Assignment no :- 06

Topics covered :- • Software Risk analysis & Management
• Quality assurance
• Technical Review & software reliability
• Software configuration Management

Date of performance :- 29-09-22

Evaluation Criteria	Marks (out of 3)	Date	Signature of Instructor
Punctuality	2.1	29-09-22	
Problem solving technique	2.2		
Attainment level (out of 3)	2.2		

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Assignment No-06

Q.1) Explain risk analysis & management

- Risk analysis is a process that help you to identify & manage potential problems that could undermine key business initiative or project ; However, it can be also applied to the project outside of business ,such as organization event or even buying a home

To carry out risk analysis project must first identify the possible threats that you face, then estimate their likely impact if they were to happen , and finally estimate the likelihood these threats will materialize.

Risk analysis can be complex, as you need to draw on details information sources project plans , any other relevant information. However it is essential planning tool , and one that could save time, money , & reputation.

When use risk analysis

1. When you're planning project to help you to anticipate & neutralize possible problems
2. When you decide, whether or not move forward with project
3. When your' improving safety & managing potential risk in the workplace

- How to manage the risk

① Plan management :- It is the process of defining how to perform risk management activities for a project

② Risk identification :- It is the plan of determining which risk may affect the project most

③ Perform qualitative risk analysis :- It is process of prioritizing risk for further analysis of project risk on overall.

④ Quantitative risk analysis :- It is the process of numerically analyzing the effect of identified risk on overall project objective

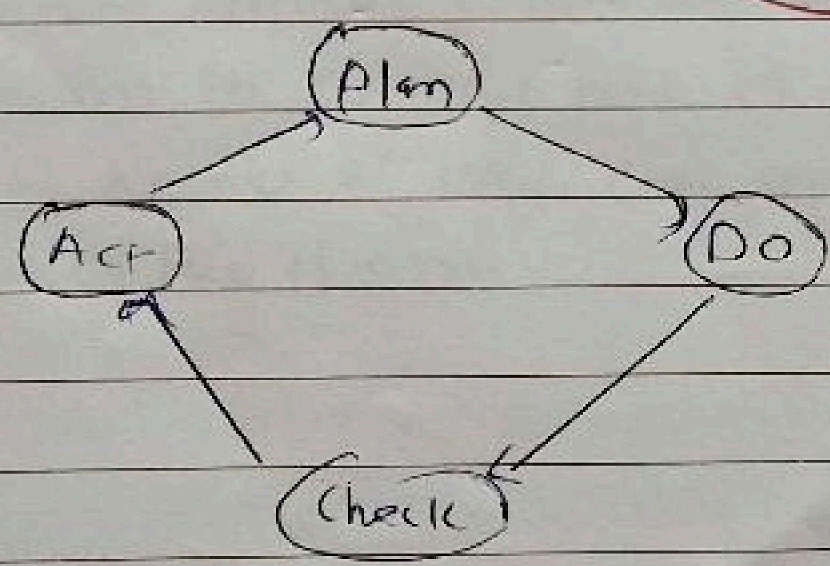
⑤ plan risk response :- To enchance opportunities and to minimize threat to project. Select plan risk response is helpful.

⑥ Control risk :- Control risk is the process of tracking identifying risk, identifying new risk, monitoring residual risk re-evaluating risk

2) Describe quality assurance matrix

Quality assurance matrix is standardize process that importance to customer satisfy and evaluate the robustness of maintaining and improving process using the potensity or actual seriousness of the concern

- Quality assurance methodology has a define cycle called PDCA cycle or deming cycle. The phase of their cycle are
  - Plan
  - Do
  - Check
  - Act



Plan: Organization should plan and establish the process related objective to determine the process that are required to deliver a high-quality end product

DO :- Development and testing of process and also "roll" changes in the process.

Check : Monitoring of a process, modify the process, and check whether it meets the predetermined objective.

Act : Quality Assurance tester should implement actions that are necessary to achieve improvement in the process.

~~(Q.3) Describe the technical review of s/w quality~~

Q.3) Describe technical reviews and software reliability

A software technical review is examining by a team of qualified software engineers for the suitability of the software product. This process can also be define a critical evaluation of an object in the software.

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Through the software technical review process we can identify the error or defect in the software product in the early phase itself.

Software Reliability means operational reliability which is described as the ability of a system or component to perform its required functions under stated conditions for specific period.

Software Reliability is also defined as the probability that software system fulfills its assigned task in a given environment for a predetermined number of input cases assuming that the hardware and the input are free of error.

Q.4) Explain the S/W configuration management

we develop software the product (software) undergo many change in their maintenance phase, we need to handle them change in very an effectively

- Several individual (programs) work together to achieve these common goals. The individual product some work product.

- Eg. intermediate version of module or test data and used, during part of final product

- The element that comprise all information products as a part of the software process are collectively called as software configuration

- ~~As the~~
- As S/W development progress, the no. of software configuration element grow rapidly

- these are handle and controlled by SCM this is where we require software configuration management

- A configuration of the product refers not only the product constituent but also to a particular version of the component

- Configuration management (CM) is technique of identifying, organizing & controlling modification to software being built by a programming team.