

Tutorial 3

Exercise 1:

Instructions: For each task described below, identify the corresponding phase of the SDLC

Task Description	SDLC Phase
1. Writing the system design document, including details for the database and user interface.	
2. Running structured tests to ensure all system components work together properly.	
3. Evaluating technical feasibility and financial justification for a new system request.	
4. Writing the actual software code based on the system design document.	
5. Converting old system data and providing user training on the new system.	

Exercise 2:

Complete the following table by selecting the correct methodology for each description, or by providing the correct term.

Description	Term/Methodology
1. Focuses on quickly building a working model and using user feedback to update it.	
2. A change in strategy (or idea) decided by the Lean development team based on MVP feedback.	
3. This methodology is better suited for large, resource-intensive projects .	
4. A set of methodologies that use incremental, iterative changes released within a timebox .	
5. The design stage is characterized as Interactive , involving user representatives18181818.	

Exercise 3:

Match the term on the left with its correct definition or key feature on the right.

Term	Definition / Key Feature
1. Integrated Development Environment (IDE)	A. A tool that allows a designer to develop software with little or no programming by writing code for them.

Term	Definition / Key Feature
2. Unit Testing	B. A structured set of tests to evaluate different parts of the code to detect errors or bugs
3. CASE Tool	C. A software tool that provides an environment with a code editor, a compiler, and a debugging tool for programmers
4. Iterative Development	D. An approach where the complete set of system requirements is often unknown at the start of the project

Exercise 4:

Read each scenario and identify the best implementation methodology

Scenario	Implementation Methodology
1. A government agency must upgrade its email system but cannot risk any downtime, requiring a seamless backup plan.	
2. A large international retailer wants to test its new inventory management system in one small regional warehouse before rolling it out globally.	
3. A startup needs to launch its new system as quickly and cheaply as possible, accepting a higher level of risk.	

Exercise 5:

Answer the following questions:

1. What is the primary objective of the **Lean methodology's MVP** (Minimum Viable Product)?
2. During the **Tests** phase of the SDLC, what is the specific purpose of **User Acceptance Testing (UAT)**?
3. What is the primary difference between a **Compiler/Interpreter** and a **Debugging Tool** within an IDE?
4. Besides fixing reported bugs, name one other key activity that occurs during the **Maintenance** phase of the SDLC.
5. Why is **Change Management** considered a critical component of IT monitoring when transitioning to a new system?