



SNS COLLEGE OF ENGINEERING

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An Autonomous Institution



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DEPARTMENT OF COMPUTER SCIENCE AND TECHNOLOGY

COURSE NAME: 19CS603-Mobile Application Development

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Unit 1.8

Requirement Gathering Techniques

Techniques describe how tasks are performed under specific circumstances. A task may have none or one or more related techniques. A technique should be related to at least one task.

The following are some of the well-known requirements gathering techniques –

Brainstorming

Brainstorming is used in requirement gathering to get as many ideas as possible from group of people. Generally used to identify possible solutions to problems, and clarify details of opportunities.

Document Analysis

Reviewing the documentation of an existing system can help when creating AS–IS process document, as well as driving gap analysis for scoping of migration projects. In an ideal world, we would even be reviewing the requirements that drove creation of the existing system – a starting point for documenting current requirements. Nuggets of information are often buried in existing documents that help us ask questions as part of validating requirement completeness.

Focus Group

A focus group is a gathering of people who are representative of the users or customers of a product to get feedback. The feedback can be gathered about needs/opportunities/problems to identify requirements or can be gathered to validate and refine already elicited requirements. This form of market research is distinct from brainstorming in that it is a

managed process with specific participants.

Interface analysis

Interfaces for a software product can be human or machine. Integration with external systems and devices is just another interface. User centric design approaches are very effective at making sure that we create usable software. Interface analysis – reviewing the touch points with other external systems are important to make sure we don't overlook requirements that aren't immediately visible to users.

Interview

Interviews of stakeholders and users are critical to creating the great software. Without understanding the goals and expectations of the users and stakeholders, we are very unlikely to satisfy them. We also must recognize the perspective of each interviewee, so that, we can properly weigh and address their inputs. Listening is the skill that helps a great analyst to get more value from an interview than an average analyst.

Observation

By observing users, an analyst can identify a process flow, steps, pain points and opportunities for improvement. Observations can be passive or active (asking questions while observing).

Passive observation is better for getting feedback on a prototype (to refine requirements), were active observation is more effective at getting an understanding of an existing business process. Either approach can be used.

Prototyping

Prototyping is a relatively modern technique for gathering requirements. In this approach, you gather preliminary requirements that you use to build an initial version of the solution - a prototype. You show this to the client, who then gives you additional requirements. You change the application and cycle around with the client again. This repetitive process continues until the product meets the critical mass of business needs or for an agreed number of iterations.

Requirement Workshops

Workshops can be very effective for gathering requirements. More structured than a brainstorming session, involved parties collaborate to document requirements. One way to capture the collaboration is with creation of domain-model artifacts (like static diagrams, activity diagrams). A workshop will be more effective with two analysts than with one.

Reverse Engineering

When a migration project does not have access to sufficient documentation of the existing system, reverse engineering will identify what the system does. It will not identify what the system should do and will not identify when the system does the wrong thing.

Survey/Questionnaire

When collecting information from many people – too many to interview with budget and time constraints – a survey or questionnaire can be used. The survey can force users to select from choices, rate something (“Agree Strongly, agree...”), or have open ended questions allowing free-form responses. Survey design is hard – questions can bias the respondents.

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