Assignment

1. **What is SDLC? Why is it important ?**

Software Development Life cycle(SDLC)

It helps developers to create high-quality software products and provides a foundational framework for all project activities.

The SDLC great importance as it provides developers with a standardized procedure with well-defined deliverables and activities

The goal of the SDLC is to produce superior software that meets and exceeds all customer expectations and demands.

2. **Phases of SDLC and each phase's importance?**

There are 7 phases of SDLC which includes Planning, Analysis, Design, Build, Testing, Deploy, and Maintain.

Planning - It is to determine the scope of the project.(Inputs for the project, resources, Project schedule, cost estimation,etc)
Analysis - Need to understand the requirement, structure of the whole project
Design - Will start working on the project based on given requirement
Build - Source code compile with required libraries
Testing - It helps to ensure the quality of web applications.
Deploy - The project has to be delivered to the production or testing stage
Maintain - Once the project is deployed to production, It has to be maintained to make sure that will fix the feedback bugs/errors to run the project continues without issue.

3. **Different models in SDLC and famous among them?**

There are 7 models in SDLC

Waterfall Model
Agile Model
V-Shaped Model
Iterative Model
Prototype Model
Spiral Model
Big Bang Model

Most famous model is **Agile**

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4. What is waterfall and Agile?

Waterfall	Agile
It is linear and sequential methodology	It follows incremental approach methodology
It divided into distinct phases	It separates the product life cycle into sprint
It will be completed as a one single project	It will be a collection of many different or subdivision project
No change requirements once projects starts	Have flexibility to change the project requirements

5. What is agile and devops?

Agile	DevOps
Software Development methodology	End to End Business solution and fast delivery.
Agile refers to an iterative approach which focuses on collaboration, customer feedback, and small, rapid releases.	DevOps is considered the practice of bringing development and operational team together
Agile helps to manage the complex project	DevOps central concept is to manage end to end process
Feedback is given by the customer	Feedback comes from the internal team.

6. What are agile ceremonies?

Sprint planning - Team members of the project will have MoM and start to assign the project as per the role and requirements, scheduling the project phases, Tool requirements etc

Daily standup meeting - Resources will update the progress about assigned task

Sprint Review - It will be conducted every two to four weeks to review every stage of the project. So, the errors can be fixed at an early stage, projects can be updated with new changes etc.

Sprint Retrospective - Discussion about what went well, what needs to be improved, What needs to be wiped out, any blockage.

Backlog refinement - Defines the priority of the Tasks.(Example: which task is first priority, which is second etc)

Assignment

7. **What are the different tools you use in devOps as per the SDLC?**

Collaboration/Tracking - JIRA,confluence, Github pages, Azure boards
Build/Integration - Jenkins, maven, Github, Git bucket, Bitbucket
Testing - Selenium, Cucumber, Junit
Deployment - Ansible, Chef, puppet, terraform
Monitor/Run - AWS, GCP, Azure, Kubernetes

8. **What is devOps and its lifecycle ?**

DevOps is a combination of Development and Operational. It is a methodology in software development.

DevOps is an automation process to deploy multiple environment concepts.

DevOps LifeCycle