

EPIC

Effective Professional Inspiring Competent

Project Management

Fundamentals

Scope Management

Agenda

- ❖ **Scope Management**
- ❖ **Requirements Gathering**
- ❖ **Work Breakdown Structure (WBS)**
- ❖ **Scope Baseline**
- ❖ **Scope Creep**

Scope Management

Product Scope vs Project Scope

1 line statement of project:

I want 2 scoops of vanilla ice cream with hot chocolate sauce

What is the **Product Scope** & **Project Scope**?

Product Scope

- 2 scoops of Vanilla ice cream
- Hot Chocolate sauce on ice cream

Deliverables with associated
features & functions

Project Scope

- Deliver 2 scoops of vanilla ice cream with hot chocolate sauce
- Make Scoop measure
- Make Vanilla ice cream
- Make hot chocolate
- Assemble in a cup
- Do quality check
- Share hourly status report
- etc

Product Scope + Work to be done
to deliver product scope

Definition

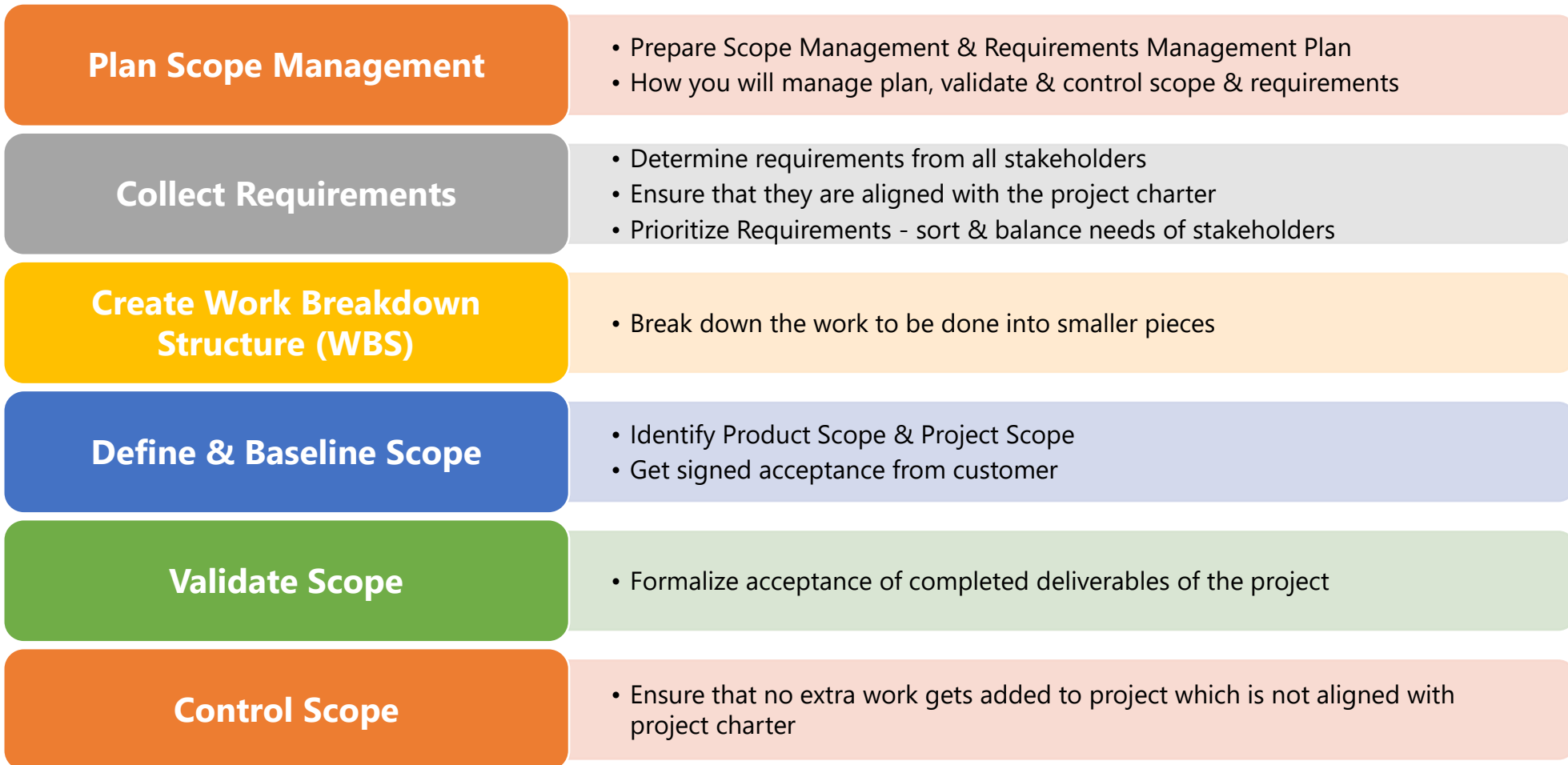
Scope

Total **outputs, outcomes and benefits** and the **work** required to produce them.

Scope Management

Process whereby the outputs, outcomes and benefits are **identified, defined and controlled**.

Scope Management



Plan Scope Management

Plan Scope Management

**Preparing a Scope Management Plan
to document how project scope will be defined, validated & controlled**

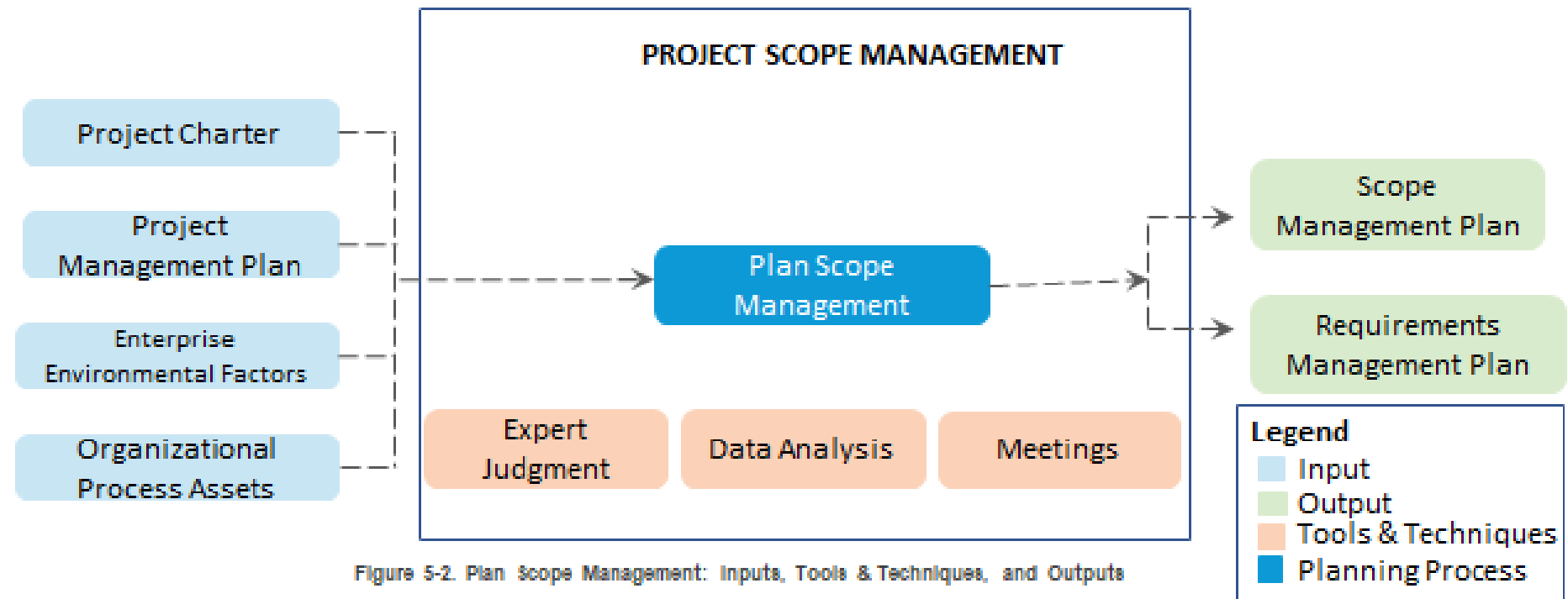


Figure 5-2. Plan Scope Management: Inputs, Tools & Techniques, and Outputs

Collect Requirements



Plan A Trip!

Imagine that you are an ardent traveler. You have visited many beautiful places and your friends know this about you.

You & your friends decide to plan a family trip together. Since you are the “Travel Man” they make you the Project Manager for this project.

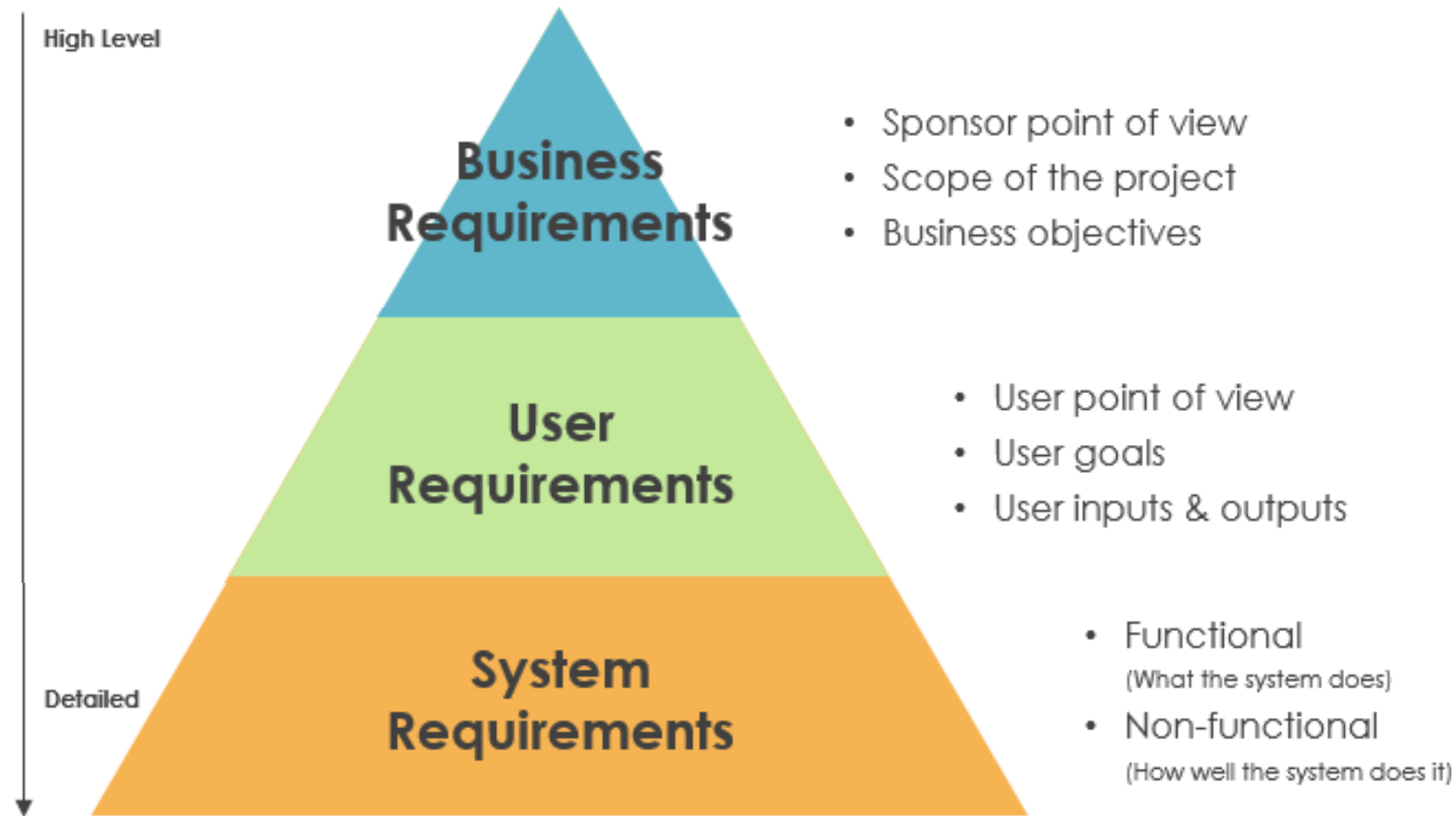
Discuss with your friends & identify their requirements.

Plan A Trip!

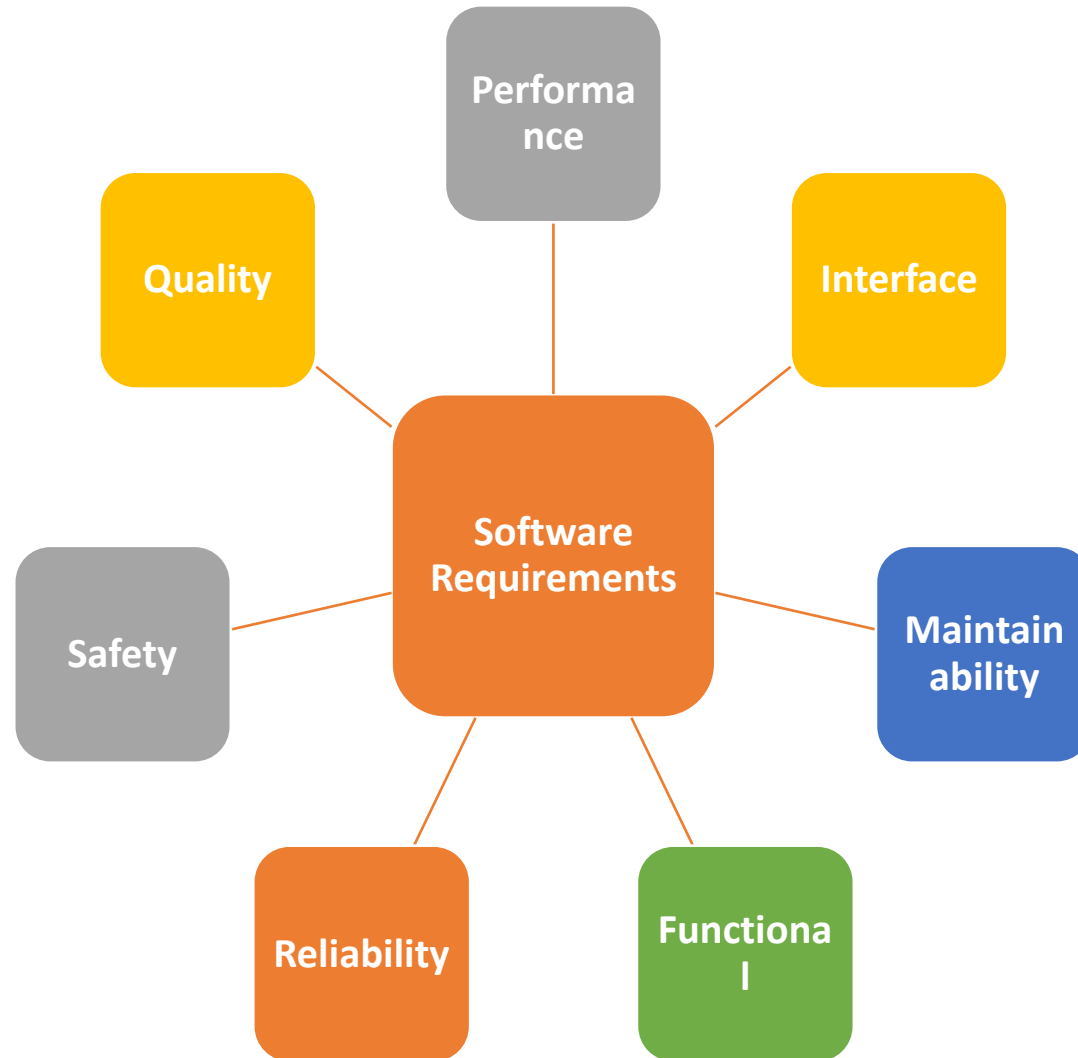


**What Type of Requirements
did you collect?**

Types of Requirements



Types of Requirements



Plan A Trip!



**What tools & techniques
did you use?**

Brainstorming

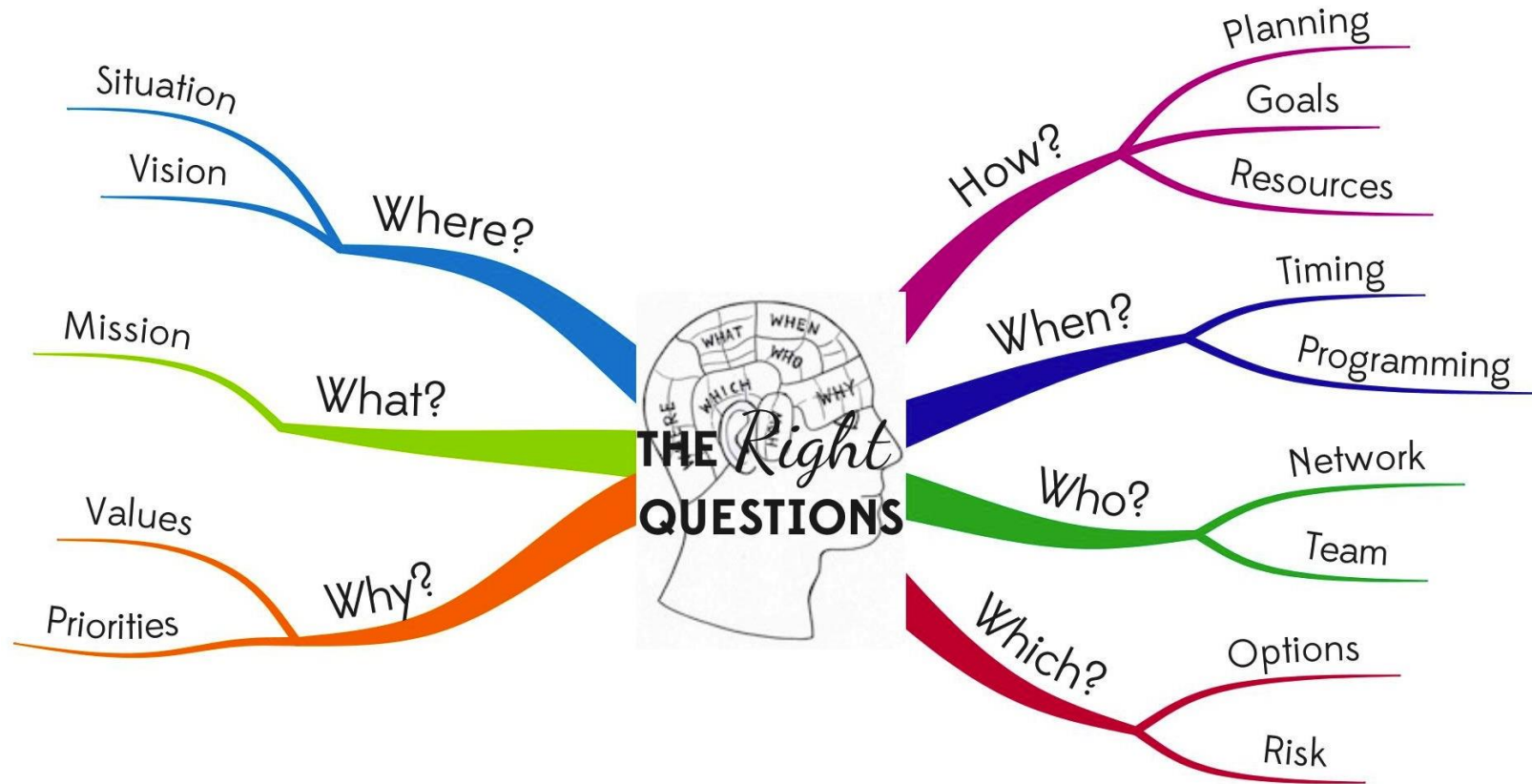


Brainstorming is a **group problem-solving** method that involves the spontaneous contribution of **creative ideas and solutions**.

This technique requires intensive, **freewheeling discussion** in which every member of the group is encouraged to **think aloud** and suggest as **many ideas** as possible based on their **diverse knowledge**.

Q2

Mind Maps



A Mind Map is an **easy** way to brainstorm thoughts organically without worrying about order and structure.

It allows you to **visually structure your ideas** to help with analysis and recall.

Benchmarking

Benchmarking is a process where you **measure your company's success** / product's features **against competitors** to discover requirements or how you can improve

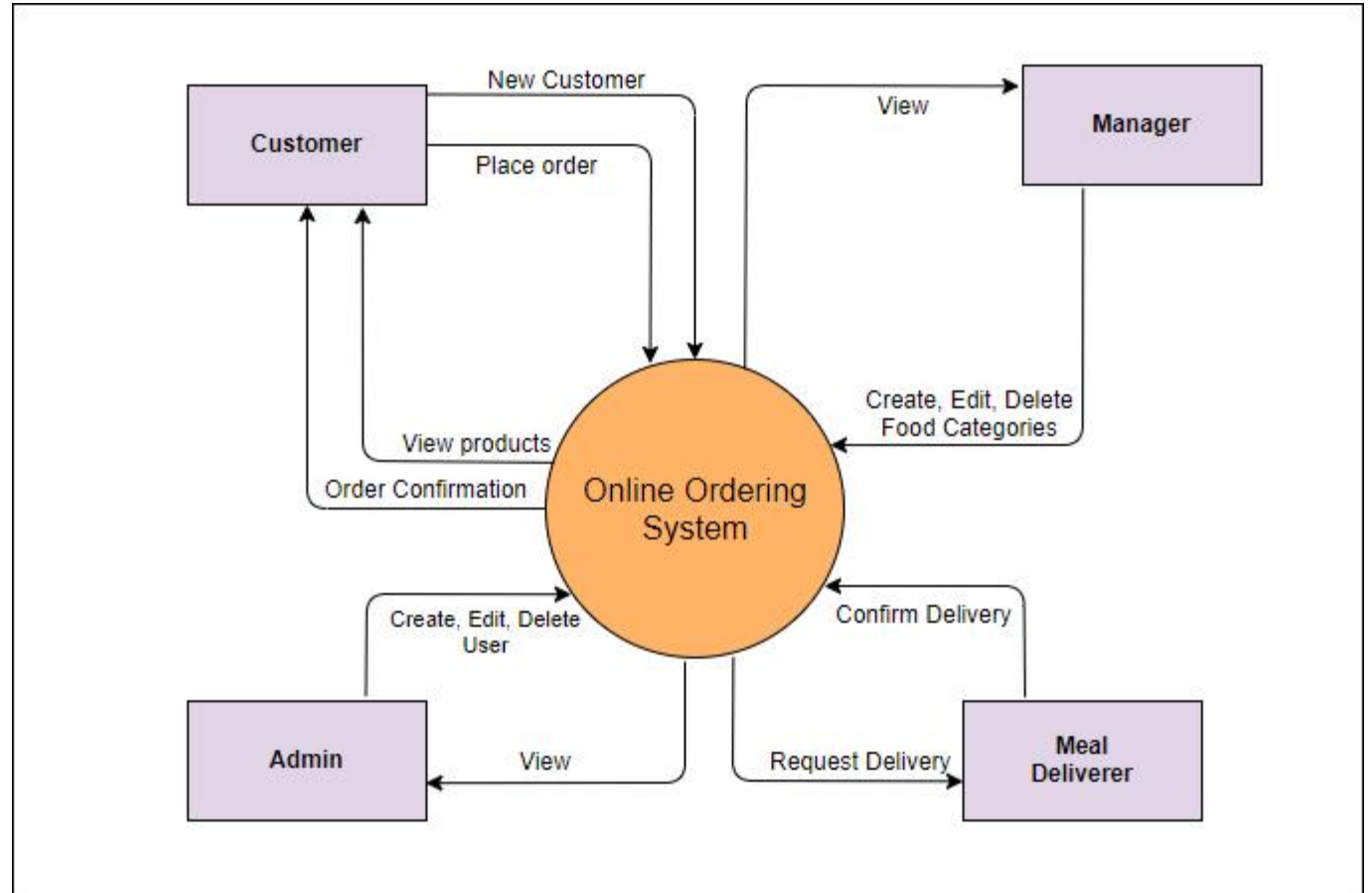


Context Diagram

The Context Diagram shows the **system under consideration** as a single high-level process

and then shows the **relationship** that the system has with other **external entities**

(systems, organizational groups, external data stores, etc.).

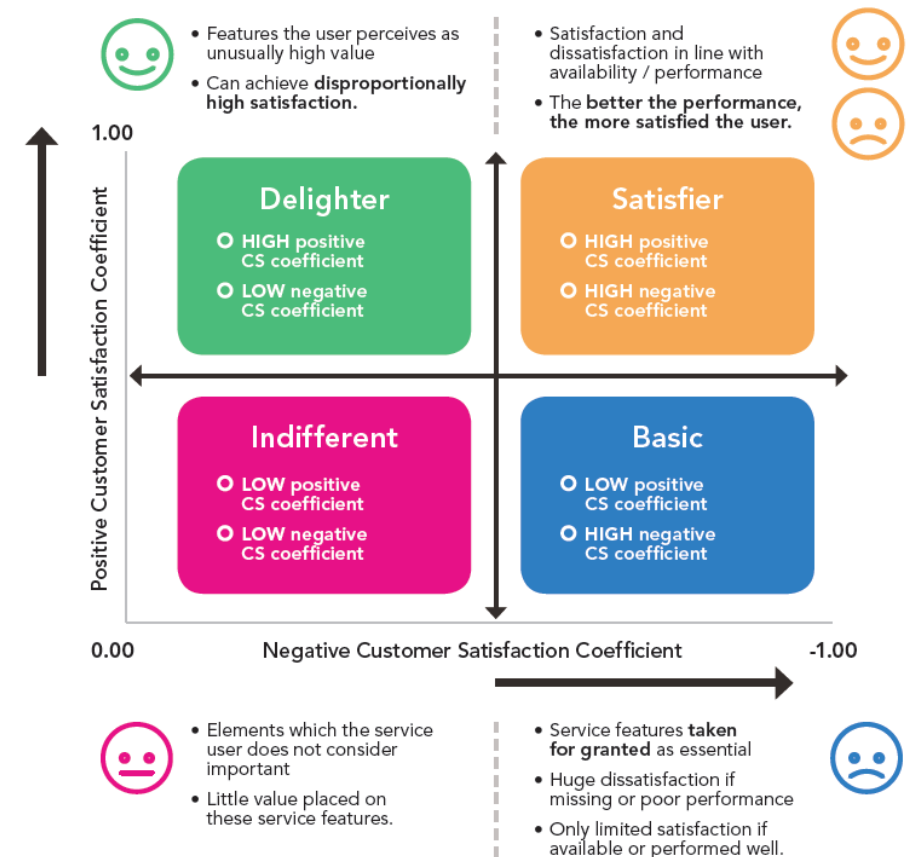


Prioritize Requirements

MoSCoW



KANO



Requirements & Specifications

Requirement	Specification
Low cost	$\leq \$300$ USD
Light weight	≤ 25 lbs
Long lifetime	3 yr minimum
High anatomical fidelity	Rating ≥ 4 evaluation scale
High procedural fidelity	Rating ≥ 4 evaluation scale
Includes a feedback system	100% correct feedback
Ease of use/assemble	Rating ≥ 4 evaluation scale
Maintenance	$< 1 \times$ per year
Easily cleaned	100% of materials cleanable with common household supplies

Create Work Breakdown Structure (WBS)

Plan A Trip!



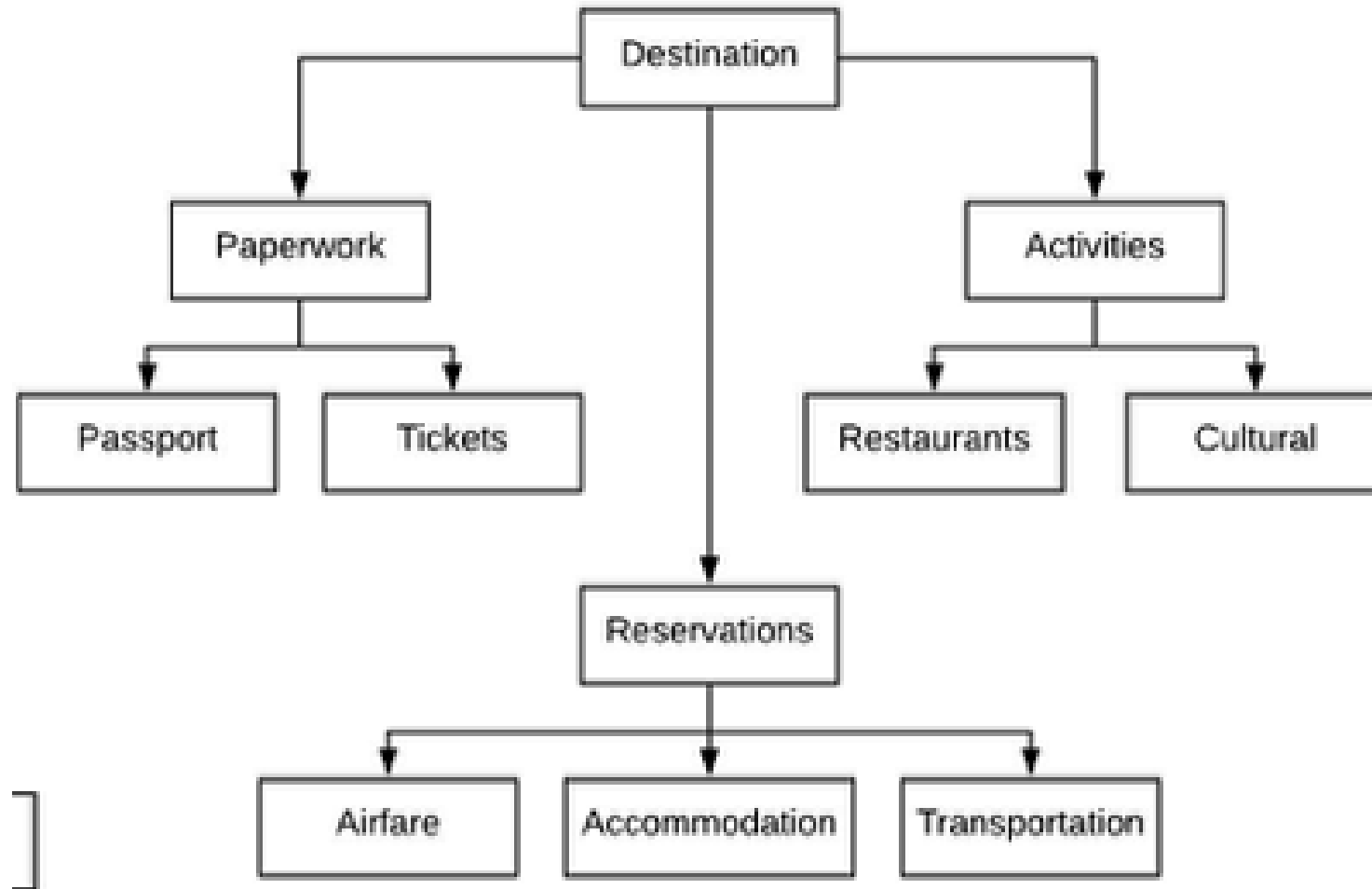
Prepare the list of activities that you need to do for this project.

Use grouping & hierarchy wherever necessary.



Divide and subdivide the project scope and deliverables into smaller, more manageable parts

Work Breakdown Structure - Vacation



Decompose Work in the WBS

WORK BREAKDOWN STRUCTURE (WBS)

A **hierarchical decomposition** of the **total scope of work** to **accomplish the project objectives** and **create the deliverables**.

Steps:

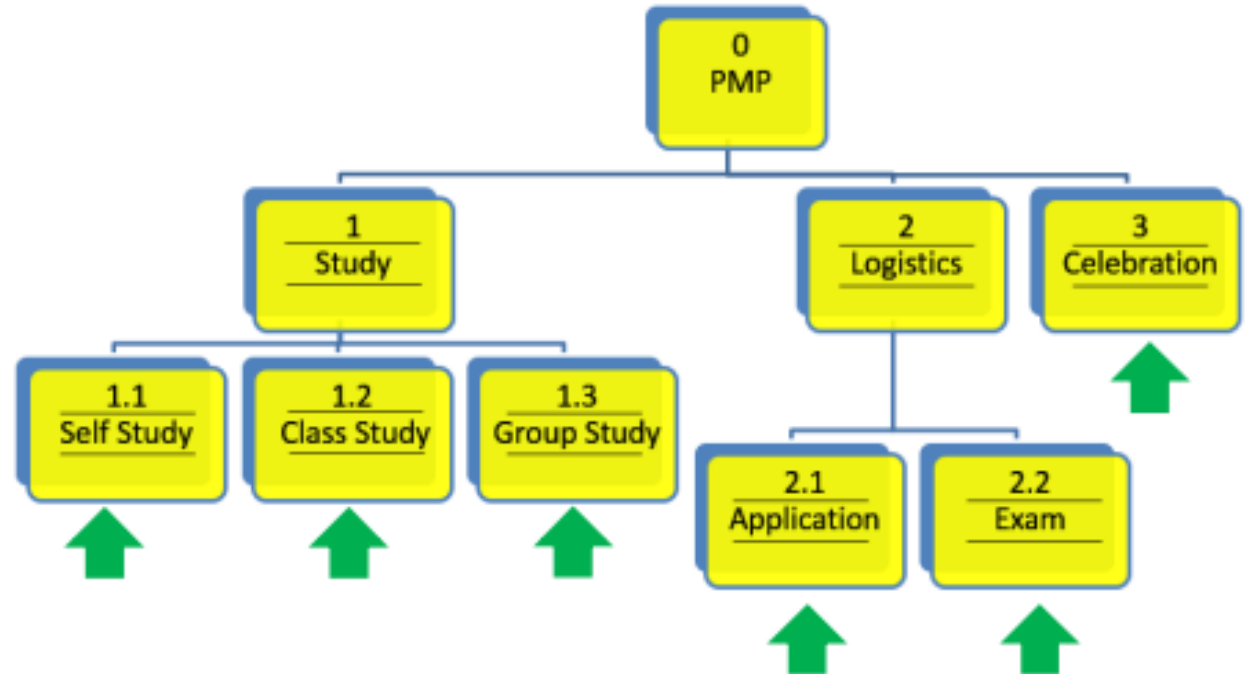
1. **Identify** deliverables and the work/tasks needed to accomplish them
2. **Structure and organize** the WBS
3. **Decompose** high-level scope components into low-level components
4. Use the **100% rule** – nothing more, nothing less

Work Packages

WBS element at the **lowest level**

Conditions for Work Package:

- Necessary & sufficient
- Measurable
- Doable



How many work-packages does this WBS have?

Lowest means the one does not have anything lower than that.

Define & Baseline Scope

Why do Projects Fail?



Because we **don't understand** what the **customer needs**

Why do Projects Fail?

Customer requirement



1. Have one trunk
2. Have four legs
3. Should carry load both passenger & cargo
4. Black in color
5. Should be herbivorous

Because we **don't document** the **requirements correctly!**

Our Solution



1. Have one trunk ☒
2. Have four legs ☒
3. Should carry load both passenger & cargo ☒
4. Black in color ☒
5. Should be herbivorous ☒

**Understand Customer's
Requirements Clearly**

**Document the Scope of the
project Correctly**

Scope Baseline

An **approved & signed off** version of your project scope

A scope baseline is composed of your

- Project Scope Statement
- Requirements Documentation (SRS)
- WBS (Work Breakdown Structure)
- WBS dictionary (where all details of your work breakdown structure are collated)

2 way Insurance Policy

Requirements Traceability Matrix

A document that demonstrates the **relationship between requirements and other artifacts**.

It typically documents requirements, tests, test results, and issues.

Req No	Req Desc	Testcase ID	Status
123	Login to the application	TC01,TC02,TC03	TC01-Pass TC02-Pass
345	Ticket Creation	TC04,TC05,TC06, TC07,TC08,TC09 TC010	TC04-Pass TC05-Pass TC06-Pass TC06-Fail TC07-No Run
456	Search Ticket	TC011,TC012, TC013,TC014	TC011-Pass TC012-Fail TC013-Pass TC014-No Run

It is used to prove that requirements have been fulfilled.

Summary

Project Scope = Scope Statement + WBS + WBS Dictionary

Scope Statement

- Product Scope
- Project Scope with description
- Deliverables
- Acceptance Criteria
- Exclusions
- Assumptions
- Constraints

WBS

- Work packets which cannot be broken down further
- Manageable / Trackable chunks of work
- Highly controllable due to small duration

WBS Dictionary

- Details of every work packet
- What
- How
- Why

Validate Scope

Scope Validation

Process of ensuring that the project **deliverables are completed** according to the **agreed scope and quality standards**, and that the **customer formally accepts** them.

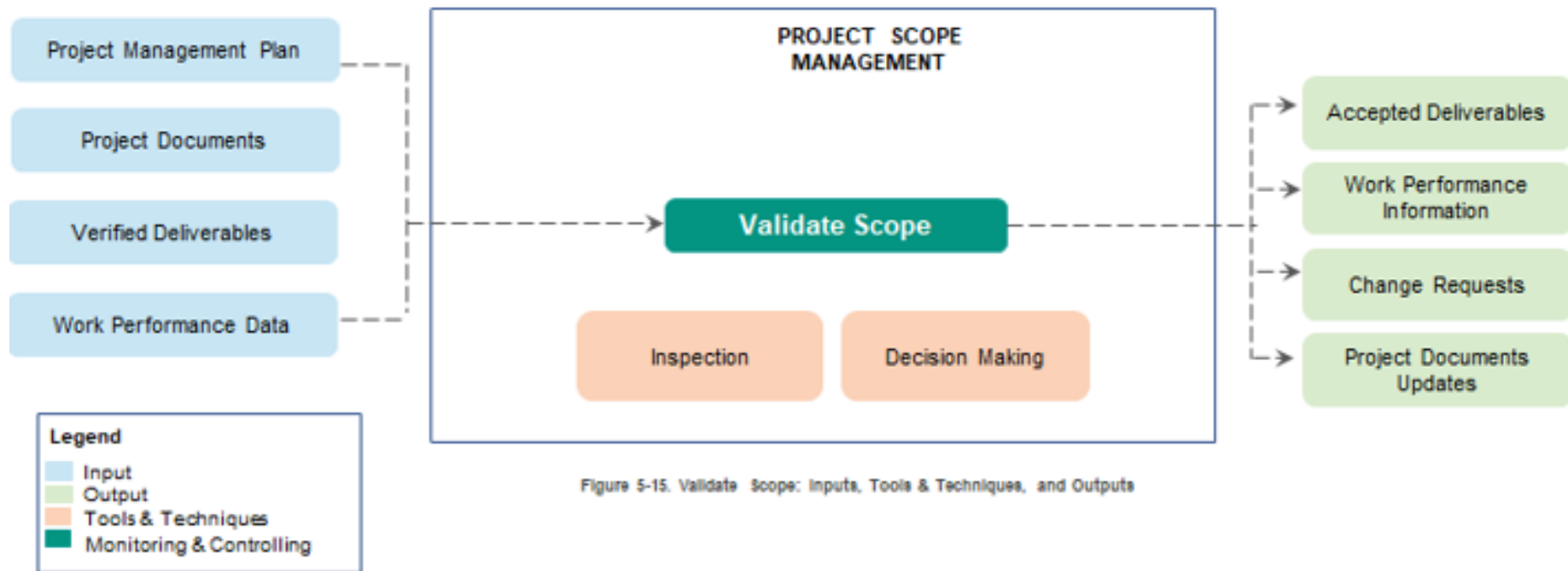
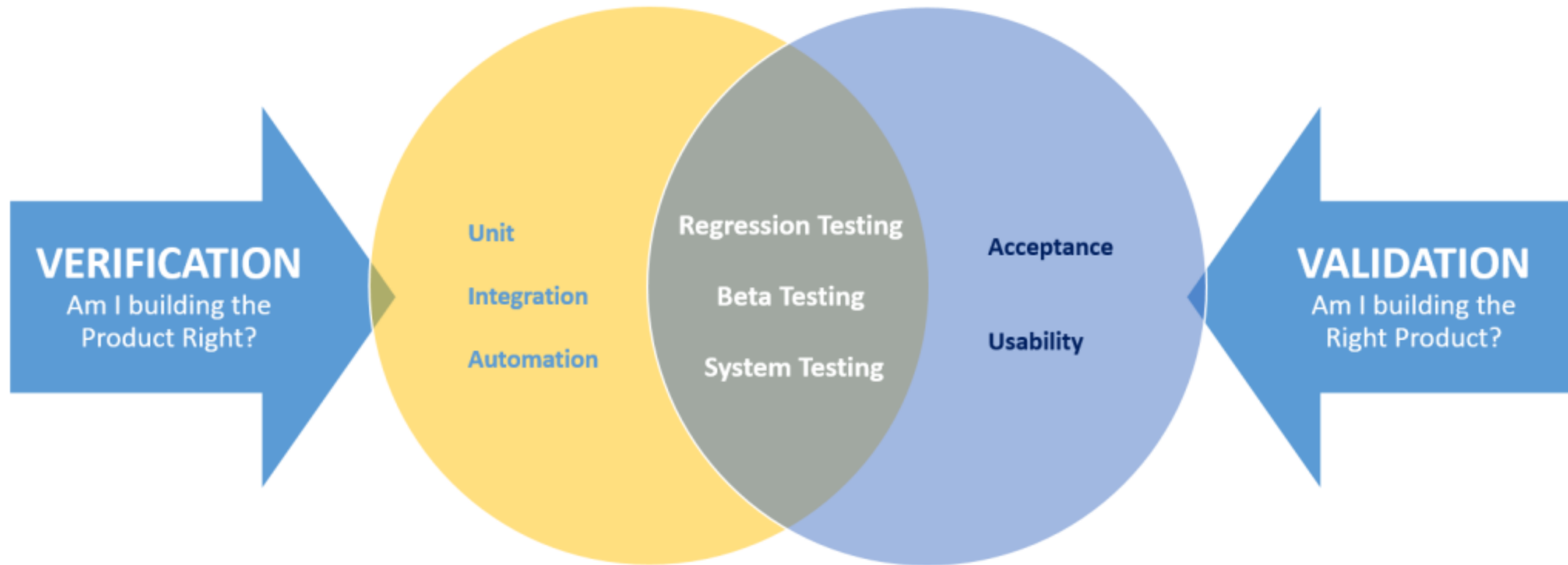


Figure 5-15. Validate Scope: Inputs, Tools & Techniques, and Outputs

Verification vs Validation



Control Scope

Let's Draw!

I want a simple picture of a scenery, which I can hang on the wall in my room.

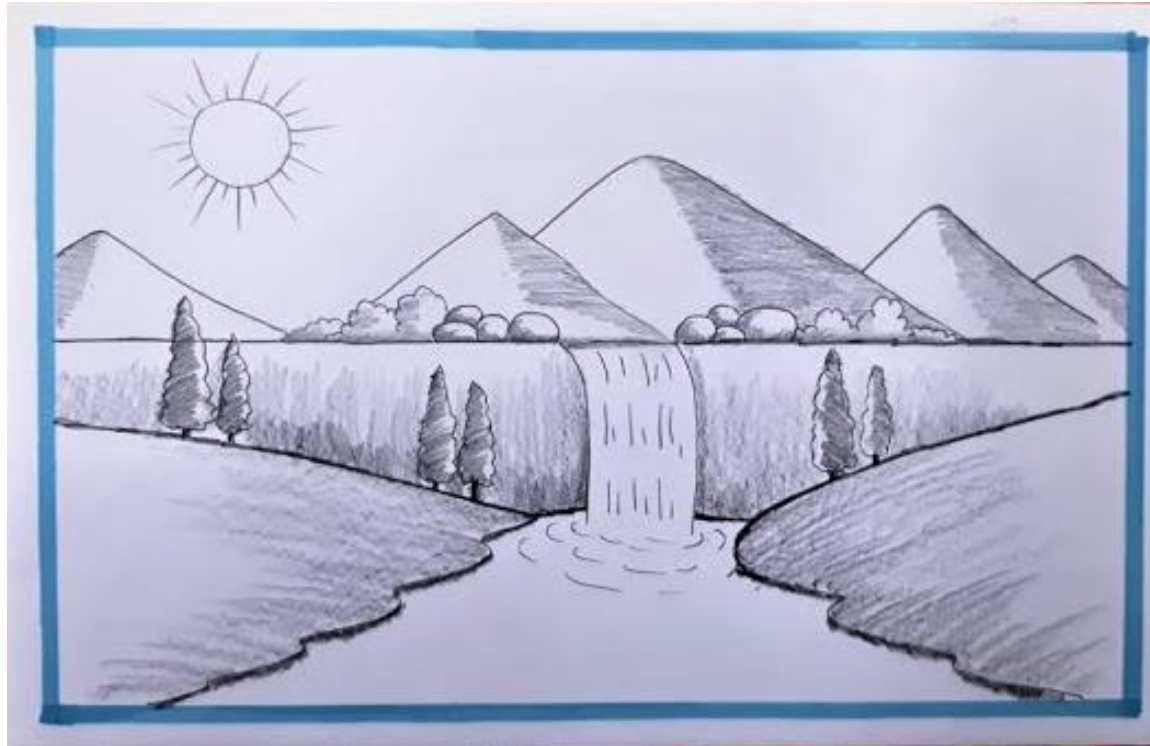
Please create the picture on any sheet of paper in next 5 mins.

Let's Draw!

This is what I wanted...
Is your picture like this?
If not, why not?

Did you identify
all requirements?

Did you
validate the
scope?



**Bells &
Whistles**

Did you add
things you
"assumed" are
required?

Scope Creep

Did you add
things to make
it "better"?

Gold Plating

Summary

Project Scope Management

1

Plan Scope Management

2

Collect Requirement

3

Define Scope

4

Create WBS

5

Validate Scope

6

Control Scope

Key Take-aways

**Note down the top 3 Key
Take-aways for you from
this session**



Thank You



<https://www.linkedin.com/company/talent-academy-taualpha/>

Collect Requirements for Planning a Trip

Discuss this topic in groups of four participants

Assign each person one of the following roles:

Writer

Documents the important points that will be presented at the end.

Presenter

Shares the group's information with the class.

Facilitator

Keeps all group members involved and generates discussion.

Timekeeper

Keeps the discussion at 5 minutes. Shares key time checkpoints.

