ISM101 – Information Systems Management

Participation Exercises #4

Name: Aldenir D Flauzino **Student No.:** CT1010383

1. Who is responsible for writing the actual code for the software in the SDLC?

   A: Developers

2. Can you provide an example of a widely used Version Control System (VCS) mentioned in the text?

   A: GIT is a distributed version control system widely used around the word. It allows that multiple developers to work on the same project simultaneously, without overwriting each other's work. GitHub, GitLab, or Bitbucket are some of the most popular cloud-based repositories for storing code and collaborating teams

3. What is the purpose of User Manuals in the Software Development Life Cycle (SDLC)?

   A: The purpose of User Manuals in the Software Development Life Cycle (SDLC) is to offer guidance and instruction on how to use the software,helping end-users navigate and make the most of its features, and troubleshoot it

4. In the context of software development, what is the role of Automated Testing Tools?

   A: Automated Testing Tools in software development help ensure the quality and reliability of code by automatically running tests on the software. They identify bugs, verify functionality, and check for performance issues faster and more consistently than manual testing. These tools help improve efficiency, reduce human error, and enable frequent testing, especially in Agile and Continuous Integration/Continuous Deployment (CI/CD) environments.

5. How is "Scope Creep" defined in the SDLC, and why is it considered a challenge?

   Scope Creep, in SDLC, refers to uncontrolled and unmanaged expansion of the scope of the project after it began, often due to additional features, requirements, or changes not originally planned for. This can occur when stakeholders continuously add new tasks or features without properly evaluating their impact on the timeline, budget, or resources. It's considered a challenge because the team probably will need to deal with *delays*, once new requirements or changes can extend the project timeline, *budget overruns,* since new features or tasks can increase the cost of the project, *quality*

Issues,constantly changing requirements can lead to rushed work, increasing the risk of defects, turnover and team motivation, uncontrolled changes may be stretched to the team, causing demotivation, burnout and/or inefficient use of human resources.

Critical Thinking Questions:

6. Why is it important for Business Analysts to bridge the gap between the technical team and the business stakeholders? What potential issues might arise if this role is neglected?

   Business Analysts are crucial for bridging the gap between the technical team and business stakeholders because they ensure clear communication, align business needs with technical solutions, and translate requirements into actionable plans. They are who convert business needs into technical instructions. If this role is neglected, potential issues include misunderstandings, misaligned expectations, scope creep, and the delivery of solutions that don't meet business objectives or user needs.

7. Consider the analogy of Quality Control (QC) and Quality Assurance (QA) in the text. How can a strong focus on QA in the early stages of SDLC potentially reduce the need for QC later on? Provide examples.

   Once Quality Assurance (QA) prevents defects from occurring in the first place providing process and standards to ensure quality throughout the development cycle, a strong focus on QA can address potential issues proactively, rather than reactively identifying defects after development.

   Example: In Agile, QA involves continuous testing and feedback at every sprint.This early validation ensures that most issues are identified and fixed during development, reducing the need for extensive Quality Control (QC).