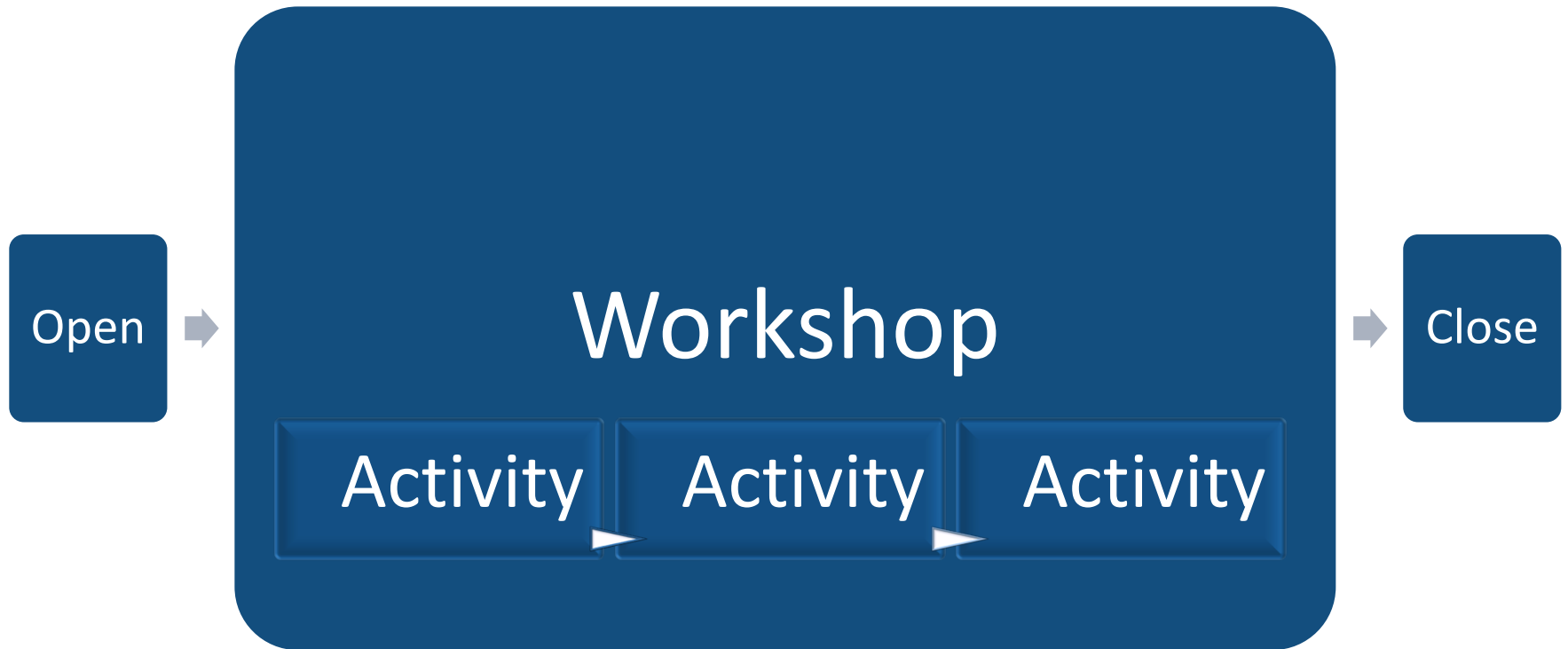
Setting up workshop room

- ☐ Post welcome sign or poster outside the room.
- ☐ Post “Workshop Purpose” poster.
- ☐ Post “Workshop Products” poster.
- ☐ Post “Agenda” poster.
- ☐ Post “Ground Rules” poster if drafted before the workshop.
- ☐ Arrange tables into “U” shape.
- ☐ Set up sticky wall or wall areas for sticky notes.

Setting up workshop room

- ☐ Set up recorder's work area.
- ☐ Set up and test local printer.
- ☐ Set up and test projection system.
- ☐ If there is a phone in the room, set it to “no ring” or pull plug.
- ☐ Set up a table in the corner for refreshments.
- ☐ Put out cups with black and colored markers.
- ☐ Post blank posters you will use, such as “Parking Lot,” “Actions,” “Decisions.”
- ☐ Arrange for chairs in back of the room for any observers.

6.Process



Opening workshop

- ☐ Welcome and kickoff by sponsor
- ☐ Explain the roles of the facilitator and recorder
- ☐ Review workshop purpose and products
- ☐ Review (and revise, as necessary) the ground rules
- ☐ Explain the workshop process and describe how each agenda item will be handled
- ☐ Review any time constraints
- ☐ Tell everyone about the essentials (food, drinks, toilets, and breaks)
- ☐ Conduct an opener/icebreaker

Designing Activities

- ❑ An activity is a process that transforms inputs such as draft models, templates, and examples into outputs.
- ❑ **Each activity should specifically address a topic or deliverable**
 - ❑ Define system context; Define events within scope; name use cases
- ❑ **Sequence activities**
 - ❑ Don't overload
- ❑ **Framing activities**
 - ❑ Explicit start and end points
 - ❑ Tell what has just happened, what's about to happen, how the next activity relates to the workshop purpose, and what will be the process to build the deliverables

Designing Activities

☐ Estimating activity time

- ☐ Consider # of deliverables, # of elements you might need to elicit for each deliverable
- ☐ Allow 5-15 minutes before and after each activity for start and stop steps.

☐ Using focus questions

- ☐ Ask question to direct participants attention to a specific topic at the start of each workshop activity

☐ QA as you go

- ☐ Check quality before seeking closure
- ☐ Checklists

Workshop activity design template

Workshop _____
Activity _____
Planning Team Names _____

Steps/ Time	Tasks	Inputs	Focus Questions	Interaction Format (Individual, Subgroup, or Whole Group)	Deliverable	
					<i>Content</i>	<i>Format</i>

Workshop Agenda Template

<company> Workshop <project name>

Logistics

Date	Time	Place	Food	Dress

Workshop Information The following table provides basic information about the workshop. Add other information, such as background or project information, as warranted.

Workshop Purpose	<insert purpose in 2–4 sentences>
Products: Tangible Outcomes	<list>
Products: Intangible Outcomes	<list>
Principles (Ground Rules and Decision Rule)	<list>

Workshop Tools

The following is a list of workshop tools—documents, draft models, templates (such as use case templates and business rules templates), and workshop aids (such as sample models, instructions for subgroup work, requirements prioritization schemes, quality assurance checklists, and deliverable templates)—prepared by the planning team to accelerate the workshop and help participants to complete deliverables.

Participants Pre-work

<list>

(Bring this along with any supporting material you need)

Workshop Agenda

The following list shows the workshop activities in order. Optionally, include a list of tasks for each workshop activity.

Timing	Activity	Deliverable(s)

Closing workshop

☐ Show-and-tell

- ☐ Participants Show and tell to the sponsors and other stakeholders – what they created, how they did it, what they learned, what issues and concerns they have
- ☐ Prepare (45 min)
- ☐ Conduct (30 min)

☐ Review and make decisions about the parking lot and issues list

- ☐ Assign it to a participant to follow up

☐ Review actions and decisions

☐ Conduct a final workshop debrief

- ☐ Allow 30 min
- ☐ Every participant writes on a sheet “Things that worked” and “Things we did not do well”

Workshop Tips

- ☐ Plan an appropriate opener to get the group comfortable and engaged
- ☐ Design activities for groups of related requirements
- ☐ Build in quality checking of workshop deliverables
- ☐ Continually check on the effectiveness of the workshop process
- ☐ Use mini tutorials and focus questions to jump start requirements modeling tasks
- ☐ Limit off track discussion
- ☐ Address conflict directly and openly
- ☐ Make the workshop fun
- ☐ Always debrief after workshop