

## Assignment HCI-1

Title: Requirement Gathering

Date of Completion:

Problem Statement:

Identify specialized users and related facilities for a selected product / system and make necessary suggestions for its improved accessibility design.

Learning Objectives and Outcomes:

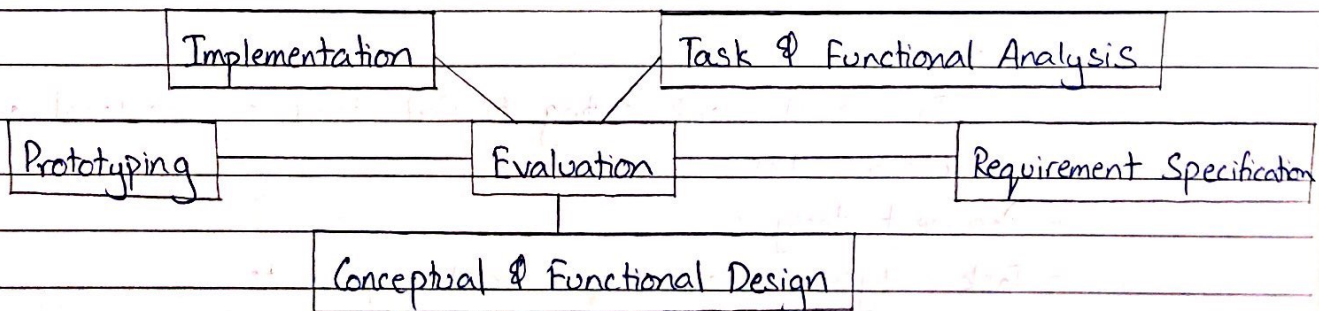
- Understand what are specialized users and the problems they face.
- Capture functional and data specification requirements.
- Conduct a meeting with probable users (not necessarily all but representatives) and understand them.

Requirements:

Notebook and Pen, Questionnaire (not compulsory), PC / Laptop, Reference for SRS.

Theory:

⇒ Star Model of Design and Implementation



## ⇒ Requirements Gathering

What'll the system do?

- Techniques used in requirement gathering.
- Requirements gathering outcome
- Functional Requirements
- Data Requirements
- Usability Requirements

## ⇒ Introduction

- Help the designer

- Understand requirements of client from a software system.
- Analyse situations, work setting, physical environment.

- Clarify the client's needs and identify infeasible requirements, ambiguities, omissions, etc.

## ⇒ Techniques used in Requirements Gathering

- Interviews and Questionnaire

- Discussions with commissioning client

• Interview or questionnaire do:

- \* end users
- \* relevant professional
- \* other interactive designers.

- Observation

- In natural work setting to understand organizational and serial characteristics.

- Document Analysis

- Task analysis techniques for existing products.



- Prototyping can help in requirement gathering.

### ⇒ Functional Requirements

- In HCI, context functional requirements specify both - what the system and user must do.
- Cannot be gathered completely at start of process.
- Often specified with charting techniques. eg. dataflow diagram.
- Constraints must be specified
  - System constraints
  - Development process constraints.

### ⇒ Data Requirements

- Specify meaning and structure of data.
- Data analysis established
  - What data is required?
  - How it's structured?
  - How it's logically stored?
- Use of entity relationship diagrams and data dictionary.
- Gathered using interviews, observations, document analysis, etc.

### ⇒ Usability Requirements

- To be tested, usability is expressed in terms of:
  - learnability: Time and effort to reach a specified level of user performance.
  - throughput: For tasks - speed of task execution and errors made (ease of use)
  - flexibility: Multiplicity of ways user and system exchange information.
  - attitude: Positive attitude created in users by the system.

### Conclusion:

With this assignment SRS for mouse stimulator is prepared.