

UNIVERSIDAD POLITÉCNICA DE YUCATÁN

Embedded Systems Engineering

2-A

Advanced Programming

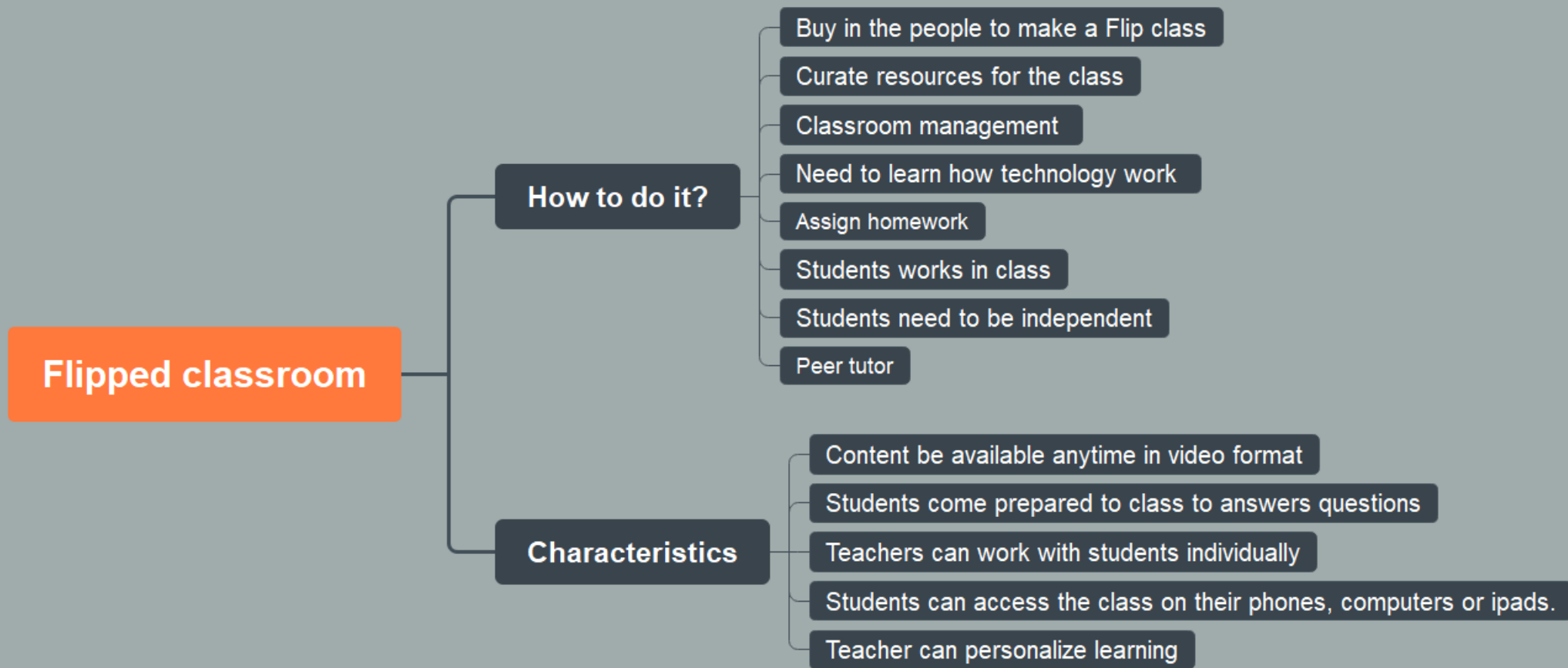
Luis Gerardo Cámara

De la Cruz Pulido Osvaldo

HW1 Unit1

Software Development Life Cycle

10/09/2021



Concept of Software Development Life Cycle (SDLC).

SDLC or 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.

Elements of SDCL

- Requirement's analysis: In this first phase, problems are identified and a plan is created.

Elements of this phase include: Defining the objectives of the project, as well as end user expectations and requirements, identifying available resources, such as personnel and finances, communicating with clients, suppliers, consultants and employees to discover alternative solutions to the problem at hand

- Design: In this design phase of work, 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, physical design of the system takes place. The Implementation phase is broad, encompassing efforts by both designers and end users. Elements include: Writing code, Physical construction of the system, designing numerous items including output, input, databases, programs, procedures and controls, installing hardware and software, Testing the system

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: Once a system is delivered and goes live, it requires continual monitoring and updating to ensure it remains relevant and useful. Requirements of this phase may include: Periodically replacing old hardware, regularly evaluating system performance, providing updates for certain components to ensure they meet standards, Delivering improved systems when necessary

Describe with your own words the importance of SDLC.

This is a software development cycle in engineering, this is the process of creating or modifying the systems, models and methodologies that people use to develop these software systems, in can have most methodologies for the creation of information.

References

ALEXANDRA ALTVATER. (APRIL 8, 2020). What Is SDLC? Understand the Software Development Life Cycle. 2021, de DEVELOPER TIPS, TRICKS & RESOURCES Sitio web: <https://stackify.com/what-is-sdlc/>

Rebecca Bernstein. (March 17, 2017). 5 System Development Life Cycle Phases. 2021, de Concordia Sitio web: <https://online.concordia.edu/computer-science/system-development-life-cycle-phases/>

Tiffany Jachja. (April 28, 2021). Understanding the Phases of the Software Development Life Cycle. 2021, de harness Sitio web: <https://harness.io/blog/devops/software-development-life-cycle/>