

教学模块 2：软件需求工程

教学单元：需求工程

例题

1. 需求工程应该有哪些任务？（What are the tasks?）

A: 自由讨论，总结出 7 条：Inception, Elicitation, Elaboration, Negotiation, Specification, Validation, Requirements management

2. As the requirements change over time, how to elicit requirements effectively?

A: The requirement may change over time. To overcome the problem, a requirements engineer must approach the requirements gathering activity in an organized manner. In this way, he can elicit the clear requirements effectively.

3. In some cases, users or customers couldn't express their requirements clearly. How can you manage to acquire the obvious requirements under these circumstances?

A: During this period, we should continually keep touch with the users / customers and talk with them. In this way we can well-define the boundary of the system and avoid the ill-defined, omit the unnecessary technical detail the users / customers specify that may confuse rather than clarify the overall system objectives. The users / customers couldn't express their requirements clearly, one reason maybe they have a poor understanding of the capabilities and limitations of the computing environment and don't have a full understanding the problem domain, or have trouble communication needs to the system engineer and omit information that is believed to be "obvious". They specify requirements that conflict with the needs of other users / customers or specify requirements that are ambiguous or difficult to be testable.

So we have the duty to let the users / customers to understand the capabilities and limitations of the computing environment and have a full understanding the problem domain. By keeping good communication with them, they can finally express their requirements clearly.

4. （在 7.4 Eliciting Requirements 讲到组织 Collaborative Requirements Gathering 时）你打算如

何组织这个会议? (How to organize the meeting?)

A: 书上的 5 条注意事项写出 3 条即可。

- Meetings are conducted and attended by both software engineers and customers
- Rules for preparation and participation are established
- An agenda is suggested
- A facilitator (can be a customer, a developer, or an outsider) controls the meeting
- A definition mechanism (can be work sheets, flip charts, or wall stickers or an electronic bulletin board, chat room or virtual forum) is used