SE 2001: Software Requirements Engineering (B)

Quiz 3

Time: 20 minutes   Max Marks: 20   Roll No. ____Solution____

List the elicitation technique that you think will be most appropriate for the following situations. Provide your reasons for choosing a particular technique. If you only list the technique without any justification, you will not be awarded any marks. Justification should not take more than 3 lines.

a. You are working as an assistant librarian in a university library for a few years. You have some computer science knowledge in your previous education. During your studies you have developed some web applications and these days you are keeping yourself updated regarding new trends in web application development. One day your chief librarian, who is near his retiring age, informs you about having a web based library system in your library. The university management has approved the development of the system and the chief librarian is asking your opinion regarding the next step. The chief librarian is not very fond of using computers and uses computers for mandatory tasks only. He sometimes is very late in responding to emails. Though the university management has approved the development of the new computerized system, you are aware that they cannot provide enough time to the developers and requirements engineers for question & answer sessions. You also do not expect them to respond quickly through email. Because of your previous knowledge and current interests, you decide to develop this project yourself and get approval of developing the new system in house.

Elicitation technique: Introspection

Reason(s):
- customers are not quick in responding
- customers do not have time to interact
RE person (and developer) has domain knowledge because (s)he is working in the same domain for a few years

b. Your software company is providing software based solutions to a client. They have asked you to develop another software system and this development project might take a few months or, maybe, a year or so to complete. In the initial meetings, system objectives have been identified and effectiveness of communication has been established. The client is available for meetings most of the time and is ready to provide requirements in written format almost every time. It has been decided to use agile process and the requirements will be implemented increment wise.

Elicitation technique: User stories

Reason(s):
- Client is available for meeting and is ready to provide written requirements when required
- Agile process is being followed

c. You are developing a golf coaching system which involves analysis of golfers' swings recorded through multiple cameras mounted in a coaching lab. The coaching system shall perform the swing analysis after a golfer has recorded his/her swings. This swing analysis is reviewed by a coach who is using this system in the analysis room to annotate the golfer's video and enter improvement related remarks. The reviewed videos are available for view on an interactive android screen in the lab where the golfer can see the reviewed 3D video from different angles. The coach is interested in details available in the video frames so that he/she can analyze the swing more accurately. The golfers, on the other hand, in addition to the accuracy are concerned about early screening of the reviewed video so that they do not have to wait too long before they see a review.

   Elicitation technique: Repertory Grid. Viewpoint (Partial credit)

   Reason(s):
   - Different perspectives for different stakeholders
   - The stakeholders (golfer + coach) are domain experts
   - There is a potential conflict between accuracy and early screening

d. The customer has verbally given you many requirements in the first meeting and you have realized that the customer will be available for future meetings multiple times in near future to finalize the requirements. The customer, however, does not look very keen of writing requirements or reviewing the written natural language sentences. You know you can develop this software application but you need to select an appropriate technique that can elicit the requirements. You have realized that you cannot specify a list of requirements and then send it to the customer for review.

   Elicitation technique: Prototyping

   Reason(s):
   - Customer not willing/interested in written statements
   - Customer is available for future meeting to finalize requirements i.e. review a prototype and provide feedback