

NEXT Ventures

Internship Assessment – Software Development Life Cycle (SDLC)

Candidate Name: Md. Sifat Bin Asad

Date: 12/05/2025

Sec on A: Short Answer Ques Ans

1. What does SDLC stand for?

Ans: SDLC stands for Software Development Life Cycle.

2. Name two commonly used SDLC models.

Ans: Iterative and Agile.

3. What is the main objective of the testing phase in SDLC?

Ans: The main objective of the testing phase is to ensure the project is functional or not and to find out the errors present in the code.

4. Define "feasibility analysis" in the context of SDLC.

Ans: In the context of SDLC feasibility analysis is to check if the project is profitable or not.

5. During which SDLC phase are requirements collected from stakeholders?

Ans:

6. What is a "deliverable" in software development?

Ans: "Deliverable" means if the project is ready to be delivered to the users or not.

7. State one advantage of using the Agile model.

Ans: Highly flexible and adaptable.

8. Which phase involves designing the software architecture?

Ans: The Design phase.

9. What does "deployment" mean in SDLC?

Ans: "Deployment" means launching the product in the market and making it available for all the general users.

10. What activities are typically performed in the maintenance phase?

Ans: In the maintenance phase mainly the post deployment services are provided. For example, regular maintenance of the product and handling the errors or bugs faced by the users, solving any new errors that arises etc.

Sec on B: Medium Answer Ques ons

11. List and briefly describe any four phases of the SDLC.

Ans:

- a. Requirement analysis: In this section the main requirements of the clients are gathered and documented.
- b. Planning and Design phase: here a basic design is made to get the confirmation of the clients and to ensure that the developers and the clients are on the same page about the final product.
- c. Development phase: The main development of the project is done here by coding.
- d. Testing phase: after completing the coding the project is tested in this phase to check if all the functional requirements are fulfilled or not and also it checks the performance of the product.

12. Explain the Waterfall Model and mention a suitable use case.

Ans: Waterfall model is a linear model where the development progresses linearly. In this model the whole project development is separated into different phases. Like requirements gathering, planning and design, development etc. Suitable use case of the waterfall model are the projects of which the developers have a clear idea about how it's done and what are the things that needs to be done in which phase. Because there is a big flaw of the waterfall model that is we cannot backtrack to a previous phase. Once a phase is passed, we cannot do that phases work again to fix any error or change anything.

13. Highlight three key differences between Agile and Waterfall models.

Ans: 3 key differences between agile and waterfall models are:

- a. Flexibility: While the waterfall model is not change friendly and offers no option for backtrack the Agile method is change friendly and can be changed at any point of the timeline.
- b. Customer Involvement: in the agile method is the developers takes the feedback from the customers and modifies the project accordingly but in the waterfall model there is no option for customer involvement.

- c. Documentation: in the waterfall model after every phase a detailed documentation is done in order to keep track of every work but in Agile there is very less documentation which can lead to future issues.

14. Distinguish between functional and non-functional requirements with examples.

Ans: functional requirements are the requirements that are necessary for the product to do the base work. For example, for an online shop website the requirements like browsing the products and placing order and handling the order is the basic requirement except which the shop won't even be usable to the customers. So, these are the functional requirements. And nonfunctional requirements are the requirements that are not related to the main functionalities but its done to ensure security of data and ensure user satisfaction. Like security, user friendly UI, login etc.

15. Identify two stakeholders involved in SDLC and describe their roles.

Ans: General Users: the end user for the product who will directly use the product.

Client: the people who ordered the product to the developers with requirements.

16. Define User Acceptance Testing (UAT) and explain its significance.

Ans: UAT is the testing done to check if the project is suitable and acceptable for the users or not. It is a significant part of the SDLC because it defines how much the product is acceptable to users.

17. What is change management in the context of SDLC?

Ans: change management is a important part of SDLC where the change in requirement or anything is handled.