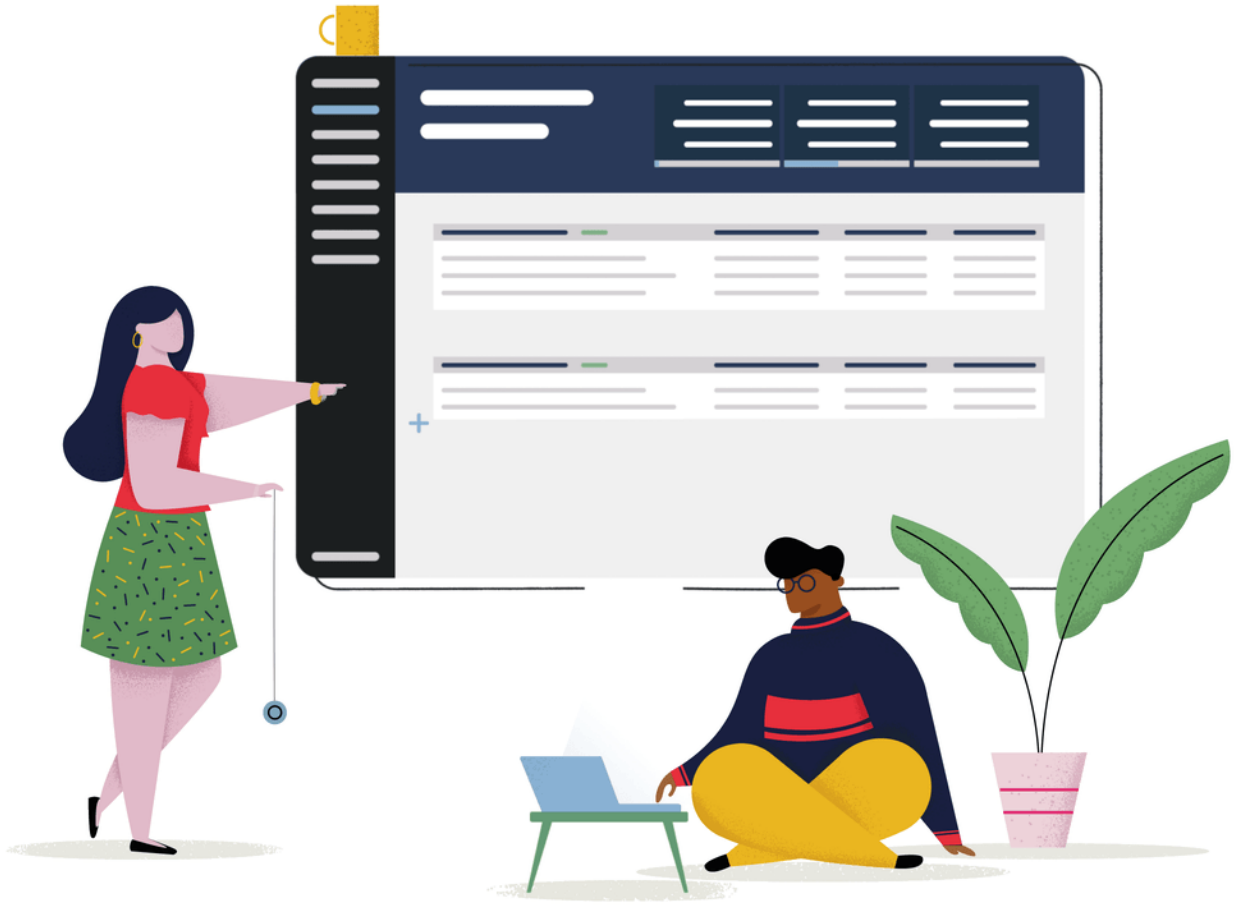
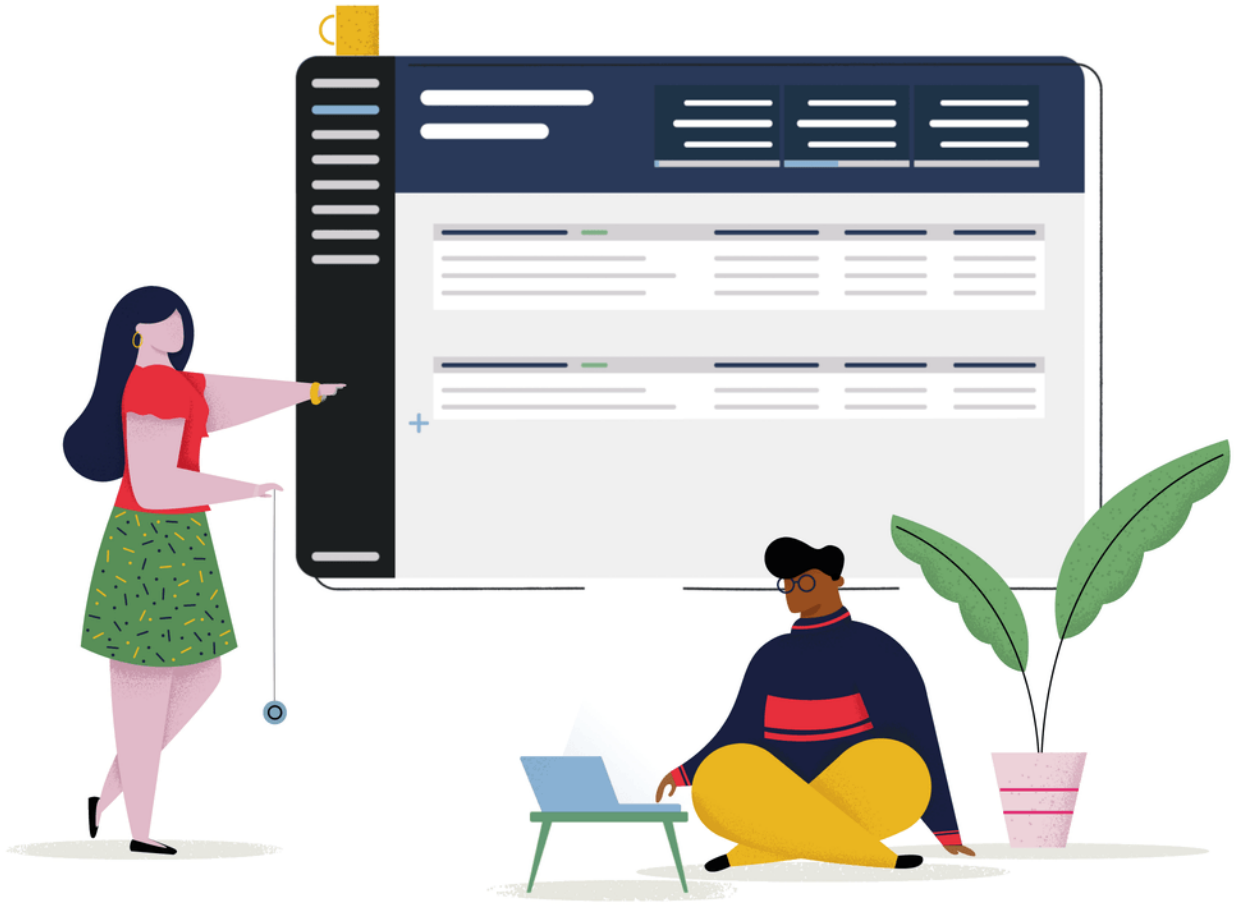


BSIT Capstone Project Directives

In accordance with CMO 205, a Capstone Project is an undertaking appropriate to a professional field. It should significantly address an existing problem or need.

2.2.1 An Information Technology Capstone Project focuses on the infrastructure, application, or processes involved in introducing a Computing solution to a problem.



Scope of the Theses/Capstone Projects

For Information Technology Capstone Projects, recommended infrastructure and its implications on other systems should be clearly specified in the final report with the introduction of the project.

The thesis/capstone project adviser should determine the appropriate complexity level of the specific problem being addressed and the proposed solution, considering the duration of the project, the composition of the team, and the resources available.

Software Development

- Software Customization
- Information Systems Development for an actual client (with pilot testing)
- Web Applications on Development (with at least alpha testing on live severs)
- Mobile Computing Systems

Multimedia Systems

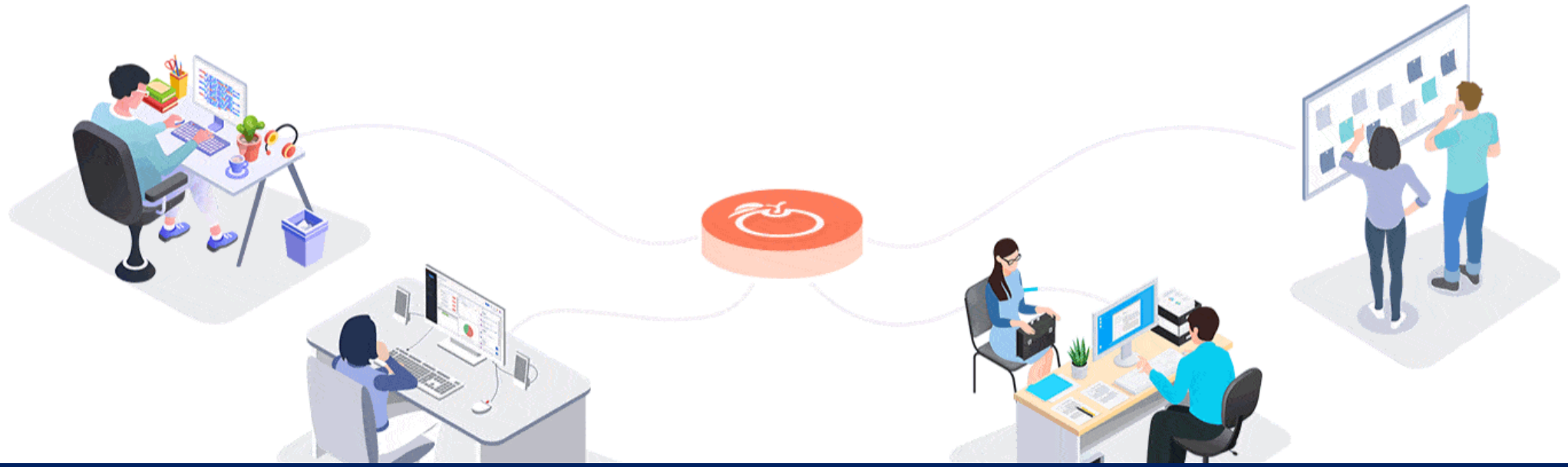
- Game Development
- e-Learning Systems
- Interactive Systems
- Information Kiosks

IT Management

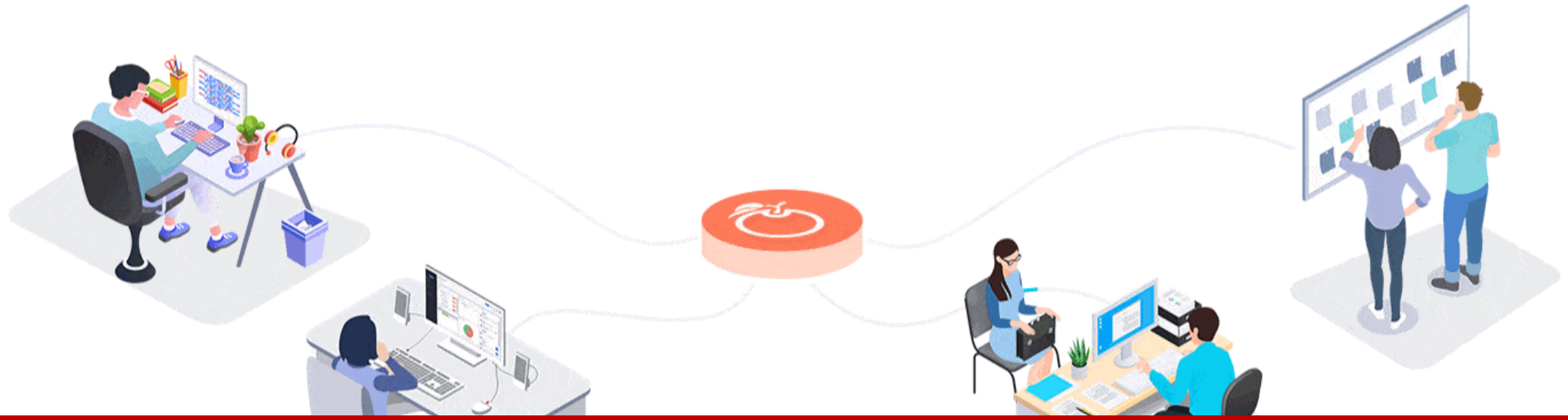
- IT Strategic Plan for sufficiently complex enterprises
- IT Security Analysis, Planning, and Implementation

An **IT Capstone** must be able to reflect the knowledge, skills, and technical capabilities of an IT student. This must also be aligned with the requirements provided by the institution, department, and the college. **It must also be a reflection of times, as it is also intended to answer relevant business solutions, social problems, and demonstrate practical applications of IT in different fields.**

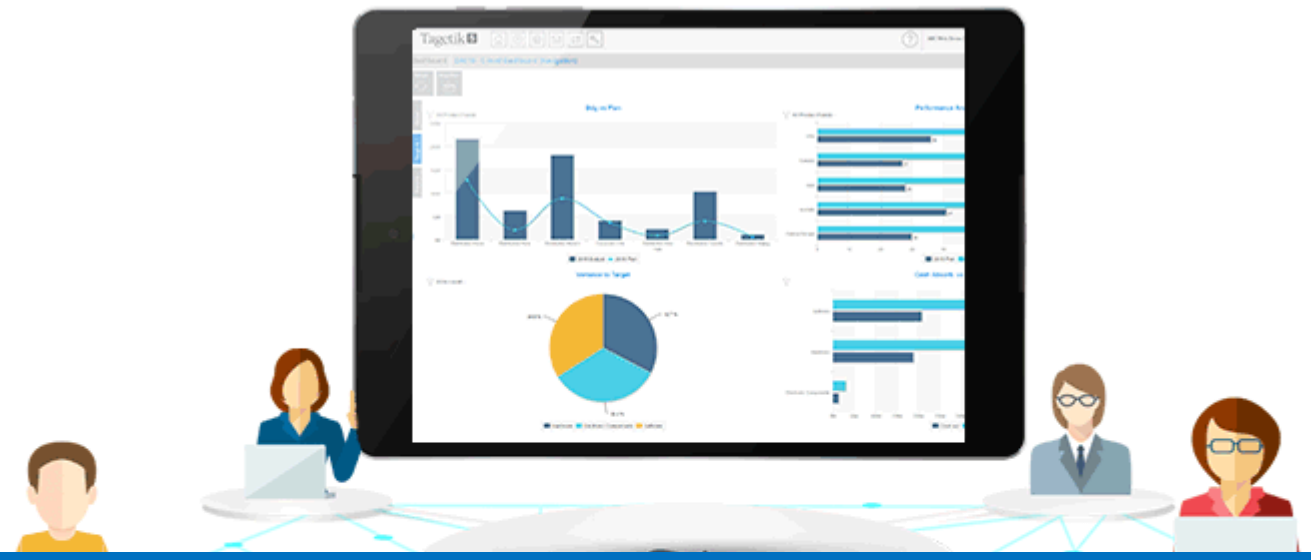
- **Interdisciplinary**: An IT Capstone must be able to **incorporate different subfields** in IT, this must include the following but are not limited to; **software development**, **cybersecurity**, **data science**, **database management**, and **network administration**. This must also address a specific problem/challenge in its intended environment. This may involve the development of a software system, improved network security, database optimization, automation, and digitization.



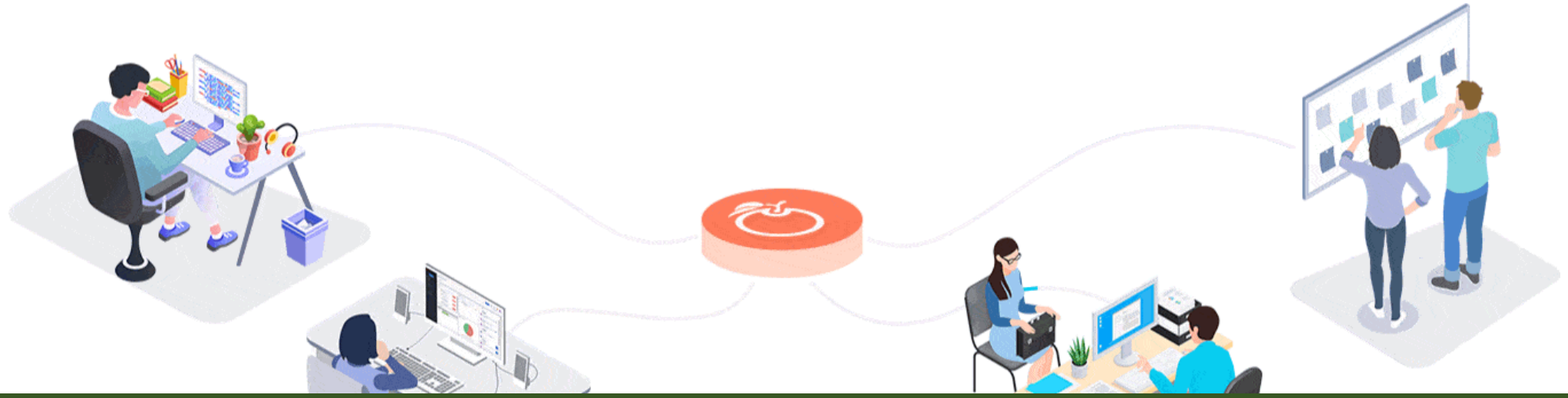
- **Relevance**: Researchers or Developers must be able to address a **specified relevance** to the **environment** in which it will be **implemented** in. Its relevance may encompass various fields not limited to industries being supported by IT; **service industry, retail, manufacturing**, and **management.** Researchers or Developers must ensure that project is of real-world significance.



- **Research and Innovation**: An IT Capstone must intend to introduce **new methodologies, techniques,** or **business strategies** thru the **integration of IT**. The project must be innovative in a way that it clearly states that the initial deficiency in the traditional process has been answered by the IT project in a creative and data-driven approach.



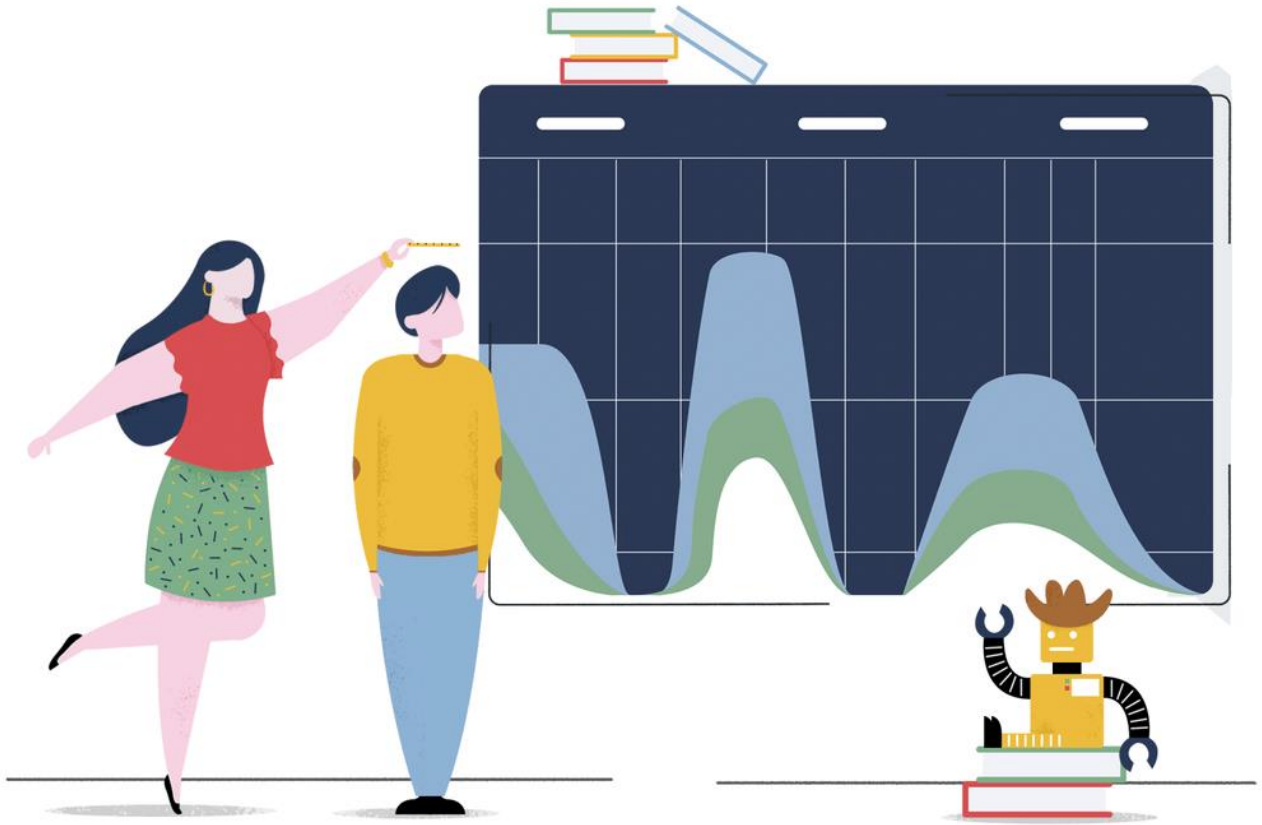
Scope: A well-defined scope must be **SMART (Specific, Measurable, Attainable, Realistic, and Timely or Time-bounded)** and achievable at the same time within the time and resource available. It must also answer and cater the solution to a community, a well-defined population, or to society if possible. It must be developed for the benefit of a specified demographics and not limited to a few users. Researchers must also define their intended scope; an answer to deficiency in speed, process flow, or results.



Complexity: An IT Capstone should showcase and demonstrate **technical skills** the developers currently hold. It must be **achievable but not too simple**, it must introduce multiple business solutions through different IT subfields that may centralize or streamline their original business process.

User-Centered: Researchers must focus on clearly identifying the **requirements specifications** from their **intended end-users**. It must apply the principles of User-Centered Design and must be developed in the viewpoint of its users instead of the developers.

Scalability: The project has considered its **implications** and chances of **increased growth and usage in the future**. This is most applicable in software or system development. Proponents must be able to scope the ability of the system to manage big amount of data that is sustainable.



Secured, Ethical, and Legal: An IT Capstone must follow **Data Privacy** regulations. Researchers must also ensure that project is **ethical** and **free of cybersecurity threats**. They must focus that project being developed and implemented with security as a priority. The researchers must be able to implement restriction and user access as needed.

Composition of Thesis / Project Groups

Project Manager/Coordinator – Responsible for the overall implementation, execution, and coordination of the group.

Technical Lead – Responsible in managing group in the aspect of software development, data analysis, and meeting other technical deliverables.

Design Lead – Responsible in front-end development and the visual or creative aspect of the project. Ensures that projects visual design aligns with the target audience

Communication and Documentation Lead – Manages and is responsible in maintaining project documentation and other important records. Coordinating with technical and research advisers. Ensure Manuscript is aligned with the actual output to be developed

CHAPTER I THE PROBLEM AND ITS BACKGROUND	
	1.1 Background of the Study
	1.2 Project Context
	1.3 Problem Statement
	1.3.1 General Objectives 1.3.2 Specific Objectives
	1.4 Purpose and Description
	1.5 Significance of the Study
	1.6 Scope and Delimitation
	1.7 Conceptual Framework
	1.8 Definition of Terms

BACKGROUND OF THE STUDY

This section of Chapter 1 will give a brief overview of the project and its underlying background justifications of why similar systems were initially developed. It may include historical development of the domain and its relevance in modern times.

It answers the questions

1. Why were similar systems developed in the first place?
2. What similar systems or under what type of systems they were developed.

PROJECT CONTEXT

Here, we describe the broader environment or setting in which the project is situated. This includes factors such as societal trends, technological advancements, or existing initiatives that influence the project's goals and objectives. The project context describes in a broader perspective as to why the project is developed, where it is to be deployed and situated. This includes factors such as technological advancements, societal trends, existing initiatives, and others that shapes the project’s goals and objectives.

PROBLEM STATEMENT

The problem statement focuses on the main issue or challenge that the developers aims to produce a solution for. This will also serve as the foundation for the project's objectives and rationale.

GENERAL OBJECTIVES

The general objectives provides an overview or high-level view of what the project aims to deliver in terms of features, modules, and objectives. They serve as the guiding principles for the project on a broader perspective.

SPECIFIC OBJECTIVES

The specific objective aims to create a detailed outline of the target aims that the project intends to achieve. These are more granular explanations of the solutions we intend to deliver to our future users.

PURPOSE AND DESCRIPTION

This part offers a wider perspective and a more in-depth explanation of the project's purpose and provides a description of its intended deliverables. It intends to answer the question; why is the capstone project being developed and its expected results.

SIGNIFICANCE OF THE STUDY

In this section, it is important to highlight the potential impacts and benefits of the project being developed. This aims to describe the value of the project in the perspective of the stakeholders and justify its implementation

SCOPE AND DELIMITATIONS OF THE STUDY

This section defines the boundaries in which the proposed project is delimited. This section must ensure that a clear understanding of the project core and intended outputs.

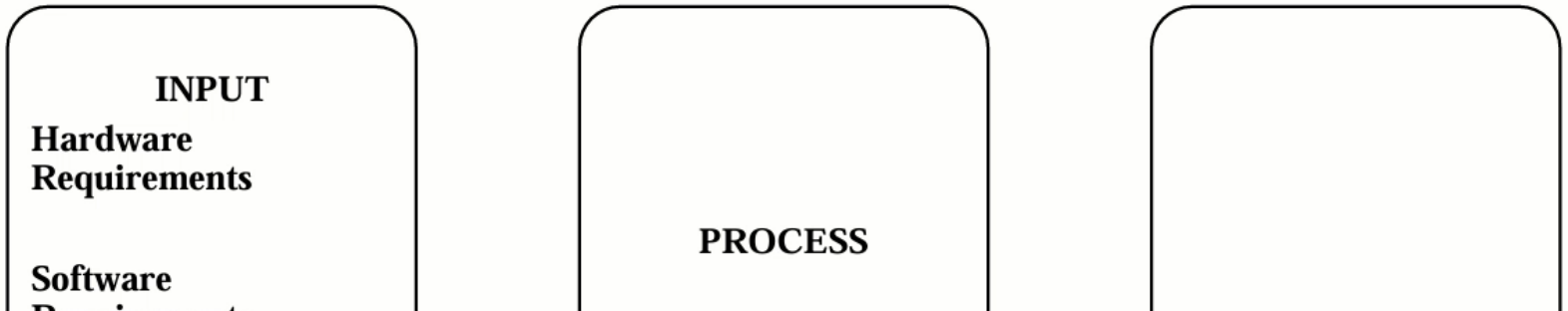
THEORETICAL FRAMEWORK AND CONCEPTUAL FRAMEWORK

Conceptual Framework

As shown in figure 12, is the development process of the proposed study. The study will be divided into three specific components in which the Input-Output model integrated with the process of multimedia production will be used in order to produce the output.

Figure 12

Conceptual Framework



DEFINITION OF TERMS

Definition of Terms

This section of the study describes the terms used that are significant for the study:

4A Framework for Evaluating Digital Materials, this framework evaluates aspects like usability, learner engagement, diverse perspectives, and material transparency. It serves as a valuable tool for educators, administrators, and researchers to assess the quality and effectiveness of digital instructional materials

Adobe After Effects, is a software under the Adobe Creative Suite package that is intended to be used by the researcher for animating modules and producing main content of the online self-