# GICCL
# INFORMATION TECHNOLOGY

SOFTWARE REQUIREMENT ENGINEERING

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TOPIC

ELICITATION SOURCES AND TECHNIQUES

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## ELICITATION SOURCES AND TECHNIQUES

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# REQUIREMENT ELICITATION

✓ **WHAT IS REQUIREMENT ELICITATION?**

➤ REQUIREMENTS ELICITATION IS THE PROCESS OF THE GATHERING AND DEFINING THE REQUIREMENTS FOR A SOFTWARE SYSTEM.

➤ THE GOALS OF REQUIREMENTS ELICITATION IS TO ENSURE THAT THE SOFTWARE DEVELOPMENT PROCESS IS BASED ON THE CLEAR AND COMPREHENSIVE UNDERSTANDING OF CUSTOMERS' NEEDS AND REQUIREMENTS.

➤ REQUIREMENTS ELICITATION INVOLVES IDENTIFICATIONS, COLLECTIONS, ANALYSIS AND REFINEMENTS OF THE REQUIREMENTS FOR A SOFTWARE.

➤ IT IS THE CRITICAL PART OF THE SOFTWARE DEVELOPMENT LIFE CYCLE AND ARE TYPICALLY PERFORMED AT THE BEGINNING OF THE PROJECT.

# REQUIREMENT ELICITATION

- ➤ REQUIREMENTS ELICITATION INVOLVES STACK HOLDER FROM DIFFERENT AREAS OF THE ORGANIZATION, INCLUDING BUSINESS OWNER. ENDUES AND TECHNICAL EXPERTS.

- ➤ THE OUTPUT OF REQUIREMENTS ELICITATION PROCESS IS A SET OF CLEAR, CONCISE AND WELL-DEFINED REQUIREMENTS THAT SERVE THE BASIC OF THE DESIGN AND DEVELOPMENTS OF SOFTWARE SYSTEM.

# ELICITATION SOURCES AND TECHNIQUES

**REQUIREMENTS ELICITATION METHODS :**

➢ THESE ARE NUMBERS OF ELICITATION METHOD FEW OF THEM LISTED BELOW:

1. **INTERVIEW** :

➢ OBJECTIVE OF CONDUCTING AN INTERVIEW UNDERSTAND FOR CUSTOMER EXPECTATION FROM THE SOFTWARE. IT IS IMPOSSIBLE TO INTERVIEW EVERY STACK HOLDER HENCE REPRESENTATIVES FROM GROUPS ARE SELECTED BASED ON THEIR EXPERTISE AND CREDIBILITY, INTERVIEW MAY BE OPEN ENDED OR STRUCTURE.

➢ IN OPEN ENDED INTERVIEW THESE IS NO PRESET AGENDA. CONTEXT FREE QUESTIONS MAY BE ASKED TO UNDERSTAND THE PROBLEM.

➢ IN STRUCTURED INTERVIEW AND AGENDA OF FAIRLY OPEN QUESTIONS IS PREPARED. SOMETIME PROPER QUESTIONS ARE DESIGNED FOR THE INTERVIEW.

## 2. BRAIN STORMING SESSION :

- IT IS GROUP TECHNIQUE

- IT IS INTENDED TO GENERATE NEW IDEA, HENCE PROVIDE A PLATFORM TO SHARE VIEWS.

- A HIGHLY TRAINED FACILITATORS IS REQUIRED TO HANDLE GROUP BIAS AND GROUP CONFLICT.

- EVERY IDEA IS DOCUMENTED AND HENCE EVERYONE CAN SEE IT.

- THE OUTPUT OF THIS SESSION IS LIST OF IDEAS AND THEIR PRIORITY IF POSSIBLE.

## 3. FACILITATED APPLICATION SPECIFICATION TECHNIQUE (F.A.S.T) :

- ITS OBJECTIVE IS TO BRIDGE THE EXPECTATION GAP-THE DIFFERENCE BETWEEN WHAT THE DEVELOPER THINK. THEY ARE SUPPOSING TO BUILD AND WHAT CUSTOMER THINK THEY ARE GOING TO GET. A TEAM-ORIENTED APPROACH IS DEVELOPED FOR REQUIREMENT GATHERING. EACH ATTENDEE IS ASKING TO MAKE A LIST OF OBJECTIVES THAT ARE.

- PART OF THE ENVIRONMENT THAT SURROUNDED THE SYSTEM.

- PRODUCED BY THE SYSTEM

- USED BY THE SYSTEM

- EACH PARTICIPANTS PURPOSE HIS/HER LIST, DIFFERENT LISTS ARE THE COMBINED, REDUNDANT ENTITIES ARE THEM ELIMINATED AND FINALLY A DRAFT OF SPECIFICATION IS WRITTEN DOWN USING THE INPUT FROM MEETING.

4. **QUALITY FUNCTION DEPLOYMENT :**

- IN THIS METHOD CUSTOMER SATISFACTION IS PRIME CONCERN HENCE IT EMPHASIZES ON THE REQUIREMENTS WHICH VALUABLE TO THE CUSTOMER.

- THERE ARE THREE TYPES OF REQUIREMENTS ARE IDENTIFIED :

i.     **NORMAL REQUIREMENTS :**

➢ IN THIS OBJECTIVE AND GOALS OF THE PROPOSED SOFTWARE AND DISCUSSED WITH THE CUSTOMER.

**EXAMPLE:** NORMAL REQUIREMENTS FOR A RESULTS MANAGEMENT SYSTEM MAY BE ENTRY OF MASKS, CALCULATION, RESULTS.

ii.     **EXPECTED REQUIREMENTS :**

➢ THESE REQUIREMENTS ARE SO OBVIOUS THAT THE CUSTOMER NEED BUT NOT EXPLICITLY STATE THEM.

**EXAMPLE:** PROTECTION FROM UNAUTHORIZED ACCESS.

iii.     **EXCITING REQUIREMENTS :**

➢ IT IS THE FEATURES THAT ARE BEYOND THE CUSTOMERS EXPECTATIONS AND PROVE TO BE VERY SATISFYING WHEN PRESENT.

**EXAMPLE:** WHEN AUTHORIZED ACCESS IS DETECTED. IT SHOULD BACKUP AND SHUTDOWN ALL PROCESS.

## 5. OBSERVATIONS :

➢ USERS ARE SO FAMILIAR WITH EXECUTING A TASK THAT THEY CANNOT ARTICULATE WHAT THEY DO. PERHAPS THE TASKS ARE SO HABITUAL THAT THEY DO NOT EVEN THINK ABOUT IT.

➢ SOMETIMES YOU CAN LEARN A LOT BY OBSERVING DIRECTLY HOW USERS PERFORM THEIR TASK. OBSERVATION IS TIME CONSUMING SO THEY ARE NOT SUITABLE FOR EVERY USER OR EVERY TASK. IF YOU USE OBSERVATION IN THE AGILE PROJECT YOU HAVE TO DEMONSTRATE ONLY THE SPECIFIC TASK RELATED TO THE FORTHCOMING ITERATION.

➢ THERE ARE TWO TYPES OF OBSERVATIONS

i.   **SILENT OBSERVATION** (NON-PARTICIPATORY) IS APPROPRIATE WHEN BUSY USER CANNOT BE INTERRUPTED

ii.  **ITERATIVE OBSERVATION** (PARTICIPATORY) ALLOWED TO INTERRUPT THE USER MID TASK AND ASK QUESTIONS SOME TIME TO PARTICIPATE (IF POSSIBLE) IN A FIELD WORK.

**6.	QUESTIONERS :**

➢ QUESTIONERS IS A WAY TO SURVEY LARGE GROUP OF USERS TO UNDERSTAND THEIR NEEDS.

➢ THEY ARE INEXPENSIVE MAKING THEM A LOGICAL CHOICE FOR ELICITING INFORMATION FOR LARGE USER POPULATION AND THEY CAN BE ADMINISTERED EASILY ACROSS GEOGRAPHICAL BOUNDARIES.

➢ THE ANALYZED RESULT OF QUESTIONER CAN BE USED AS A INPUT TO OTHER ELICITATION TECHNIQUES.

**7.	SYSTEM INTERFACE ANALYSIS :**

➢ INTERFACE ANALYSIS IS AN INDEPENDENT ELICITATION TECHNIQUE THAT ENTAIL EXAMINING THE SYSTEM TO WHICH USER SYSTEM CONNECTS SYSTEM INTERFACE ANALYSIS REVEALS FUNCTIONAL REQUIREMENTS REGARDING THE EXCHANGE OF DATA AND SERVICES BETWEEN SYSTEM.

## 8. USER INTERFACE ANALYSIS :

- USER INTERFACE (UI) ANALYSIS AND INDEPENDENT ELICITATION TECHNIQUE IN WHICH YOU STUDY EXISTING SYSTEMS TO DISCOVER USERS AND FUNCTIONAL REQUIREMENTS.

- IF THERE IS NO EXISTING SYSTEM, YOU MIGHT BE ABLE TO LOOK AT THE USER INTERFACE SIMILAR TO YOUR DESIRED SYSTEM.

## 9. WORKSHOPS :

- WORKSHOPS ENCOURAGE STACK HOLDERS' COLLABORATION IN DEFINING REQUIREMENTS.

- A WORKSHOP IS A STRUCTURAL MEETING IN WHICH CAREFULLY SELECTED GROUP OF STACK HOLDERS AND CONTENT EXPERT WORK TOGETHER TO DEFINE, CREATE, REFINE AND REACH CLOSURE ON DELIVERABLE THAT REPRESENTS USER REQUIREMENTS.

**FOLLOWING ARE A FEW TIPS FOR CONDUCTING EFFECTIVE ELICITATION WORKSHOP MANY OF WHICH MAY ALSO APPLIED ON INTERVIEW.**

i. **ESTABLISHED AND ENFORCE GROUND RULES :**

➢ THE WORKSHOP PARTICIPATES SHOULD AGREE ON SOME BASIC OPERATING PRINCIPLES. EXAMPLE INCLUDE STARTING AND ENDING TIME. RETURNING FORM BREAK PROMPTLY EXPECTING EVERYONE TO CONTRIBUTE AND FOCUSING COMMENTS AND CRITICISMS OR ISSUE RATHER THAN INDIVIDUAL.

ii. **FILL ALL OF THE TEAM ROLES :**

➢ A FACILITATOR MUST MAKE SURE THAT THE FOLLOWING TASKS ARE COVERED BY PEOPLE OR THE WORKSHOP:

➢ NOTE: TAKING TIME, KEEPING, GROUND RULE MANAGEMENT AND MAKE SURE EVERYONE HEARD.

iii. **PLAN AN AGENTS**

iv. **TIME BOX DISCUSSION.**

v. **KEEP THE TEAM SMALL BUT INCLUDE THE RIGHT STACK HOLDERS.**

## 10. DOCUMENTS ANALYSIS :

➢ DOCUMENT ANALYSIS ENTAILS EXAMINING ANY EXISTING DOCUMENTATION.

➢ FOR POTENTIAL SOFTWARE REQUIREMENT MOST USEFUL DOCUMENTATION INCLUDE REQUIREMENT SPECIFICATION, BUSINESS PROCESS, LESSON, LEARNED COLLECTION AND MANUAL FOR EXISTING OR SIMILAR APPLICATION.

# QUESTIONS

ANY QUESTIONS OR THOUGHTS ABOUT REQUIREMENT ELICITATION ?

## THANK YOU!