

Chapter 02: Investigating System Requirements

1. Systems analysis involves the creation of logical models.

- a. True
- b. False

ANSWER: True

POINTS: 1

REFERENCES: p43
p58

2. The reason an analyst uses many different models is that each relates to a different aspect of the system.

- a. True
- b. False

ANSWER: True

POINTS: 1

REFERENCES: p43
p59

3. Sometimes a narrative description is the best form to use for recording information.

- a. True
- b. False

ANSWER: True

POINTS: 1

REFERENCES: p 59

4. A key reason that modeling is important in system development is the complexity of describing information systems.

- a. True
- b. False

ANSWER: True

POINTS: 1

REFERENCES: p58

5. Before gathering detailed information, an analyst identifies every type of stakeholder.

- a. True
- b. False

ANSWER: True

POINTS: 1

REFERENCES: p47

6. In the RMO CSMS project, customers are not considered stakeholders because it is not feasible to interview them or use them in the project activities.

- a. True
- b. False

ANSWER: False

POINTS: 1

REFERENCES: p48

7. Core Process 3 involves defining in great detail what the information system needs to accomplish in order to provide

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the organization with the desired benefits.

- a. True
- b. False

ANSWER: True

POINTS: 1

REFERENCES: p42
p43

8. Beginning analysts often underestimate how much there is to learn about the work the users perform.

- a. True
- b. False

ANSWER: True

POINTS: 1

REFERENCES: p43

9. A fact finding user interview can usually be completed in one comprehensive session.

- a. True
- b. False

ANSWER: False

POINTS: 1

REFERENCES: p50
p52

10. If the analysts understand the major business processes, it is not usually necessary to create a comprehensive list of all business processes.

- a. True
- b. False

ANSWER: False

POINTS: 1

REFERENCES: p50

11. The first and most important step in preparing for an interview is to determine who should be involved.

- a. True
- b. False

ANSWER: False

POINTS: 1

REFERENCES: p51

12. Asking about error conditions usually is done in later interviews after the analyst understands and documents the basic processing requirements.

- a. True
- b. False

ANSWER: False

POINTS: 1

REFERENCES: p52

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13. A good way to remember the details of an interview is to use a tape recorder.

- a. True
- b. False

ANSWER: False

POINTS: 1

REFERENCES: p53

14. Reviewing existing documentation is a good idea for analysts because it is a dependable source of accurate policies and procedures.

- a. True
- b. False

ANSWER: False

POINTS: 1

REFERENCES: p56

15. When observing business processes, it is not necessary to observe all the processes at the same level of detail.

- a. True
- b. False

ANSWER: True

POINTS: 1

REFERENCES: p57

16. It is a good idea to observe user processes so that the analyst will know exactly how to build the functions into the new system.

- a. True
- b. False

ANSWER: False

POINTS: 1

REFERENCES: p57

17. The term “I’ll know it when I see it” applies to one valid way to get requirements definition.

- a. True
- b. False

ANSWER: True

POINTS: 1

REFERENCES: p58

18. A decision point within an activity diagram may be shown with an activity symbol.

- a. True
- b. False

ANSWER: True

POINTS: 1

REFERENCES: p60

19. A synchronization bar in an activity diagram allows multiple agents or actors to participate in a workflow in separate rows.

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- a. True
- b. False

ANSWER: False

POINTS: 1

REFERENCES: p60-61

20. FURPS and FURPS+ are synonymous.

- a. True
- b. False

ANSWER: False

POINTS: 1

REFERENCES: p46

21. The term technology architecture refers to

- a. the software resources which make up the information systems
- b. the hardware, network, and system software
- c. the combination of information systems and the hardware infrastructure
- d. the configuration of the old technology and new technology within an organization

ANSWER: b

POINTS: 1

REFERENCES: p39

22. Application architecture is used to refer to

- a. the organization and configuration of all software solutions into information systems
- b. the application of the information system to solve business problems
- c. the architectural structure of the subsystems within a software application
- d. the relationship between software applications and the areas of the organization that they support

ANSWER: a

POINTS: 1

REFERENCES: p40

23. Which of the following items is NOT a part of the application architecture?

- a. software
- b. programming languages and development tools
- c. user-interface technology
- d. virtual private networks

ANSWER: d

POINTS: 1

REFERENCES: p40

24. Which of the following describes what the system is required to do?

- a. Functional requirements
- b. General requirements
- c. User requirements
- d. Nonfunctional requirements

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ANSWER: a

POINTS: 1

REFERENCES: p45

25. _____ requirements are based on the procedures and rules that the organization uses to run its business.

- a. Physical
- b. Functional
- c. Logical
- d. System

ANSWER: b

POINTS: 1

REFERENCES: p45

26. _____ requirements are characteristics of the system other than the business procedures it must support.

- a. System
- b. Physical
- c. Nonfunctional
- d. Implementation

ANSWER: c

POINTS: 1

REFERENCES: p45

27. The S in the FURPS acronym stands for _____.

- a. Screen and reporting requirements
- b. Software requirements
- c. System requirements
- d. Security requirements

ANSWER: d

POINTS: 1

REFERENCES: p45-46

28. The P in the FURPS acronym stands for _____.

- a. Physical requirements
- b. Performance requirements
- c. People requirements
- d. Processing requirements

ANSWER: b

POINTS: 1

REFERENCES: p45-46

29. _____ requirements are most often documented in graphical and textual models.

- a. Security
- b. Nonfunctional
- c. Technical
- d. Functional

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ANSWER: d

POINTS: 1

REFERENCES: p59

30. Diagrams and schematic representations of some aspect of a system are examples of a _____ model.

- a. logical
- b. graphical
- c. mathematical
- d. textual

ANSWER: b

POINTS: 1

REFERENCES: p59

31. A representation of some aspect of the system being built is a _____.

- a. requirement
- b. technique
- c. model
- d. user interface

ANSWER: c

POINTS: 1

REFERENCES: p58

32. A series of formulas that describe technical aspects of a system is a(n) model.

- a. textual
- b. descriptive
- c. graphical
- d. mathematical

ANSWER: d

POINTS: 1

REFERENCES: p59

33. What does the Acronym UML stand for?

- a. User Modification Language
- b. Unified Modeling Language
- c. User Mode Listings
- d. Unix Modeling Language

ANSWER: b

POINTS: 1

REFERENCES: p59

34. The term _____ refers to all the people who have an interest in the successful implementation of the system.

- a. users
- b. clients
- c. managers
- d. stakeholders

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ANSWER: d

POINTS: 1

REFERENCES: p47

35. Persons who regularly interact with the system as part of their jobs are called _____.

- a. user stakeholders
- b. client stakeholders
- c. operational stakeholders
- d. executive stakeholders

ANSWER: c

POINTS: 1

REFERENCES: p47

36. What type of stakeholders are those that do not use the system on day to day tasks, but use information, such as reports, from the system.

- a. Business stakeholders
- b. Client stakeholders
- c. External stakeholders
- d. Executive stakeholders

ANSWER: d

POINTS: 1

REFERENCES: p48

37. What do we call the person or group who provides funding for the development of the new system?

- a. Oversight committee
- b. Client
- c. Board of directors
- d. Department head

ANSWER: b

POINTS: 1

REFERENCES: p48

38. The group that provides direction for the configuration of the new system in the existing computing environment are called _____.

- a. Technical stakeholders
- b. Support staff
- c. System programmers
- d. Operational stakeholders

ANSWER: a

POINTS: 1

REFERENCES: p48

39. Clients play what role in the development of the new system?

- a. Develop the project plan
- b. Fund the project

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- c. Define business processes
- d. Lead the project team

ANSWER: b

POINTS: 1

REFERENCES: p48

40. Questionnaires can be useful in information gathering when users _____.
a. are widely distributed geographically
b. need prompting to respond to questions
c. are not well-informed
d. do not have time for interviews

ANSWER: a

POINTS: 1

REFERENCES: p54

41. Questions that have a simple, definitive answer are called _____ questions.
a. true/false
b. close-ended
c. open-ended
d. multiple choice

ANSWER: b

POINTS: 1

REFERENCES: p51

42. Which of the following is normally the most time-consuming and resource-expensive operation?
a. Building prototypes
b. Observing business processes
c. Researching vendor solutions
d. Interview stakeholders

ANSWER: d

POINTS: 1

REFERENCES: p50

43. Questionnaires can be used to ask questions that _____.
a. determine user opinions
b. determine the stakeholders
c. define system functions
d. detail user procedures

ANSWER: a

POINTS: 1

REFERENCES: p54

44. During a fact-finding interview, an important guideline is _____.
a. to include as many users as possible
b. not to waste project time by including too many analysts

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- c. to probe to get sufficient details
- d. to include the client in important decisions

ANSWER: c

POINTS: 1

REFERENCES: p52

45. The strength of closed-ended questions is that they ____.

- a. invite discussion and elaboration
- b. limit answers to a set of choices
- c. speed up the interview process
- d. are easier for the users to answer

ANSWER: b

POINTS: 1

REFERENCES: p51

46. Which of the following statements is correct about questionnaires?

- a. Questionnaires are well suited to help you learn about processes, workflows, or techniques.
- b. Stakeholders always return questionnaires that contain many open-ended questions.
- c. Questionnaires have a limited and specific use in information gathering.
- d. Questionnaires are the most frequently used method to gather user information.

ANSWER: c

POINTS: 1

REFERENCES: p54-55

47. The most important step in preparing for an interview is to _____.

- a. determine the correct users
- b. build a list of questions
- c. establish an objective
- d. determine the project team members

ANSWER: c

POINTS: 1

REFERENCES: p51

48. Asking many detailed, probing questions during an initial interview usually _____.

- a. makes the users uncomfortable
- b. is necessary to understand the business process
- c. can wait until follow-up interviews
- d. indicates that the analyst does not understand the business

ANSWER: b

POINTS: 1

REFERENCES: p52

49. ____ is an important part of each interview.

- a. Follow-up
- b. Review of the requirements models

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- c. An agenda
- d. Finalize processing decisions

ANSWER: a

POINTS: 1

REFERENCES: p54

50. _____ is an important part of the follow-up after an interview.
- a. Establishing documentation guidelines
 - b. Building models
 - c. Making copies of everyone's notes
 - d. Setting the time for the next meeting

ANSWER: b

POINTS: 1

REFERENCES: p54

51. Every successful interview requires ____.
- a. open-ended questions
 - b. preparation
 - c. an activity diagram
 - d. finding the exception conditions

ANSWER: b

POINTS: 1

REFERENCES: p51

52. As part of the interview process, any unresolved issues should be _____.
- a. noted in the analyst's meeting notes
 - b. given a tentative resolution
 - c. brought to the attention of the appropriate manager
 - d. put on an open-items list

ANSWER: d

POINTS: 1

REFERENCES: p54

53. One of the dangers in researching vendor solutions is that users and analysts _____.
- a. may discover and desire too many unimportant "bells and whistles"
 - b. may not understand the vendor solution
 - c. may discover different methods to perform business processes
 - d. may want to buy one of these solutions prematurely

ANSWER: d

POINTS: 1

REFERENCES: p57

54. The term "I'll know it when I see it" refers to what method of requirements definition.
- a. Questionnaires
 - b. User interviews

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- c. Observing business procedures
- d. Collecting active user comments

ANSWER: d

POINTS: 1

REFERENCES: p58

55. One way to show multiple, independent alternative paths within an activity diagram is with a _____.
- a. synchronization bar
 - b. swimlane
 - c. decision diamond
 - d. activity oval

ANSWER: c

POINTS: 1

REFERENCES: p60

56. Workflows can be documented using _____.
- a. swimlanes
 - b. use case diagrams
 - c. class diagrams
 - d. activity diagrams

ANSWER: d

POINTS: 1

REFERENCES: p560

57. Looping in an activity diagram is best represented using what?
- a. synchronization bars
 - b. decision points
 - c. activity ovals
 - d. lines with arrowheads

ANSWER: a

POINTS: 1

REFERENCES: p560

58. One important reason for prioritizing requirements is to _____.
- a. assign work within an iteration
 - b. speed up the project
 - c. avoid confusing the users
 - d. avoid scope creep

ANSWER: d

POINTS: 1

REFERENCES: p44

59. The “+” in FURPS+ includes which of the following types of requirements? (choose two)
- a. Supportability requirements
 - b. Performance constraints

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- c. Reliability constraints
- d. Nonfunctional requirements
- e. Design constraints
- f. User interface requirements

ANSWER: a, e

POINTS: 2

REFERENCES: p46

60. Which are the major business themes that guide analysts in fact finding activities? (chose 3)

- a. What are the business processes?
- b. Who performs the business processes?
- c. How are the business processes performed?
- d. What are the objectives of a business process? (What should it accomplish?)
- e. What is produced by the business process?
- f. What information is needed?

ANSWER: a, c, f

POINTS: 2

REFERENCES: p50-51

61. What are the two primary benefits of reviewing the documentation of existing inputs, outputs, and procedures. (choose 2)

- a. Have a repository of existing documentation
- b. Obtain a preliminary understanding
- c. Encourages the users to prepare for interviews
- d. Help build models of existing procedures
- e. Ensure complete documentation of procedures
- f. Serve as visual aids in interview discussions

ANSWER: b, f

POINTS: 2

REFERENCES: p55-56

62. Two benefits of researching vendor solutions include _____ and _____. (Choose two)

- a. encouraging the users to buy a vendor solution immediately
- b. helping analysts discover state of the art solutions
- c. helping users generate new ideas for business functions
- d. speeding up the development project
- e. informing senior management about competitors
- f. reducing the risk of implementing a new system

ANSWER: b, c

POINTS: 1

REFERENCES: p57

63. Which two of the following are activities of Core Process 3? (choose two)

- a. Gather detailed information
- b. Plan the project iterations

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- c. Build an iteration schedule
- d. Define test data
- e. Develop user-interface dialogs
- f. Develop architectural structure

ANSWER: a, e

POINTS: 2

REFERENCES: p42

64. Core Process 3 is called “Discover and understand details.” Another term that is used to describe these activities is _____ activities.

ANSWER: analysis
Analysis
systems analysis
Systems Analysis

POINTS: 2

REFERENCES: p42

65. The U in the FURPS acronym stands for _____.

ANSWER: usability
Usability
usability requirements
Usability requirements

POINTS: 2

REFERENCES: p45

66. The R in the FURPS acronym stands for _____.

ANSWER: reliability requirements
Reliability requirements
reliability
Reliability

POINTS: 2

REFERENCES: p45

67. The P in the FURPS acronym stands for _____.

ANSWER: performance requirements
performance
Performance
Performance requirements

POINTS: 2

REFERENCES: p46

68. _____ requirements describe operational characteristics related to users such as work procedures and online help.

ANSWER: Usability
usability

POINTS: 2

REFERENCES: p45

69. _____ requirements describe the dependability of a system such as service outages and incorrect processing.

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ANSWER: Reliability
reliability

POINTS: 2

REFERENCES: p45

70. _____ requirements describe operational characteristics related to measures of workload such as throughput and response time.

ANSWER: Performance
performance

POINTS: 2

REFERENCES: p46

71. _____ requirements describe how access to the software application will be controlled and data will be protected.

ANSWER: Security
security

POINTS: 2

REFERENCES: p46

72. _____ requirements describe constraints such as programming languages, tools, and communication protocols for distributed portions of the system.

ANSWER: Implementation
implementation

POINTS: 2

REFERENCES: p46

73. _____ requirements describe interactions between systems, e.g. the method of communication between one system and another system.

ANSWER: Interface
interface

POINTS: 2

REFERENCES: p46

74. _____ requirements describe how a system is configured, monitored, maintained, and updated.

ANSWER: Supportability
supportability

POINTS: 2

REFERENCES: p46

75. Use case diagrams, class diagrams, sequence diagrams are all examples of standard modeling method?

ANSWER: UML
Unified Modeling Language
Unified modeling language

POINTS: 2

REFERENCES: p59

76. Persons who have an interest in the successful implementation of the new system are called _____.

ANSWER: stakeholders

POINTS: 2

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REFERENCES: p47

77. Persons within an organization who have a significant interest in its operation are _____ stakeholders.

ANSWER: internal

POINTS: 2

REFERENCES: p47

78. Persons outside an organization's control who interact with the system or who have an interest in its operation are called _____ stakeholders.

ANSWER: external

POINTS: 2

REFERENCES: p47

79. Questions that have a simple, definitive answer are called _____ questions.

ANSWER: closed-ended

POINTS: 2

REFERENCES: p51

80. Questions that encourage discussion are called _____ questions.

ANSWER: open-ended

POINTS: 2

REFERENCES: p51

81. The most important and first step in preparing for an interview with a user is to establish the _____ of the interview.

ANSWER: objective

POINTS: 2

REFERENCES: p51

82. A _____ is the sequence of processing steps that completely handles one business transaction.

ANSWER: workflow

POINTS: 2

REFERENCES: p57

83. An _____ describes the sequential flow of user activities.

ANSWER: activity diagram
workflow diagram

POINTS: 2

REFERENCES: p60

84. One way to show concurrent paths within an activity diagram is with a _____.

ANSWER: synchronization bar

POINTS: 2

REFERENCES: p60

85. In order to show all the activities of a single agent or organizational unit together, a activity diagram contains what construct?

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ANSWER: swimlane
swimlane heading
Swimlane
Swimlane heading

POINTS: 2

REFERENCES: p60

86. List the activities of Core Process 3: Discover and Understand Details

ANSWER: 1. Gather detailed information
2. Define requirements
3. Prioritize requirements
4. Develop user-interface dialogs
5. Evaluate requirements with users

POINTS: 5

REFERENCES: p42

87. List the elements that are referred to by the FURPS+ acronym.

ANSWER: F = Functional requirements
U = Usability requirements
R = Reliability requirements
P = Performance requirements
S = Security requirements
+ = Other constraints including Design constraints, Implementation requirements, interface requirements, physical requirements, supportability requirements.

POINTS: 5

REFERENCES: p45-46

88. List the six techniques used to gather detailed requirements information.

ANSWER: 1. Interview users
2. Distribute questionnaires
3. Review documents
4. Observe users
5. Research vendor solutions
6. Collect active user comments

POINTS: 5

REFERENCES: p50

89. List five steps in the activity to interview users and other stakeholders.

ANSWER: 1. Prepare detailed questions
2. Meet with users
3. Discuss answers and procedures
4. Document answers
5. Follow-up on open issues

POINTS: 5

REFERENCES: p50

90. List the three major question themes that guide analysts in fact finding activities.

ANSWER: 1. What are the business processes?
2. How are the business processes performed?
3. What information is required?

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POINTS: 5

REFERENCES: p50