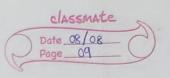
TUTORIAL - 2



U19cs012

	UI9CSOI2	
a l	Straight softwar?	
1)	What are the main differences between student software & Industrial-	
	Scaled that every with at expands prospered tent	
17		Industrial-Strength software
•	Built for demonstration purpose	@ Built to solve some problems for
0		for operating some part of
3	Usually small is size	1 darge in size
9	Author is sole user	a darge number of users.
(5)	Cool or Loss divelopers	5 Team of developers
0	Looke detailed requirements	That detailed requirements.
(Lacke proper user interface.	1 well designed interface
0	Locks proper documentations.	(8) well documented of user manual prepared.
	U U	
9	Less effects in testing	@ Rigorous Testing
0	Adhoc developing	© Systematic Development.

the system.

2 y Suppose Changes are to be made to a software system that is in operation. Why will changes to such a system cost a lot more than just making changes to the source code files? 2.7 -> Usually, changes during software development leads to rework. This is because complete requirements are not present at the start and dient's needs tend to change. The maintenance to development ratio is 80:20, 70:30 or 60:40, this is because mountenance required - understanding existing suftware - understanding the effects of change - making the change - Testing the new parts - Rogression Jesting [Retisting old parts that were not changed] 3.> Consider the description of Palient information system called Mentione. a) Identify stakeholders of the Mentean System. - Patients whose information is recorded in system. - Doctor who are responsible for accessing and treating patients Nuxed who co-ordinate the consultation with doctors and administer some treatments. - Medical receptionist who manage patients data & appointments

IT Staff who are responsible for installing and maintaining

- A medical ethics manager ensures that the system meets current ethical guidelines for patient care.
 - Health care managers obtain information from system
 - Medical record staff ensures that systems into con be maintained and preserved, and that record keeping procedures have been properly implemented.
- b) Identify Functional requirements of the mentione System.
 - A user shall be able to book / search the appointment list
 - The System shall generate each day, for each clinic, a list of patients who are expected to attend appointments that day

 Each Staff member using the system shall be uniquely identified by his/hor 8-digit Employee ID.
 - Write each functional (if possible) requirement in form of user requirement and system requirement.
 - USER REQUIREMENT The Menticare system shall generate monthly management reports showing cost of drugs prescribed to each clinic during that month.
 - SYSTEM REQUIREMENT 1) On the East Working day of each month,

 a summary of drug prescribed, then cost

 and prescribing clinics shall be generated.
 - 1 The system shall generate report for printing after 17:30 on the last working day of the month.

- A report shall be created and shall just the individual drugnames, the total no. of prescription, no of dose prescribed and total cost of prescribed druge for each clinic.
- If drugs are available in different dose unils (e.g. 10 mg, 20 mg)
 Seperate reports should be created for each dose unit.
- Access to drug cost reports shall be restricted to authorized users as listed on a management access central list.
- d) Identify the non-functional requirements of menticare system?
 - i) The Montcare system Shall be available to all cities during normal working hours (mon-Fri, 8130-17:30) Downtime within normal working hours shall not exceed 5 seconds in any 1 day.
 - ii) Osers of the mentcare system shall authenticate themselved using their health authority identity card.
 - iii) the system shall implemented patient privacy provisions as set
- e) Categorize the above
 - Product requirement: Point (i) of above one wer (1)
 - Operational Requirement: Point (ii)
 - External Requirement :- Point (iii)

- f) Write each non-functional organizments in the form of a statement that can be quantifiable and objectively verifiable.
 - The system should be easy to use by all medical staff and should be organized in such a way that user errors are minimized [GOAL]
 - medical Staff should be able to use all the system tunetions after a hour of training. After this training, the average number of errors made by experienced users shall not exceed two per hour of system use. [Testable non-Functional Dequirements]
- g) Identify ambiguities it any in the given requirements.

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- > The extent to which the potient's privacy can be protected while retrieving necessary data is not permitted mentioned.
- -> The exact timing of report generation not mentioned.
- That are the features that must be excluded from systems

 not connected to the controllized database (less secure ones to

 protect privacy of patients).
- 4.7 Discover ambiguited or omissions in the following (Given) statement of requirement for part of a ticket issuing system.
- Is it possible to the user to buy more than one hicker for the same destination or should the user buy them one by one.
- Is it possible for the user to concel a hicket before the transaction is complete.

- to case of wrong condition or credentials, what is the system's
- Doce the user have to input their credential or a specified time or can they input their credentials onlytime?
- another destination?
- Does the system print some sort of receipt of acknowledgement?
- 5.> Write set of non-functional requirements for the ticket-issuing system setting out its expected reliability and response time.

Mon-Functional requirements are-

- What is the security framework of the system
- The personal data of the user must be stored securely and the card reading equipment must be sake enought for everyone to use

Product Requirements:

- Usability: should have language options
- Effeciency: should run on embedded light hardware system
- Dependability: Should run under some schedule as bain
- security: should use secure protocal to transfer into for transactions and proper security on cord readers.
- Organisation Requirement: - should use light weight program architecture Externed Requirement: - may include authority on transaction history of the user.

6>	What are the main error types for requirements?
	People Errors: include errors that occur du to people involved in requirements preparation. It could be due to poor communication, participation, domain knowledge, specific knowledge, applications, process execution or other cognition.
	→ Process Errors: - include errors that occur due to inadequate requirement engineering process, and selecting wrong means of acheiving goals and objectives.
	Documentation Errors: - includes errors that occurs due to incorrect organization and specification of requirements regardless of whether the requirements author or understood correctly or not.