

SE Assignment - I

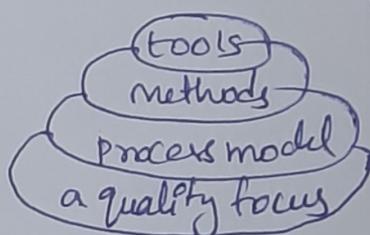
N.B. Deepthi
18C071RA1236

- 1) Justify that Software Engineering is a layered technology.

Ans:- 1) SE main goal is to build a high quality software

- 2) SE rests on a goal - an organization's commitment to produce top quality product.
- 3) Methods provide the concrete technical how-to for building SW

Software Engineering



- 4) Bottom layer is claims the quality which is extremely essential for software product.
- 5) Process layer is where main software engineering activity begins
- 6) IE from main source to adhere technology on time deliveries
- 7) Process events impact SE in 2 levels
 - a) Designing framework
 - b) Management level

- 8) Methods specifies a criterion in construction of high quality software
- 9) Tools form major source for development
- 10) Process and method depend on tools for implementation

2) Explain how process framework establishes foundation for a complete software process.

Ans:-

- Process framework
- Framework activities
- Work tasks
- Work products
- Milestones & deliverables
- QA checkpoints
- Umbrella activities

→ Framework activities

- 1) Initiation (communication) gather requirement, collaboration with customers
- 2) Planning : describes technical wish list of resource requirement
- 3) Modeling: creation of model to help develop, customer understand requirements
- 4) Analysis of requirement
- 5) Design model
- 6) Code development
- 7) Testing
- 8) Deployment.

→ Umbrella activities

- 1) SW project management
 - 2) Formal technical reviews
 - 3) Risk management.
 - 4) SW assurance of for quality
 - 5) Reusability management
 - 6) Work product preparation & production
- 3) Compare Incremental & Evolutionary models.

	Evolutionary	Incremental
1)	Supports changing requirements	1) changing st. requirements is cost effective but not suitable
2)	Progress is depends on risk analysis	2) Possibility of measuring progress.
3)	Compatibility is desirable	3) Compatibility is necessary.
4)	Designed to adopt quickly and easy to understand.	4) Working versions are produced quickly.

ii) Analyse non-functional requirement.

Ans. → They define system properties & constraints

→ Ex:- Reliability, response time

→ Non-functional requirements :-

i) Product requirement :- Requirements which specify that delivered product must behave in particular way
Ex:- use interface for LIBSYS

ii) Organisation requirements :- which are consequence of organisation policies and procedures

Ex:- system development process

iii) External requirements :- which arise from factors which are external to the system and its development process

Ex:- legislative requirements.

5) Explain levels of capability maturity model :-

Ans. - CMMI defines each process area in terms of specific goals

levels :-

Level 0% - Incomplete (Process is not performed)

Level 1% - Performed (Work products are being conducted)

Level 2% - Managed (People doing work have a way to delegate resources)

Level 3% - Defined (document & standardise)

level 4s - Quantitatively Managed

level 5s - Optimizing (continuous process improvement)

→ End ←