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Software Engineering

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Q-1)

Different use cases for the given scenario are:

1. View Report card
2. Register for courses
3. Login
4. Selection of courses to teach.
5. Submit grades
6. Maintain professor info
7. Maintain student info
8. Close Registration.

→ View Report Card: This use case is linked to the actor 'student'. It is related with showing the report card.

→ Register for courses: This use case is linked with 'student' and 'course catalog' actor. It allows the student to register for courses from the course catalog.

- Login : It is linked with the login of actor 'student' 'professor' and 'Registrar'.
- Solution of courses to teach : The actor 'professor' needs to select the courses.
- Submit grades : This use case is linked to the actor 'professor'.
- Maintain Professor info → It is salinked to the Registrar actor. It is linked to maintaining information of professor of school.
- Close Registration → Closing the registration use case is linked to the actor 'Registrar' and 'Billing system'.

Q-2) SEI - CMM level

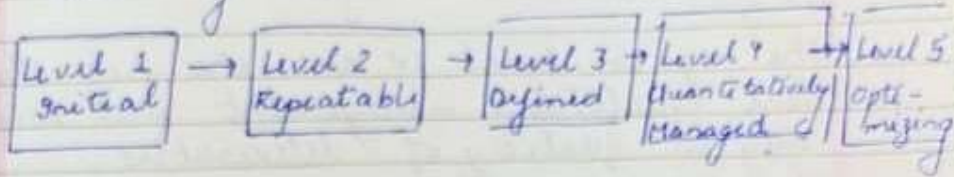
It stands for software engineering institute capability maturity mode.

The CMM is procedure to develop and reform an organization's s/w development process.

The model defines a 5-level evolutionary stage of increasingly organized and consistently more mature process.

It is used trademark to measure maturity of org. software process.

Levels of SEI-CMM



Stage I → The organization in initial stage will not have KPA's, it will have lesser quality employees, the quality of product won't be as good both in terms of customer convenience and in terms of technical advancement.

Stage II → Repeatable
It is used to describe organization with repeatable process flow. Linear 1 or 2 projects are succeeded same pattern will be followed for upcoming project with comparable behavioural constraint. This is CMM of SEI CMM.

Stage III → Well-Defined

The s/w development organization that go one step beyond CMM2 org are under CMM3.

These org-use definite flow for dev. process, creating documentation in each step of development flow, the employees are made to mark as a team CMM.

Stage IV Well managed

The org. in level IV are the ones that have qualified management and focuses only on quality of deliverables. They have several measures for self-assessment and organization are called of CMM.

Stage II - Optimization.

The org past the CMM, follow well defined management process pattern, frequently evaluated process and product method in organization, helps the employee to keep up their skills by providing training frequently with respect to technological growth in industry etc. They are called CMM's

SEI-CMM is useful and vital parts of software industry.

Quality Deliverables.

- Higher client contentment
- Easier and effective management
- Cost efficient
- Being more business-oriented.