IT Project Management

LESSON OBJECTIVES
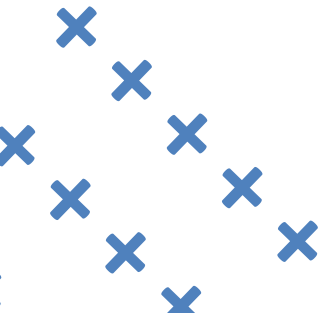
> Understand IT Project Management

> Explore useful IT Project Management tools
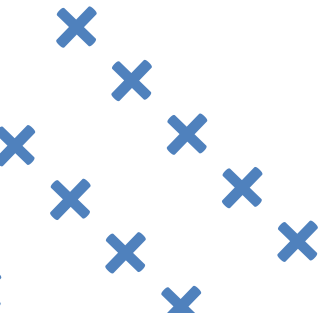
Project Management

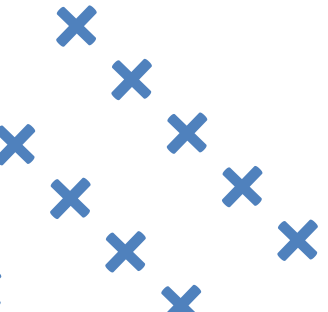What are projects?

Project Management

A project:

- Temporary endeavor

- Creates unique product, service or result

- Planned for a specific duration

- Once-off occurrence with specific objectives

- Differs from day-to-day operation

Project Management

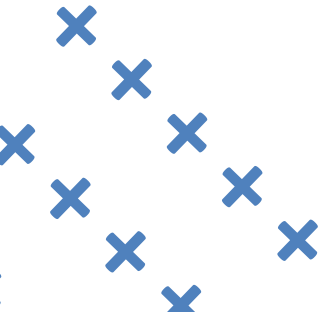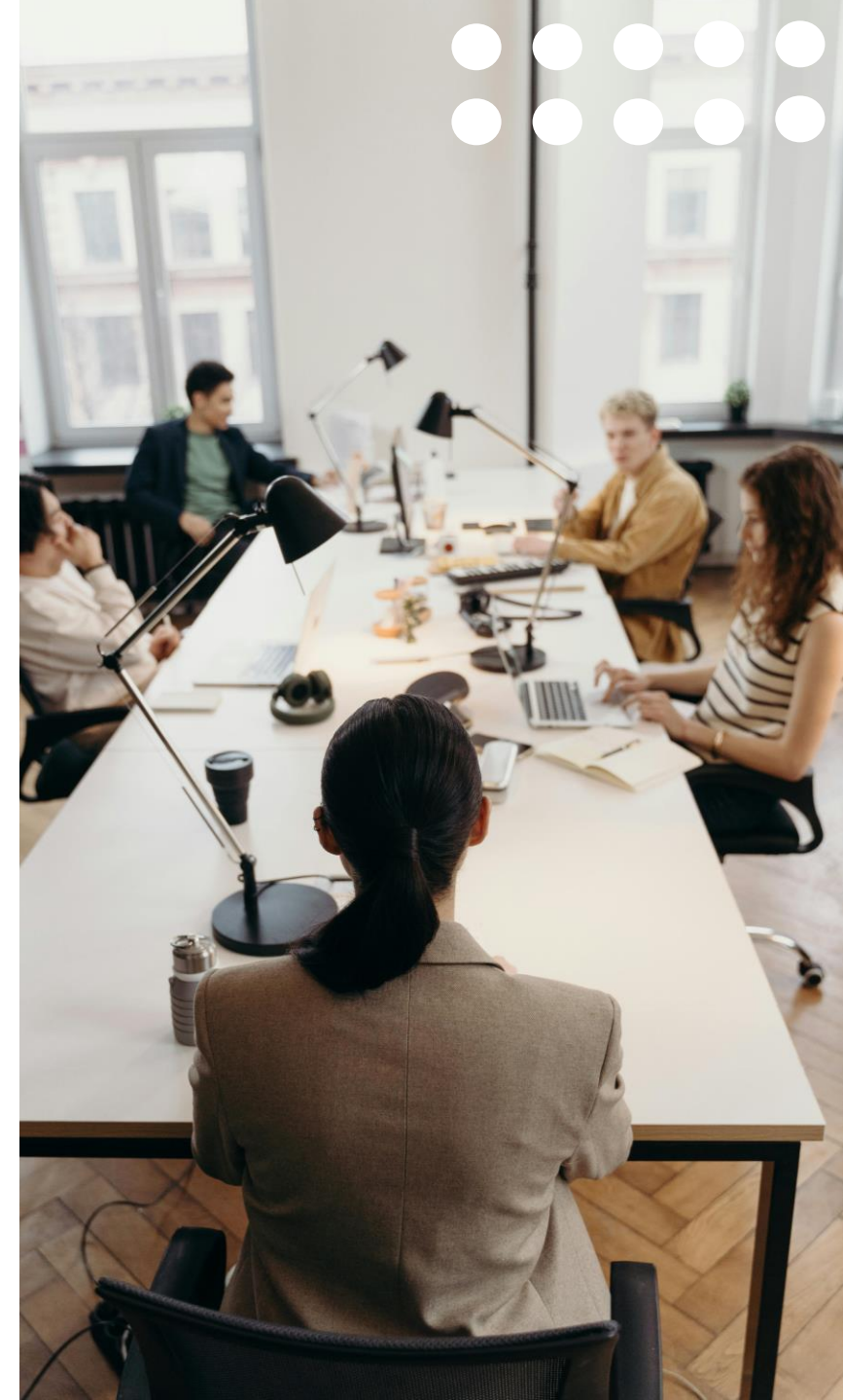## What is Project Management?

Project Management

Execution of activities

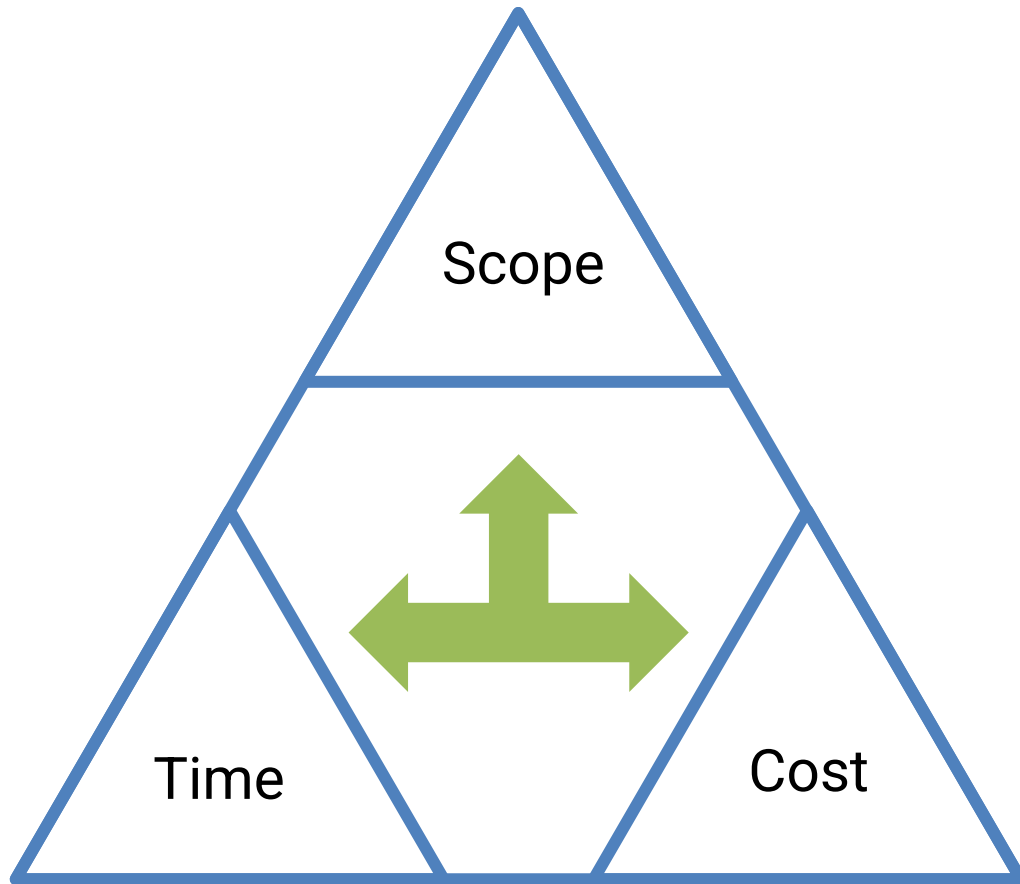Achieve a specific objective

Completing deliverables

Advantages of formal Project Management

- Improved control of resources

- Shorter development time

- Reduced costs and high quality

- Higher levels of productivity

Project constraints

These three constraints are often depicted as the "*Triple Constraint*":

- **Scope** constraint defines all the work, deliverables, and features that must be completed.

- **Cost** constraint refers to the budget and resources allocated to complete the project.

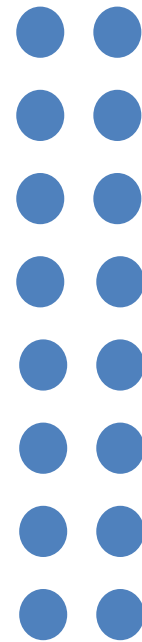- **Time** constraint represents the schedule and deadlines for completing project deliverables.

Project stakeholders

Stakeholders are the people involved in or affected by project activities.

Examples of project stakeholders

Example	Description
Project sponsor	Usually a senior executive who provides resources and high-level support, champions the project, and is ultimately accountable for its success
Project manager	The person responsible for day-to-day management of the project, coordinating the team, managing resources, and ensuring deliverables meet requirements
Project team	The group of people who perform the actual work of the project, including developers, designers, testers, or other specialists depending on the project type
End-user	The people who will ultimately use or benefit from the project's deliverables - their needs and feedback are crucial for project success

IT Projects

What are IT Projects?

IT Projects

Initiatives that involve developing, implementing, or modifying information technology systems, infrastructure, or software to achieve specific business objectives and improve organizational efficiency

IT Project Management

What is IT Project Management?

IT Project Management
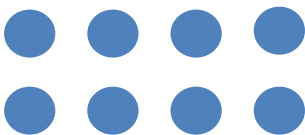
Leading teams to deliver technology solutions

Managing tech resources and budgets
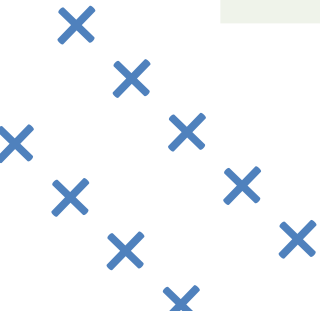
Coordinating development and system implementations

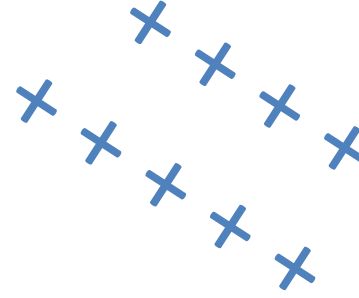Meeting business goals through IT delivery

Examples of modern IT projects

Example	Description
Mobile app development	Banking apps and food delivery services that provide services through smartphones
Cloud migration	Moving company systems and data to providers like AWS, Azure, or Google Cloud
AI/ML implementation	Using artificial intelligence through chatbots and predictive analytics tools
Cybersecurity upgrades	Enhancing security through multi-factor authentication and firewall updates
Website development	Building new company websites and e-commerce platforms
Digital transformation	Converting traditional processes to digital through paperless workflows and automation
Data analytics projects	Creating PowerBI dashboards and customer behavior analysis tools
Enterprise software rollouts	Installing company-wide systems like SAP, Workday, Salesforce or Oracle APEX

IT Project Manager skills

Technical
- Understanding of networks, databases, and systems architecture
- Basic knowledge of programming and development processes
- Ability to interpret and create technical specifications
- Proficiency with tools like Jira, MS Project, or Trello

Management
- Creating project schedules, resource allocation, and budgeting
- Identifying and mitigating potential project risks
- Managing and motivating technical teams

Soft Skills
- Clear communication of technical concepts to non-technical stakeholders
- Quick and effective resolution of project issues
- Flexibility in handling changing requirements and technologies
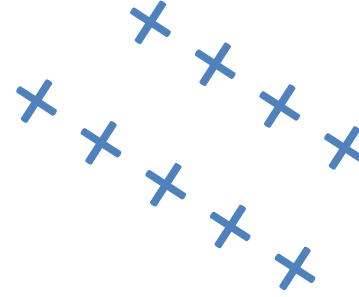- Prioritising tasks and meeting deadlines

IT Project Management Tools

Work Breakdown Structures (WBS)

Kanban Boards

Work Breakdown Structure

A Work Breakdown Structure (WBS) is a hierarchical decomposition of a project into smaller, more manageable components, where a large project is broken down into deliverables, sub-deliverables, and work packages.
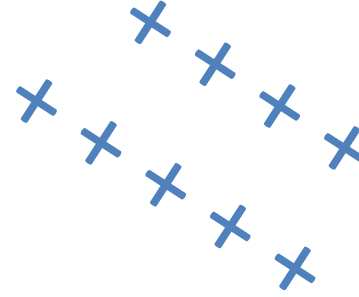
Basic WBS Architecture

WBS Tool

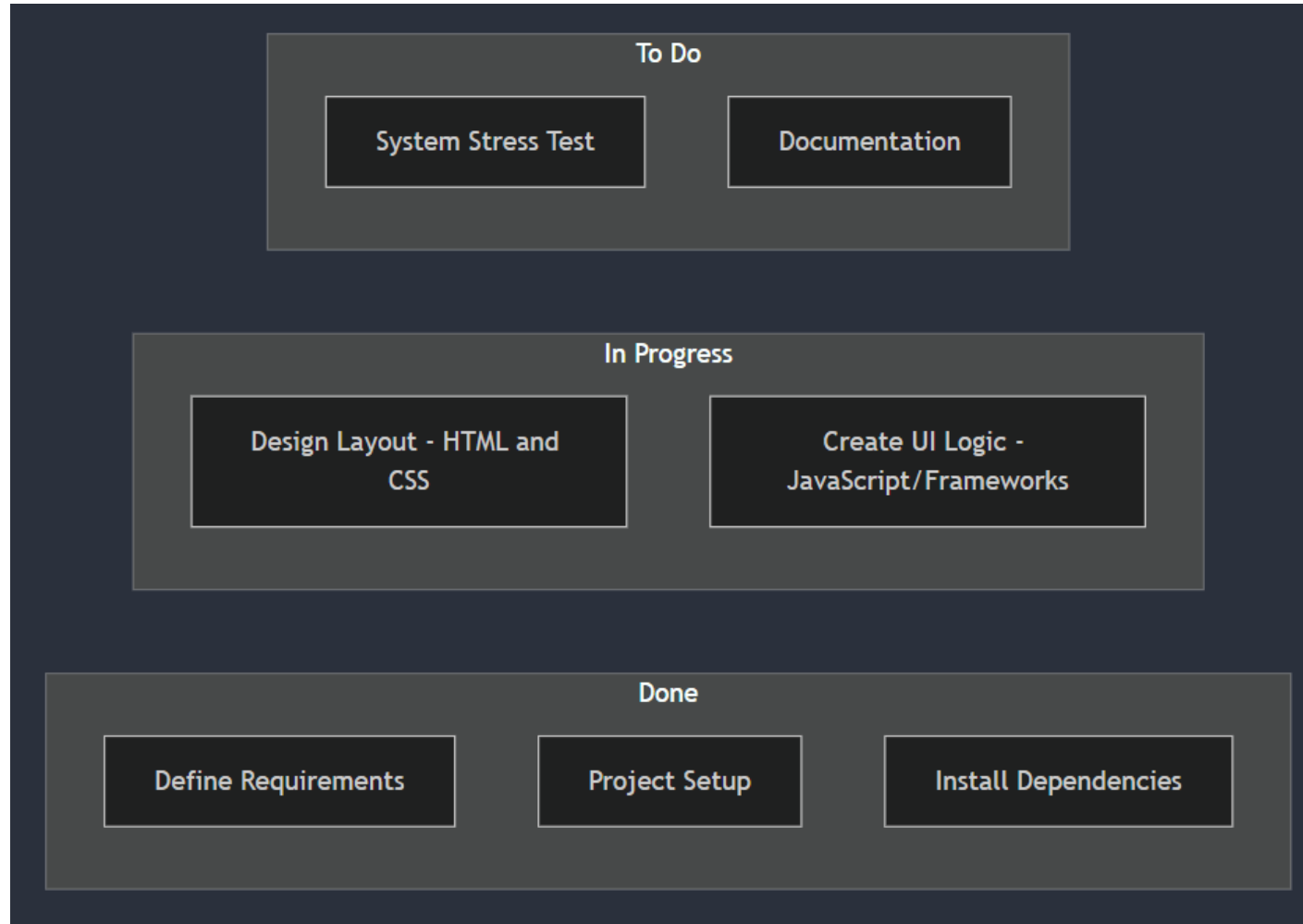Try using draw.io to create your own WBS

Kanban Boards

A Kanban board is a visual project management tool that displays tasks/deliverables moving through different stages of completion, typically organised in columns like "To Do," "In Progress," and "Done."

Basic Kanban Board Architecture

Kanban Board Tool

Try using Trello to create your own Kanban board