8-Jan-2023 SEPM

Maintain Notebook

* What do I expect from software engineering and project management?

→ • How to manage software projects
• What roles are played in a software project and ~~how~~ what is done by each role

* Why to learn SEPM?

→ • ~~Reduce~~ learn from the mistakes made ~~by~~ previously
• Reduce the amount of mistakes made in handling a software project.

* What are the POs (Program Outcomes), PSOs (Program Specific Outcomes).

* "You cannot improve anything you cannot measure"

* Network diagrams are used for describing projects and describing their dependencies.

9-Jan-2023 SEPM

*What is software engineering? What is your understandi

→ software engineering is the study of how to develop and implement.

* Software vs Programs

→ software is a collection of large amount of programs & includes a lot of activities along with coding.

* ~~Differen~~ Making v/s Engineering.

→ Making is the exploratory phase of engineering.
Engineering is a structured and organized effort to build for the masses.

* Intro to SE, ~~exercise~~ Process, CMM, Prescriptive Models, Agile

* In software engineering, coding happens less than 20% of the time.

What is software?

- instructions
- data structures ⇒ design on a broader level.
- documentation
  - Requirements
  - Architecture / Design ⇒ how components interact with each other.
  - Techical
  - End user
  - Marketing.

* "What User says and what user means may also be different?"

Software Products:

Generic - the requirements are identified by the SE team.

Customized - the requirements are specified by the end user.

Software engineering:
the establishment and use of sound engineering principles in order to obtain economical software that is reliable and works efficiently on real machines.

* Act fast.
* career in engineering starts small.
* Why Software is Important?
  - all developed nations are dependent on software.

11-Jan-2023

Software Engineering and Project Management.

Software costs.

- costs more to maintain than develop. cost-
- SE (software engineering) is concerned with effective software development.

* How will you decide when there are 2 quotations for 3 lakh, 5 lakh and 50 lakh.
* Human networking provides opportunities.

Features of Software.

* Products (Software) deteriates over time even if nothing changes with the software due to changes in the market.
* Component based construction
* Most software continue to be custom-built.

Software Applications

→ System software
→ Application software
→ Engineering/Scientific software.
→ Embedded software
→ Product line software.
→ Web Apps.
→ AI tools

When you start learning RL

* ~~[illegible]~~
* value creation.

12-Jan-2023.

CPMCD ⇒ Generic process followed by companies.

Communication, Planning, Modeling, Construction, Deployment.

→ Analysis of requirements
→ design

coding & testing

~~Capi~~ Capability Maturity Model (CMM).

- capability to be mature.
- A good manager is the one that makes the next good manager.

Levels of CMM:

~~Process~~

BLOOMS TAXONOMY

Different approaches for CPCMD followed by companies.

PROCESS MODELS: Different processes models that follow the generic CPCMD.

* Waterfall Model ⇒ used when requirements are stable and well understood, very short timeline
  → Most primitive model.
  → Generally doesn't work.
  → Unrealistic to not have change.

16-Jan-2023.

* V - Model.
  → Focuses on verification & validation at each step.

* The Incremental Model.

* The RAD Model. ⇒ Rapid Application Development.
  → Very fast cycle (60-90 days)

* Evolutionary Model.
  → Prototyping.
  → The Spiral.

Graduate Aptitude Test Examination. x for Engineering.

* Unified Process → inception
  → elaboration
  → construction
  → transition.

* Study any two DevOps tools not in experiments 23-Jan-2024

→ all digital.

Agile Development.

→ Prescreptive models became less suitable for development after .NET, Java

→ Something different was sought.

→ Customer is the one who pays the team

→ Be in regular contact with your customers.

★ → Agile is only possible if the customer is willing to collaborate (at least once a week).

→ Customer itna involved rehta hai ki dimaag ka dahi ho jaata hai.

Q What is Agility?