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Assignment - 2

1) what is risk assement in the context of software projects and why is it essential

→ Risk assesment in context of software projects involves identifying analyzing and prioritizing potential risks that could impact project success

1) Early problem identification
It helps identify and uncertainies before they become critical problem allowing teams to address them proactively

2) Resource Allocation
It assists in allocating resources, buget & time effectively to manage and mitate risks

3) prioritization:
Risk assesment helps in prioritizing risks based on their impact and likehood, allowing teams to focus on threats

4) cost saving
Identifying and mitigating risks early can save time and money that would otherwise be spent on fixing issues

5) project success
Effective risk assesment contributes to higher likelihood of project success by reducing the impact of negative

(Q2) Explain the concept of software configuration management and its role in ensuring project quality

→ software configuration management is set of practices, processes and tools used to manage and control changes to software project throughout their lifecycle

1) version control
SCM system track changes to source code, documents and other project artifacts, allowing teams to manage different version of software components

2) change Management
SCM helps in managing and documenting all changes to the software. This is crucial for understanding why a change was made

3) configuration identification
SCM defines and identifies the software's configuration items, which include all component and document

4) Baseline management
SCM establishes baselines which are well defined snapshots of project at specific points for develop ment

3) How do formal technical reviews contribute to ensuring software quality and reliability

→ Formal technical review are systematic well structured process for reviewing and evaluating various artifacts and aspect of software development such as requirment, design, code and documentation.

1) Defect identification: FTR provide a struced environment for participants to reiew and analyze the software artificats thrughly

2) Code quality: code review in FTRs assess the code quality, readability and adherence to coding standards

3) Risk mitigation: FTR helps in early detection and mitigation of technical and project risks, such as architetural issues

4) Documentation Accuray: Reviewing documentation ensures that accurately represent the software and its functionality

5) Quality culture: Incorporating FTR into development process fosters a culture of quality and reliability with the development team

4.) Describe the process of conducting a formal walkthrough for software project

→ conducting a formal walkthrough for software project is like taking structured walk through the project to find and fix any problem

1.) preparation: First everyone gets ready the people who made the software and those who are going to review it all

2) meeting time: people involved gather together at set time and place or some time, virtual to discuss software

3) Role Assigment. In meeting there are different roles one person leads the discussion and other play role of reviewers

4) Discussion: As they 'walk' through the software, they talk about what they see reviewers ask question and point out any problem they find, just like talking about things during tour

5) why is it important to consider software reliability when analyzing potential risks ?

→ user satisfaction Reliability ensure that software functions correctly and consistly
cost failure unreliable software can lead to increased support and maintenance costs

- Bussiness Impact software reliabity is often directly lied to bussiness operations
- Reputation damage software faliure can harm organization reputation negative user experience data breaches
- legal compliance risks: In certain industries, software reliability is tied to legal and regulatory compliance
- project delay unanticipated reliability issues can lead to project delays as teams must divert resource to address these problems