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SDLC (Software Development Life Cycle)

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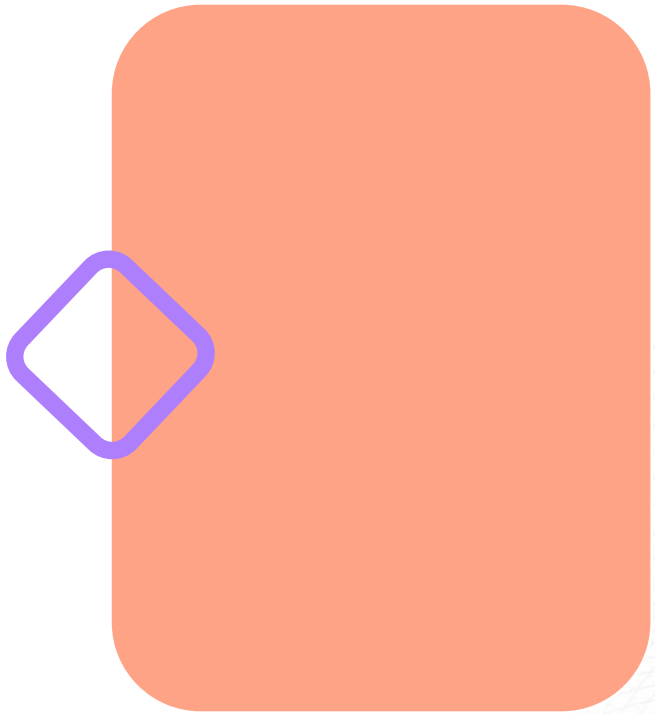
Agenda

1. SDLC Overview
2. SDLC Phases
3. SDLC Flow



Overview

SDLC stands for the Systems Development Life Cycle. It is a framework that is used to plan, develop, and implement information technology (IT) systems. It typically consists of several stages, including planning, analysis, design, development, testing, deployment, and maintenance. The goal of the SDLC is to ensure that the developed system is of high quality, meets the business and technical requirements, and is delivered on time and within budget. The specific stages and activities of the SDLC can vary depending on the methodology used, but they generally involve gathering and documenting requirements, designing the system, implementing and testing the system, and deploying and maintaining it.

Why do we need such standards? Guidelines?

1. **To provide a structured and systematic approach**: The SDLC provides a framework and a set of steps that can be followed to ensure that the development process is organized and efficient. By following the SDLC, project teams can avoid common pitfalls and ensure that the system is developed in a logical and consistent manner.

2. **To ensure quality**: The SDLC includes a number of quality assurance activities, such as requirements gathering, design reviews, and testing, that help to ensure that the developed system is of high quality and meets the business and technical requirements.

3. **To manage risk**: The SDLC includes risk management activities, such as identifying potential risks and developing contingency plans, that can help project teams to anticipate and mitigate potential problems that may arise during the development process.

4. **To control costs and schedule**: By following the SDLC, project teams can better control costs and schedule, as the framework provides clear guidelines and milestones that can help to track progress and ensure that the project stays on track.

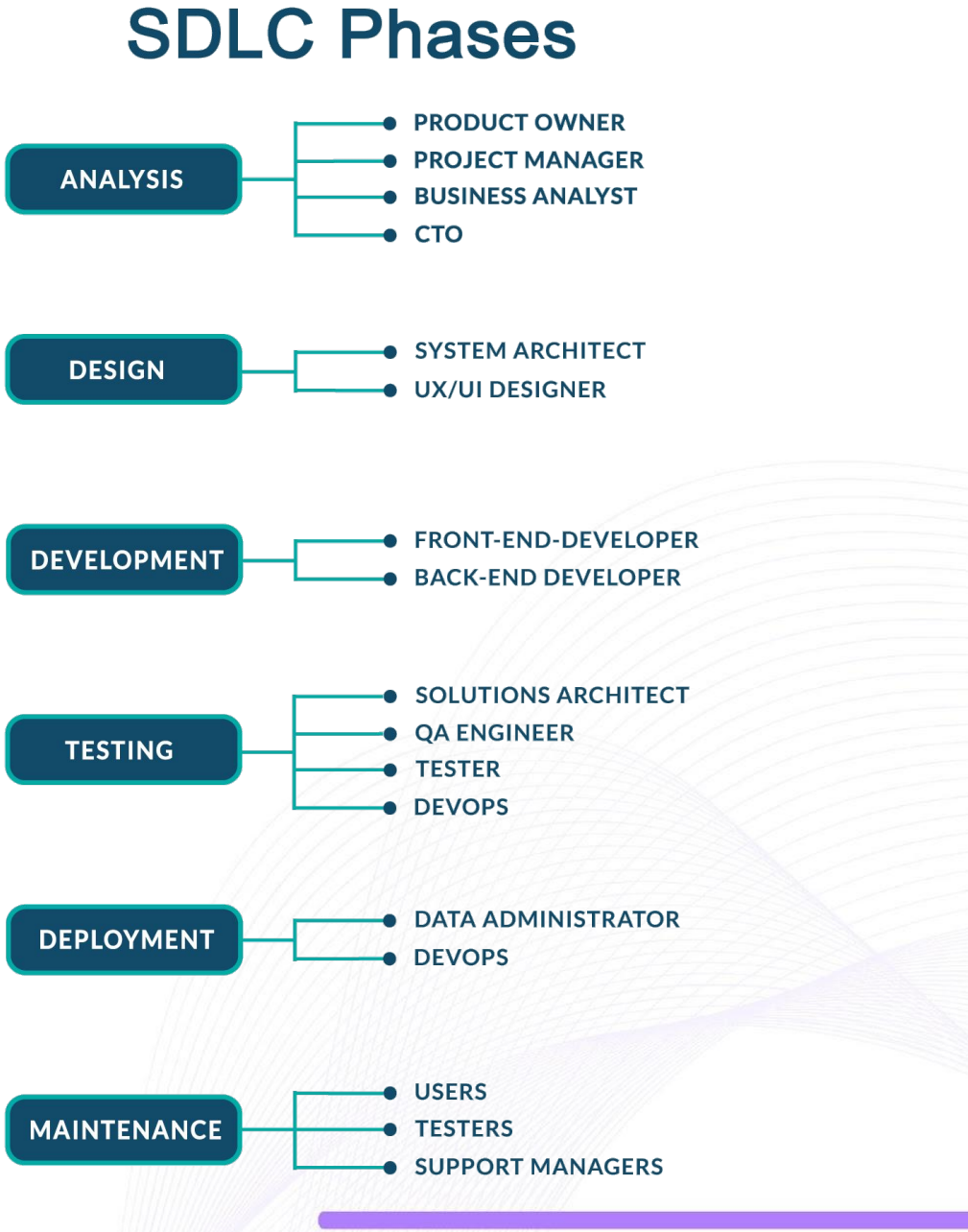
   Overall, the SDLC provides a valuable tool for managing the development of IT systems and helps to ensure that the developed system is of high quality, meets the business needs, and is delivered on time and within budget.

Phases of SDCL

1. **Planning**: In this phase, the project team identifies the business need for the new system and creates a project plan that outlines the goals, scope, timeline, and budget for the project.

2. **Analysis**: In this phase, the team conducts a thorough analysis of the business requirements and technical feasibility of the project. This may include gathering and documenting user requirements, analyzing existing data and systems, and identifying potential risks and solutions.

3. **Design**: In this phase, the team designs the overall architecture and detailed functional and technical specifications for the system. This may include creating diagrams, flowcharts, and prototypes to visualize and test the design.



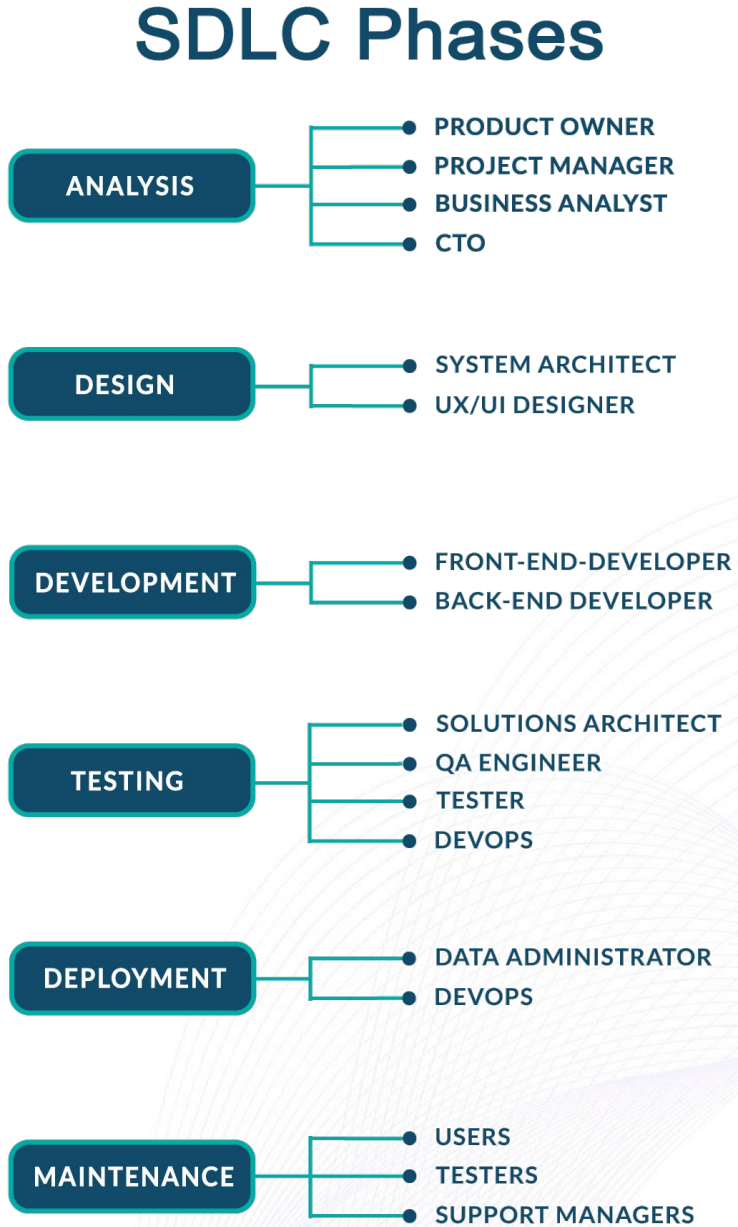
Phases of SDCL

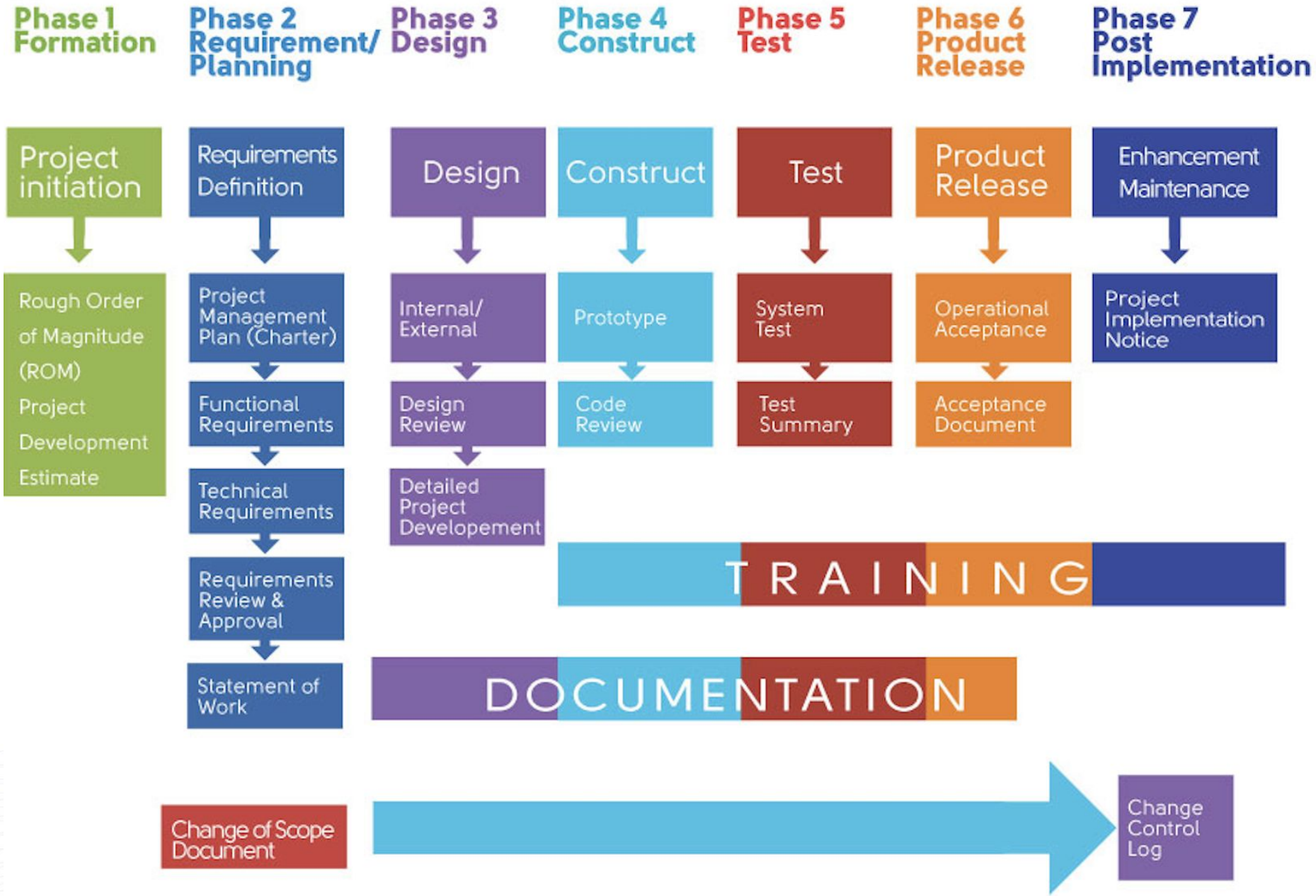
1. **Development**: In this phase, the team begins writing the code for the system based on the design specifications. This may involve using a variety of programming languages and tools, and following established coding standards and practices.

2. **Testing**: In this phase, the team performs various types of testing, such as unit testing, integration testing, and user acceptance testing, to ensure that the system meets the business and technical requirements and is free of defects.

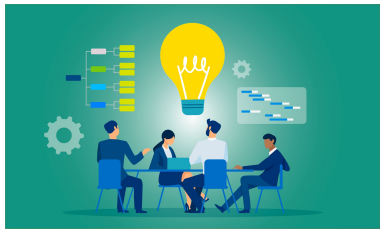
3. **Deployment**: In this phase, the system is deployed to the appropriate environment, such as a test server or a live production server.

4. **Maintenance**: In this phase, the team provides ongoing support and maintenance for the system, including addressing any issues or defects that are discovered after deployment, and implementing enhancements or new features as needed.

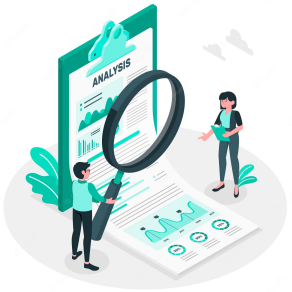



Phase 1 Formation
Phase 2 Requirement/ Planning
Phase 3 Design
Phase 4 Construct
Phase 5 Test
Phase 6 Product Release
Phase 7 Post Implementation
Project initiation
Requirements Definition
Design
Construct
Test
Product Release
Enhancement Maintenance
Rough Order of Magnitude (ROM) Project Development Estimate
Project Management Plan (Charter)
Functional Requirements
Technical Requirements
Requirements Review & Approval
Statement of Work
Internal/ External
Design Review
Detailed Project Developement
Prototype
Code Review
System Test
Test Summary
Operational Acceptance
Acceptance Document
Project Implementation Notice
TRAINING
DOCUMENTATION
Change of Scope Document
Change Control Log

Example of SDLC in development of Website



Planning: The project team meets with the business owner to understand their needs and goals for the website, and creates a project plan that outlines the scope, timeline, and budget for the project.



Analysis: The team conducts a thorough analysis of the business requirements and technical feasibility of the project. This may include gathering and documenting the business owner's vision for the website, conducting market research, and identifying potential risks and solutions.

Design: Based on the results of the analysis, the team designs the overall layout and user experience for the website. This may include creating wireframes, mockups, and prototypes to visualize and test the design.

Example of SDLC in development of Website

Development: The team begins building the website and following best practices for web design and development. This may involve customizing the software, designing the website's pages and content, and integrating any additional features or functionality.

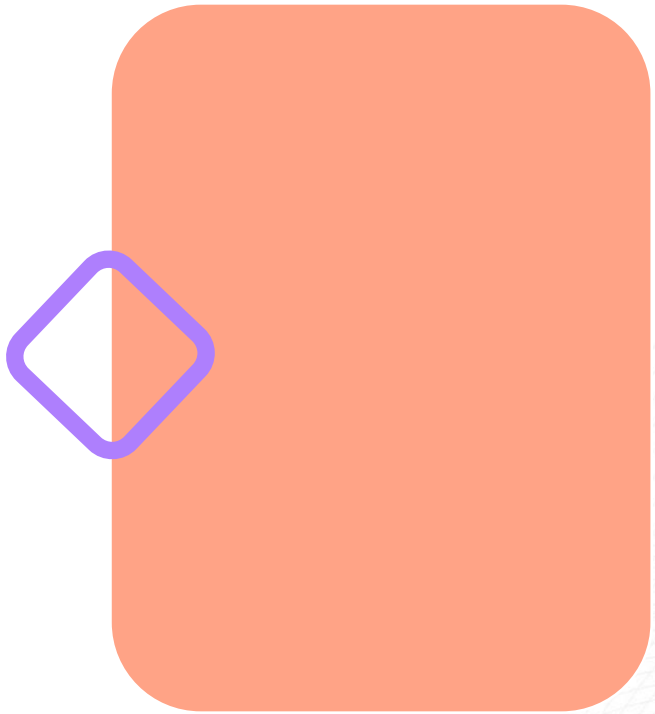
Testing: The team performs various types of testing, such as usability testing and browser compatibility testing, to ensure that the website is user-friendly and functions properly on different devices and web browsers.

Deployment: Once the website has been tested and deemed ready for launch, it is deployed to a live web server and made available to the public.

Maintenance: The team provides ongoing support and maintenance for the website, including updating the content and making any necessary changes or enhancements to the website's design or functionality.

Next Session

SDLC models



Thank you!

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