

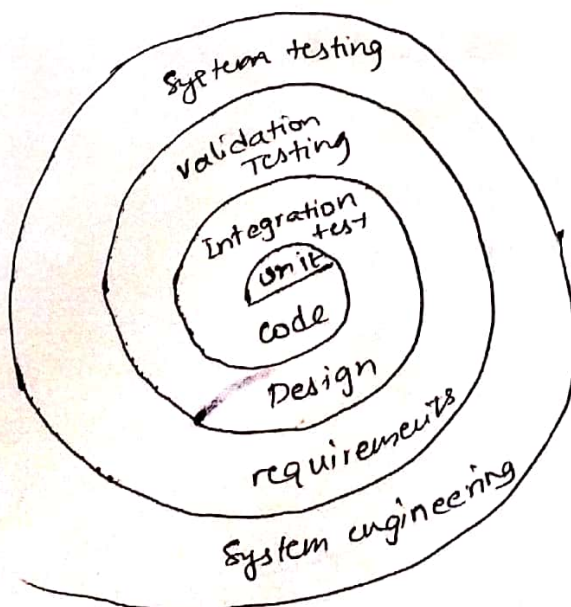
7.

Software Testing Strategies

- describe the steps to be conducted
- effort, time and ~~and~~ resources will be required
- test planning, test case design, fast execution, and resultant data collection & evaluation
- reasonable planning and management tracking as project progresses
- Testing - process - intent of finding errors prior to delivery to the end user

strategic Approach to software testing

- To perform effective testing - technical reviews
- Testing begins at the component level
- Different testing techniques.
- Testing is conducted - by independent group
- Testing and debugging are different activities

Software Testing strategy

9. Capability Maturity Model Integration

CMMI, a comprehensive process meta-model that is predicated on a set of system and software engineering capabilities that should be present as organizations reach different levels of process capability and maturity.

CMMI, represents a process meta-model in two different ways. (1) as a "continuous" model (2) as a "staged" model

Levels of CMMI

Each process area is formally assessed against specific goals and practices and is rated according to following capability levels.

Level 0: Incomplete

Level 1: performed

Level 2: managed

Level 3: Defined

Level 4: quantitatively managed

Level 5: optimized

The CMMI defines each process area in terms of specific goals and specific practices required to achieve these goals. Specific goals establish the characteristics that must exist if the activities implied by a process area are to be effective. Specific practices refine a goal into a set of process-related activities.

CMMI also defines a set of 5 generic goals

(GG) (GP)
The Generic goals and practices for the project planning process area are:

GG 1 Achieve Specific goals

GP 1.1 perform Base practices

GG 2 Institutionalize a Managed process

GP 2.1 Establish an organisation policy

2.2 plan the process

2.3 provide resources

2.4 Assign responsibility

2.5 Train people

2.6 Manage Configuration

2.7 Identify and involve relevant-stakeholders

GG 3 Institutionalize a Defined process

GP 3.1 Establish a defined process

3.2 collect improvement information

GG 4 Institutionalize a Quantitatively Managed process

GP 4.1 Establish a quantitative objectives for the process

4.2 stabilize subprocess performance

GG 5 Institutionalize an optimizing process

GP 5.1 Ensure continuous process improvement

5.2 correct root cause of problems

Specific goals of CMMI

- 1) Establish Estimates
- 2) Develop a project plan
- 3) Obtain commitment to the plan