



UNIVERSIDAD POLITÉCNICA DE YUCATÁN
Embedded Systems Engineering – 3A
ADVANCED PROGRAMMING

“Software Development Life Cycle”

Teacher:

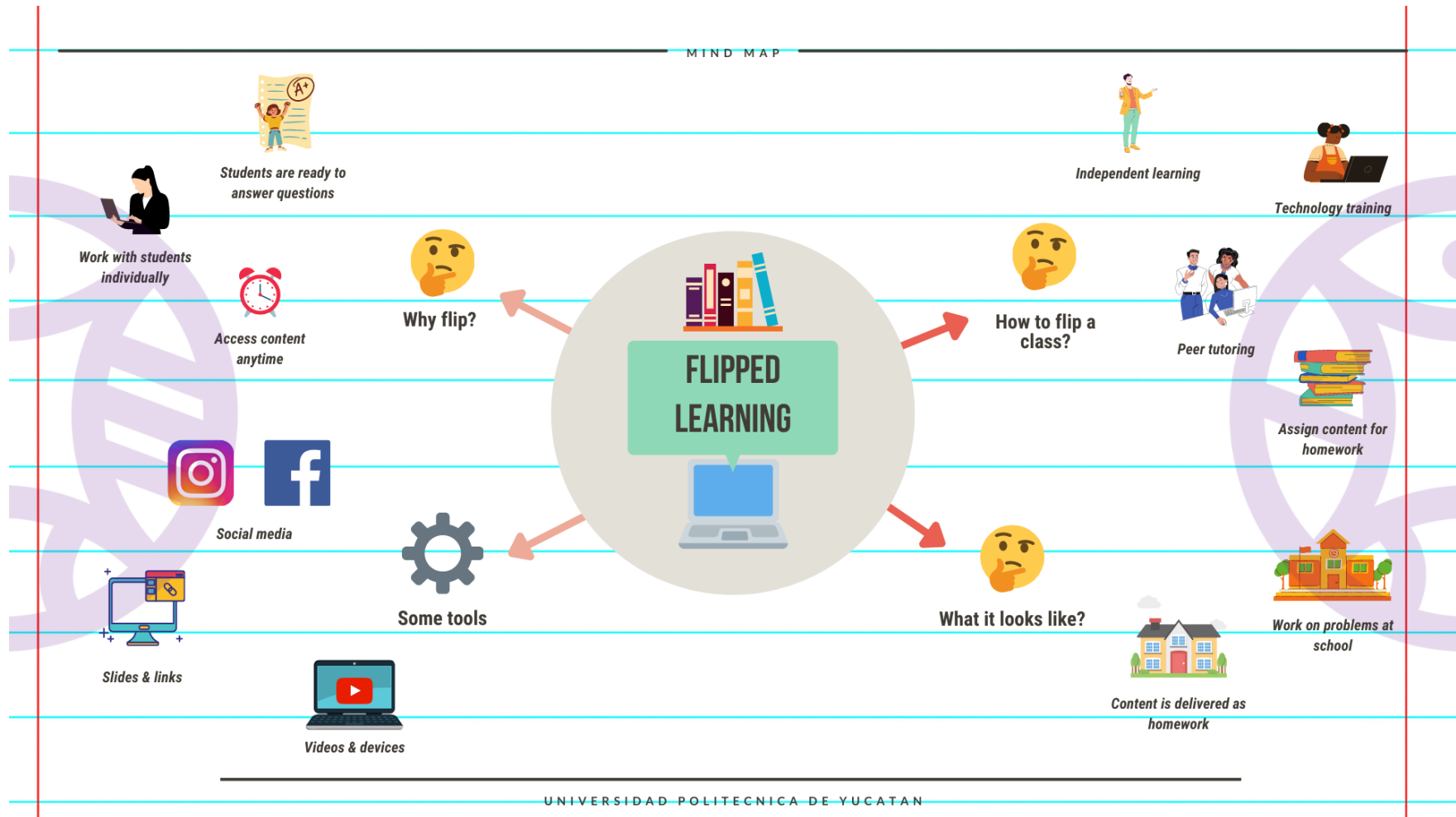
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MIND MAP: FLIPPED LEARNING



SOFTWARE DEVELOPMENT LIFE CYCLE

The Software Development Life Cycle is a process that produces software with the highest quality and lowest cost in the shortest time possible. SDLC provides a well-structured flow of phases that help an organization to quickly produce high-quality software which is well-tested and ready for production use.

It follows a plan that removes the typical pitfalls of software development projects. That plan starts by evaluating existing systems for deficiencies.

Then, it defines the requirements of the new system by creating the software through its stages. SLDC can eliminate redundant rework and after-the-fact fixes (this reduces costs).

Stages of Software Development Life Cycle

Requirement's Analysis

In this stage of work, the team identifies, gathers, and defines current problems, requirements, requests, and customer expectations related to the software application or service.

Defining software or product requirements gives teams the foresight and context needed to deliver and produce their software solutions.

Design

The team makes software design decisions regarding the architecture and make of the software solution. This can involve creating design documents, coding guidelines, and discussing the tools, practices, runtimes, or frameworks that will help the team meet the software requirement specification and goals defined in the requirements gathering phase.

Implementation

In this phase, the database admin creates and imports the necessary data into the database. Programming languages are defined by requirements. Developers create the interface as per the coding guidelines and conduct unit testing.

Verification

In this stage, we test for defects and deficiencies. We fix those issues until the product meets the original specifications.

In short, we want to verify if the code meets the defined requirements.

Maintenance

This stage of work can involve reviewing, understanding, and monitoring network settings, infrastructure configurations, and performance of application services in production. This process can involve incident resolution or management in the course of any issues or changes made to impact a customer or user base.

Importance

It is important to have an SDLC, as it helps to transform a project idea into a functional and fully operational structure. Also responsible for covering the technical aspects of system development, the SDLC helps with process development, change management, user experience and policies. In short, the use of the SDLC optimizes the physical work (group of developers) as well as the plan (code and related) in a workspace regardless of the number of collaborators.

Github Repository

<https://github.com/CesarSAdrian/Advanced-Programming>

REFERENCES

Altvater, A. (2021, 30 marzo). *What Is SDLC? Understand the Software Development Life Cycle*.

Stackify. <https://stackify.com/what-is-sdlc/>

Jachja, T. (2021, 15 junio). *Understanding the Phases of the Software Development Life Cycle*.

Harness. <https://harness.io/blog/devops/software-development-life-cycle/>

What are the 5 phases in the Software Development Life Cycle (SDLC)? (2021b, mayo 5).

Software Development & IT Staffing Company. <https://www.charterglobal.com/what-are-the-5-phases-in-the-software-development-life-cycle-sdlc/>