



SEKOLAH TINGGI INFORMATIKA & KOMPUTER INDONESIA

**STIKI**

# **INFORMATION SYSTEMS ANALYSIS & DESIGN**

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**Fact Finding  
Techniques for  
Requirements  
Discovery**



# References

Whitten, J.L., Bentley, L.D. (2011), Chapter 6, *Systems Analysis and Design Methods* (p. 6-41, 7<sup>th</sup> ed.), McGraw Hill Irwin.



# Discussion 1

What's the difference between  
**functional** and **non-functional**  
requirements?



# Requirements

- Functional

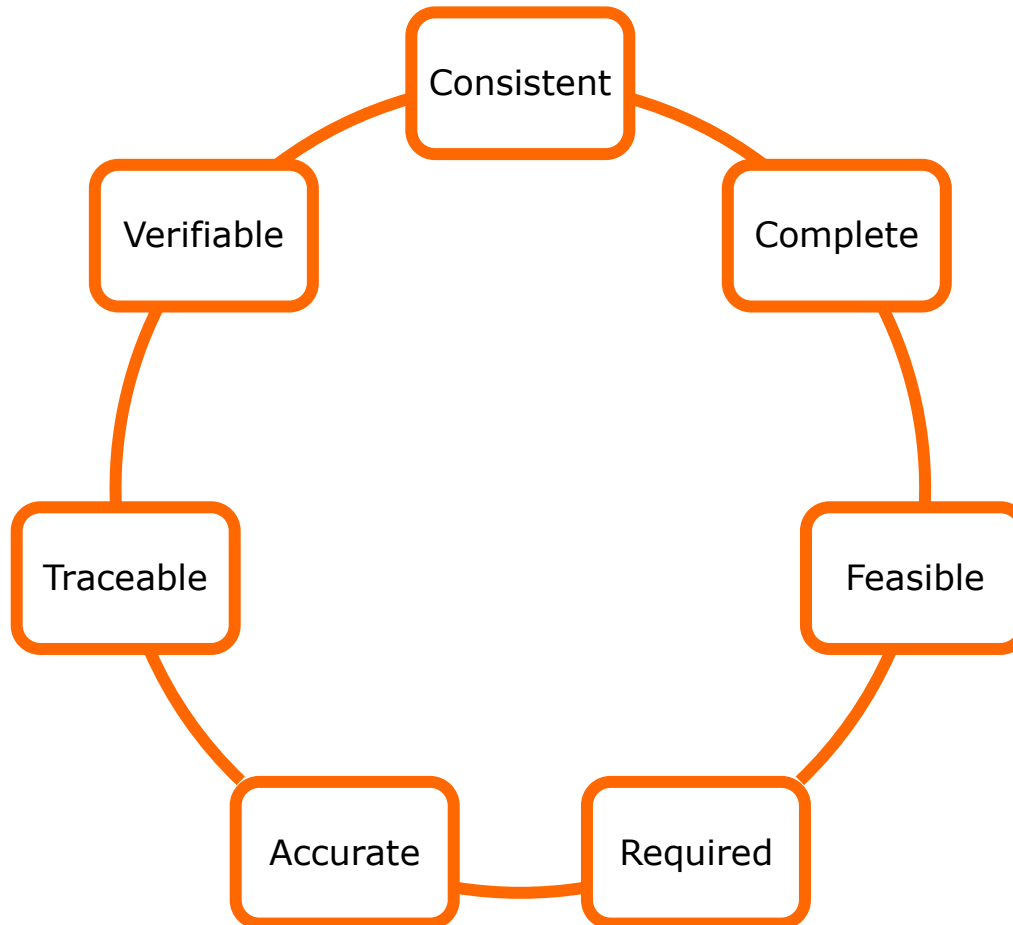
Any **feature/function** that the system must do

- Non-Functional

Any **property/quality** that the system must have

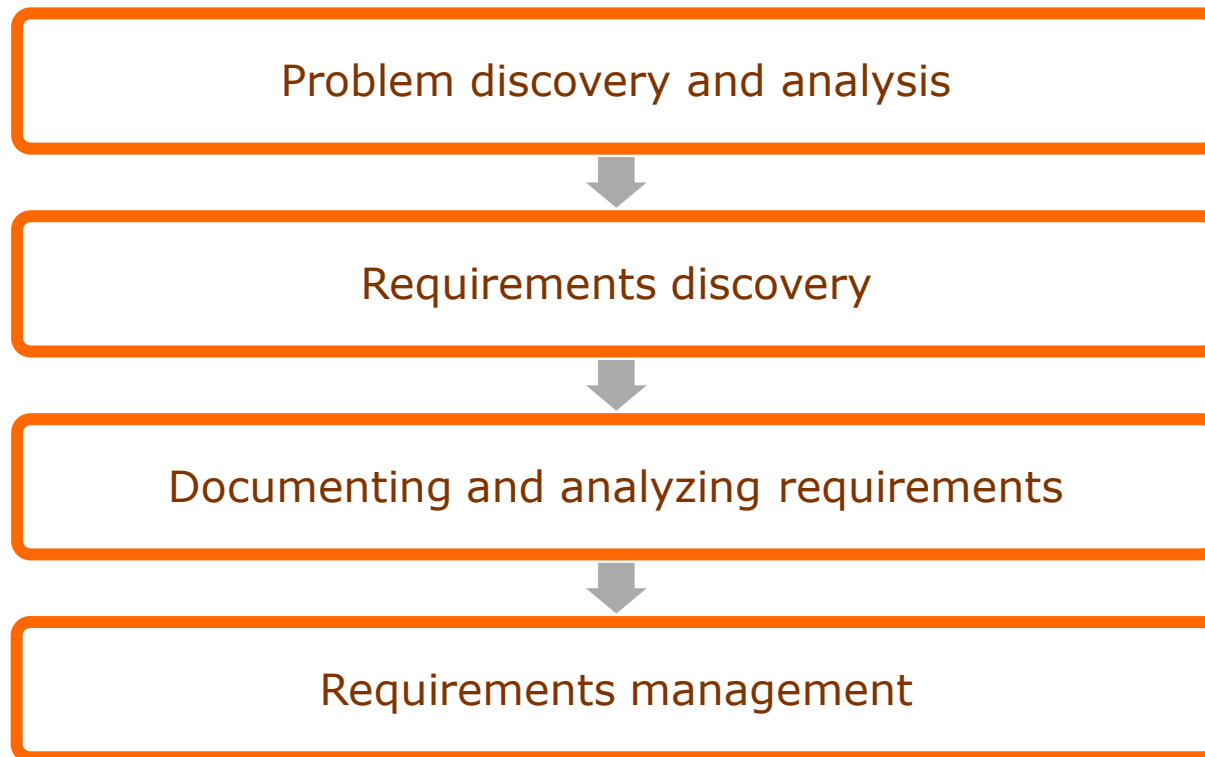


# Requirements Criteria



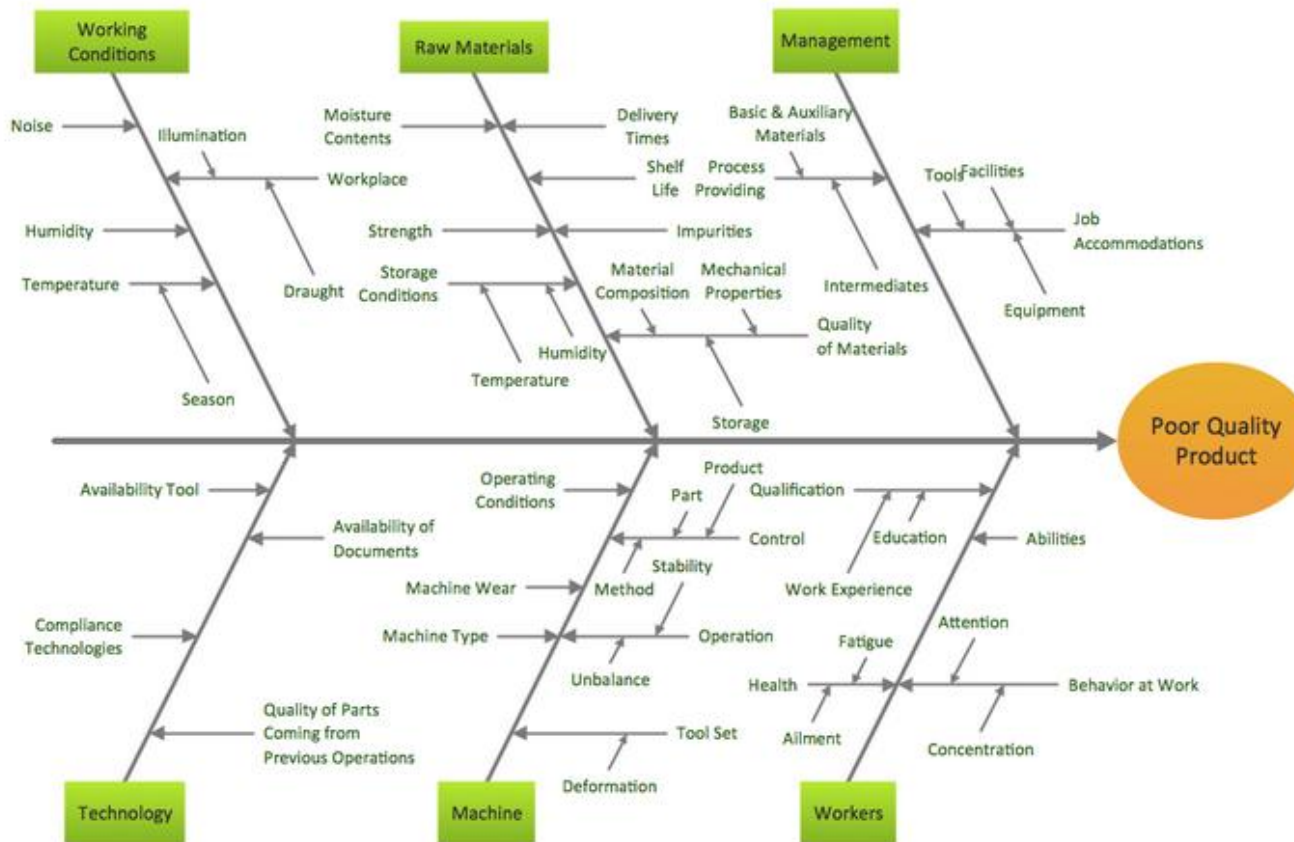


# Process of Discovery





# Fish Bone Diagram



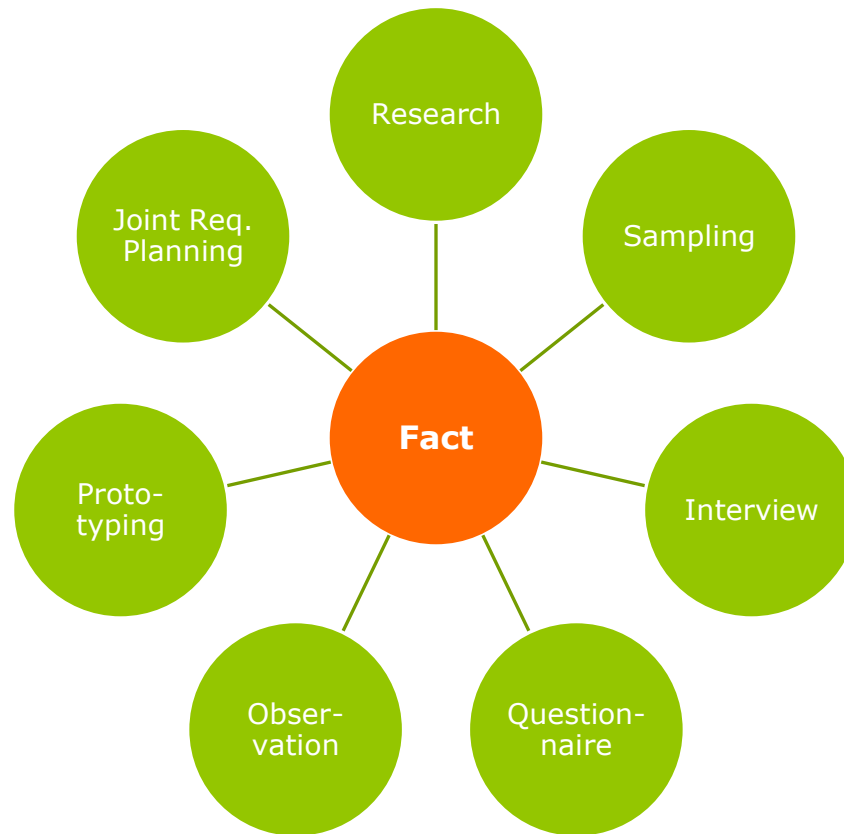


# **Fact Finding Techniques**





# Techniques





# Document Sampling

- **Business**

- Mission statement & strategic plan
- Objectives for sub-units
- Policy manuals
- SOPs or job outlines
- Completed transaction forms
- Report samples

- **Technical**

- Development flow charts or diagrams
- Project repositories
- Project documentation
- User manuals



## Discussion 2

What's the  
advantages and disadvantages of  
**site visits** and **observations**?

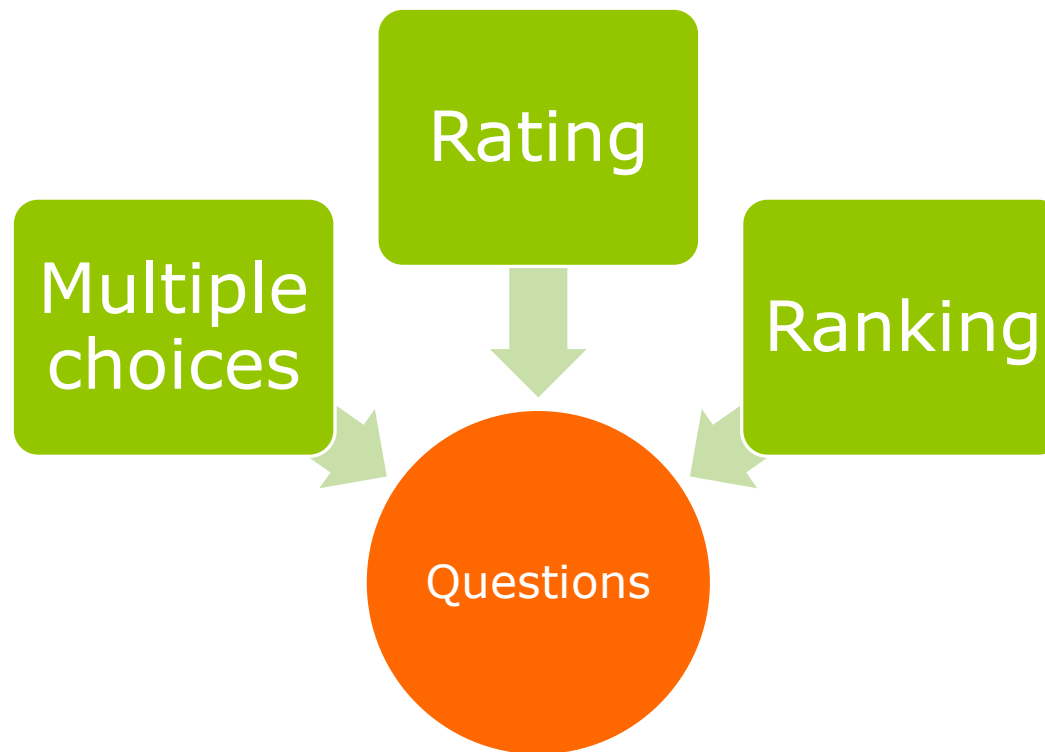


# Discussion 3

What's the  
advantages and disadvantages of  
Using questionnaires?

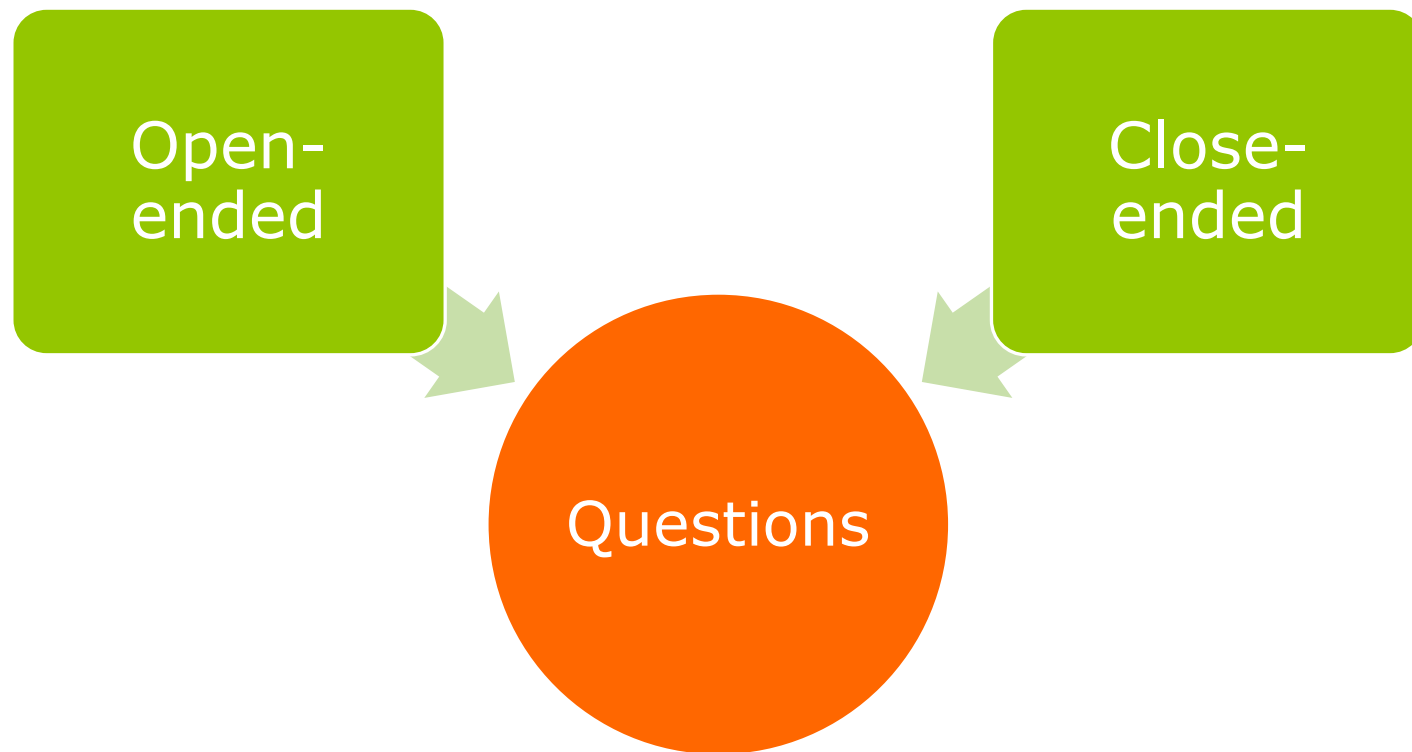


# Questionnaires





# Interviews





# Interviews

| Time Allocated | Interviewer Question or Objective   | Interviewee Response |
|----------------|---|----------------------|
| 1 to 2 min.    | <b>Objective</b><br>Open the interview: <ul style="list-style-type: none"> <li>• Introduce ourselves.</li> <li>• Thank Mr. Bentley for his valuable time.</li> <li>• State the purpose of the interview — to obtain an understanding of the existing credit-checking policies.</li> </ul>   |                      |
| 5 min.         | <b>Question 1</b><br>What conditions determine whether a customer's order is approved for credit?<br><b>Follow-up</b>   |                      |
| 5 min.         | <b>Question 2</b><br>What are the possible decisions or actions that might be taken once these conditions have been evaluated?<br><b>Follow-up</b>  |                      |
| 3 min.         | <b>Question 3</b><br>How are customers notified when credit is not approved for their order?<br><b>Follow-up</b>  |                      |
| 1 min.         | <b>Question 4</b><br>After a new order is approved for credit and placed in the file containing orders that can be filled, a customer might request that a modification be made to the order. Would the order have to go through credit approval again if the new total order cost exceeds the original cost?<br><b>Follow-up</b> |                      |
| 1 min.         | <b>Question 5</b><br>Who are the individuals who perform the credit checks?<br><b>Follow-up</b>   |                      |
| 1 to 3 min.    | <b>Question 6</b><br>May I have permission to talk to those individuals to learn specifically how they carry out the credit-checking process?<br><b>Follow-up</b><br>If so: When would be an appropriate time to meet with each of them?  |                      |
| 1 min.         | <b>Objective</b><br>Conclude the interview: <ul style="list-style-type: none"> <li>• Thank Mr. Bentley for his cooperation and assure him that he will be receiving a copy of what transpired during the interview.</li> </ul>  |                      |
| 21 minutes     | Time allotted for questions and objectives  |                      |
| 9 minutes      | Time allotted for follow-up questions and redirection   |                      |
| 30 minutes     | Time allotted for interview (1:30 p.m. - 2:00 p.m.)   |                      |



# Interviews Do's and Dont's

## **Do**

- Dress appropriately.
- Be courteous.
- Listen carefully.
- Maintain control of the interview.
- Probe.
- Observe mannerisms and nonverbal communication.
- Be patient.
- Keep the interviewee at ease.
- Maintain self-control.
- Finish on time.

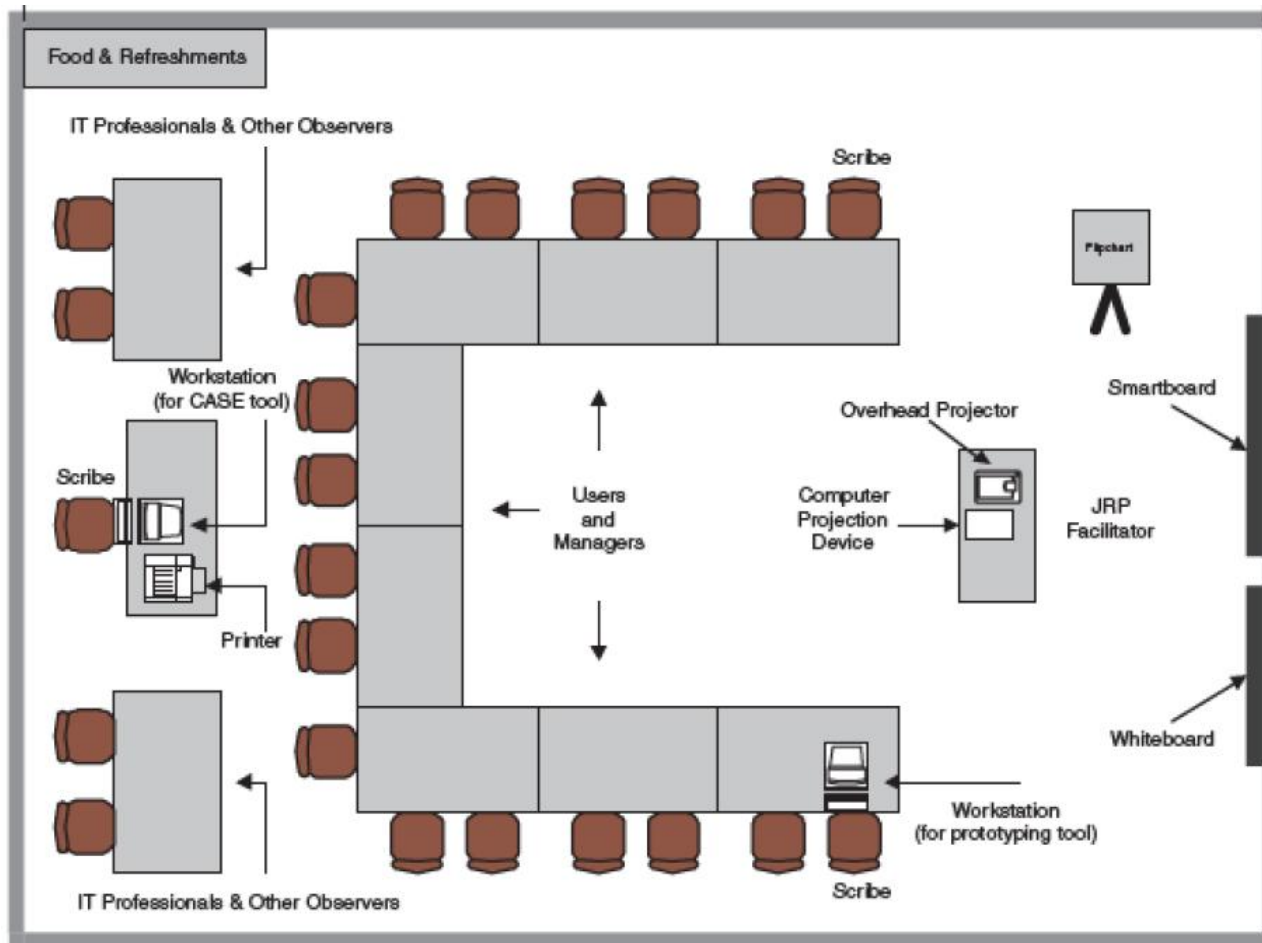
## **Avoid**

- Assuming an answer is finished or leading nowhere.
- Revealing verbal and nonverbal clues.
- Using jargon.
- Revealing your personal biases.
- Talking instead of listening.
- Assuming anything about the topic or the interviewee.
- Tape recording—a sign of poor listening skills.





# JRP (Joint Req. Planning)





# Documenting Requirements

## REQUIREMENTS DEFINITION DOCUMENT

1. Introduction
    - 1.1. Purpose
    - 1.2. Background
    - 1.3. Scope
    - 1.4. Definitions, Acronyms, and Abbreviations
    - 1.5. References
  2. General Project Description
    - 2.1. Functional Requirements
  3. Requirements and Constraints
    - 3.1. Functional Requirements
    - 3.2. Nonfunctional Requirements
  4. Conclusion
    - 4.1. Outstanding Issues
- Appendix (optional)



# Thank you!

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