***Experiencing MIS, 9e* (Kroenke)**
Chapter Extension 17 Agile Development

1) According to the systems development life cycle (SDLC), the linear progress from requirements to design to implementation is called the _____ method.
A) life cycle
B) waterfall
C) water cycle
D) scrum
Answer: B
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-1: Why Is the SDLC Losing Credibility?
Classification: Concept

2) Why is the systems development life cycle (SDLC) called the waterfall method?
A) It does not return to a development phase that has been completed.
B) It uses feedback from team members to schedule tasks.
C) It delivers a working version of the product at frequent intervals.
D) It can be used only for projects on information systems.
Answer: A
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-1: Why Is the SDLC Losing Credibility?
Classification: Concept

3) The systems development life cycle (SDLC) gained popularity because it was stipulated that it would be used for all software development contracts by the U.S. Department of _____.
A) Defense
B) Education
C) Agriculture
D) Commerce
Answer: A
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-1: Why Is the SDLC Losing Credibility?
Classification: Concept

4) Which of the following statements indicates why the SDLC is falling out of favor?
A) The system design is revised frequently.
B) It allows the team members to establish the project schedule.
C) It is risky, as no value is generated until the end of the project.
D) Systems requirements do not change during a project.
Answer: C
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-1: Why Is the SDLC Losing Credibility?
Classification: Concept

5) The nature of the systems development life cycle (SDLC) denies the fact that system requirements are fuzzy and always changing.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-1: Why Is the SDLC Losing Credibility?
Classification: Concept

6) According to the systems development life cycle (SDLC), the progress from requirements to implementation is nonlinear.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-1: Why Is the SDLC Losing Credibility?
Classification: Concept

7) The systems development life cycle (SDLC) gained popularity when the U.S. Department of Commerce stipulated that it would be used for all software development contracts.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-1: Why Is the SDLC Losing Credibility?
Classification: Concept

8) In software development, where requirements change periodically, the waterfall model works well.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-1: Why Is the SDLC Losing Credibility?
Classification: Concept

9) The waterfall model used by the systems development life cycle (SDLC) is suitable for building physical things, such as a runway.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-1: Why Is the SDLC Losing Credibility?
Classification: Concept

10) The systems development life cycle (SDLC) is falling out of favor because it is very risky to wait until the end of a project to determine the success or failure of a large project.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-1: Why Is the SDLC Losing Credibility?
Classification: Concept

11) Why is the systems development life cycle (SDLC) losing credibility?
Answer: The systems development life cycle (SDLC) process is falling out of favor in the systems development community, primarily for two reasons. First, the nature of the SDLC denies what every experienced developer knows is true: systems requirements are fuzzy and always changing. They change because they need to be corrected, or more is known, or users, once they see a part of the application, change their minds. Other reasons are that business needs change, or technology offers other possibilities. According to the SDLC, however, progress goes in a linear sequence from requirements to design to implementation. Sometimes this is called the waterfall method because the assumption is that once a phase is finished, it is not revisited. Requirements are done. Then design is taken up. Design is completed, and is followed by implementation. However, experience has shown that it just doesn't work that way.
The second reason that the SDLC is falling out of favor is that it is very risky. The people for whom the system is being constructed cannot see what they have until the end. At that point, if something is wrong, all the money and time has already been spent. Furthermore, what if the project runs out of money or time before it is completed? The result is a form of management blackmail in which the developers ask for more money or time. If management declines, which it might because the time or money at that point is sunk, they are left not only with the loss but also with the unmet need that caused them to start the process in the first place.
AACSB: Information Technology
Difficulty: 3: Challenging
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-1: Why Is the SDLC Losing Credibility?
Classification: Concept

12) The systems development life cycle (SDLC) generates values _____.
A) in the beginning
B) after the design phase
C) at frequent intervals
D) at the very end
Answer: D
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-2: What Are the Principles of Agile Development Methodologies?
Classification: Concept

13) Designing only the portions of the system that are needed to complete the current work being done is known as _____ design.
A) waterfall
B) scrum
C) just-in-time
D) frequent
Answer: C
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-2: What Are the Principles of Agile Development Methodologies?
Classification: Concept

14) Which of the following is an advantage of using agile techniques over the SDLC?
A) In projects using agile techniques, customers test only the completed version of the product.
B) Changes in systems requirements are incorporated toward the end of the project.
C) System design is completed at the beginning of the project.
D) A working version of the product is delivered frequently during the project.
Answer: D
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-2: What Are the Principles of Agile Development Methodologies?
Classification: Concept

15) "Test as you go" is a principle of the SDLC.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-2: What Are the Principles of Agile Development Methodologies?
Classification: Concept

16) Extreme programming is one of the alternatives to the systems development life cycle (SDLC).
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-2: What Are the Principles of Agile Development Methodologies?
Classification: Concept

17) Agile development methodologies welcome changes in requirements.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-2: What Are the Principles of Agile Development Methodologies?
Classification: Concept

18) The systems development life cycle (SDLC) processes are designed to frequently deliver a working version of a product.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-2: What Are the Principles of Agile Development Methodologies?
Classification: Concept

19) Unlike agile techniques, the systems development life cycle (SDLC) delivers benefits early and often.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-2: What Are the Principles of Agile Development Methodologies?
Classification: Concept

20) Agile development methodologies advocate the design of the complete system at the beginning.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-2: What Are the Principles of Agile Development Methodologies?
Classification: Concept

21) Agile development methodologies discourage interaction between developers and customers.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-2: What Are the Principles of Agile Development Methodologies?
Classification: Concept

22) Just-in-time design may lead to substantial revision of the work product produced previously in the project.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-2: What Are the Principles of Agile Development Methodologies?
Classification: Concept

23) According to agile development methodologies, testing never involves business customers.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-2: What Are the Principles of Agile Development Methodologies?
Classification: Concept

24) Agile development techniques assume that the development teams are unaware of their weaknesses.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-2: What Are the Principles of Agile Development Methodologies?
Classification: Concept

25) Agile development methodologies are applicable only to team projects on information systems.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-2: What Are the Principles of Agile Development Methodologies?
Classification: Concept

26) What are the principles of agile development methodologies?
Answer: The following are the principles of agile development:
• Expect, even welcome, changes in requirements
• Frequently deliver working version of the product
• Work closely with customer for the duration
• Design as you go
• Test as you go
• Team knows best how it's doing/how to change
• Can be used for applications, information systems, and business process development
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-2: What Are the Principles of Agile Development Methodologies?
Classification: Concept

27) Which of the following development methodologies is associated with the scrum process?
A) agile development
B) systems development life cycle
C) V-Model
D) rapid application development
Answer: A
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-3: What Is the Scrum Process?
Classification: Concept

28) According to scrum essentials, the first step of each work period is to _____.
A) conduct team meets
B) determine tasks to perform
C) select requirements to consider
D) deliver a working version
Answer: C
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-3: What Is the Scrum Process?
Classification: Concept

29) Which of the following is TRUE of paired programming?
A) Two team members get together and write two separate programs.
B) Two members share the same computer and write a program together.
C) A team member writes two programs.
D) A team member and the customer pair up to write a program.
Answer: B
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-3: What Is the Scrum Process?
Classification: Concept

30) Diana and her team are working on developing a software to manage accounting processes for a firm. Her team is following the scrum methodology, and Diana is the only person who has the authority to make changes in the requirements and priority of the project. This makes Diana the _____ of the team.
A) scrum master
B) product owner
C) database designer
D) business analyst
Answer: B
AACSB: Reflective Thinking
Difficulty: 2: Moderate
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-3: What Is the Scrum Process?
Classification: Application

31) One function of a scrum master is to _____.
A) stop the misuse of meeting time
B) change product requirements and their priority
C) test programs on a regular basis
D) develop the database design
Answer: A
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-3: What Is the Scrum Process?
Classification: Concept

32) Scrum essentials encourage minimal documentation.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-3: What Is the Scrum Process?
Classification: Concept

33) In the scrum process, a stand-up is a 15-minute team meeting.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-3: What Is the Scrum Process?
Classification: Concept

34) In paired programming, two computers are used by the same programmer.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-3: What Is the Scrum Process?
Classification: Concept

35) Briefly outline the scrum essentials.
Answer: The following are the scrum essentials:
• Requirements list drives process
• Each work period (1 to 4−8 weeks):
    Select requirements to consider
    Determine tasks to perform–select requirements to deliver
    Team meets daily for 15 min (stand-up)
        - What I did yesterday
        - What I'm going to do today
        - What's blocking me
    Test frequently
    Paired work possible
    Minimal documentation
    Deliver (something) that works
    Evaluate team's work process at end of period (and say thanks)
• Rinse and repeat until:
    Customer says we're done
    Out of time
    Out of money
• Three principal roles:
    Product Owner (business professional)
    Scrum Master
    Team Members (7 ± 2 people)
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-3: What Is the Scrum Process?
Classification: Concept

36) According to the scrum essentials, when is a project said to be done?
Answer: Work continues in a repeating cycle of scrum periods until one of three conditions is met:
• The customer is satisfied with the product created and decides to accept the work product, even if some requirements are left unsatisfied.
• The project runs out of time.
• The project runs out of money.
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-3: What Is the Scrum Process?
Classification: Concept

37) In a scrum, who is a product owner?
Answer: The product owner is the business professional who provides the requirements and is available for clarification and testing. The product owner is the only person on a scrum team who has the authority to add, delete, or change requirements and their priority.
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-3: What Is the Scrum Process?
Classification: Concept

38) In a scrum, who is a scrum master? What are his or her responsibilities?
Answer: A scrum master is an expert in scrum processes who helps to keep the process organized and operating. The scrum master is not the boss; he or she is more like a coach or even a referee. The scrum master steps in when meetings go too long, when team members are misusing meeting time, when the product sponsor isn't doing his or her job, and when other situations are not working. The scrum master is also the guardian of team members' time. If distractions occur, the scrum master steps in to eliminate them. If someone other than the product sponsor attempts to change requirements or priorities, the scrum master negates that attempt.
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-3: What Is the Scrum Process?
Classification: Concept

39) Who are considered scrum team members?
Answer: Team members are the programmers, systems analysts, business analysts, database designers, cloud engineers, PQA testing personnel, and any other staff needed to build the work product. Scrum teams are small; five to nine team members are recommended. If work requires more personnel, then the work is reorganized to be accomplished by multiple scrum teams working in parallel. It's not clear that scrum works well for exceedingly large projects, but then again, it's not clear that any other development process works well for them, either.
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-3: What Is the Scrum Process?
Classification: Concept

40) Which of the following statements is TRUE about the points system?
A) Points are assigned by the clients at the beginning of the project.
B) The most difficult task is assigned a point score of 1.
C) Consecutive integers are used to award point scores to tasks.
D) Points estimate the relative difficulty, rather than the relative duration of tasks.
Answer: D
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-4: How Do Requirements Drive the Scrum Process?
Classification: Concept

41) A team uses its _____ to determine how many requirements it can commit to accomplishing in the next scrum period.
A) velocity
B) capacity
C) momentum
D) vector
Answer: A
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-4: How Do Requirements Drive the Scrum Process?
Classification: Concept

42) Which of the following statements is TRUE about velocity?
A) The customer sets the velocity of each scrum period.
B) When a project begins, the senior team members guess the velocity of the team.
C) After a scrum team commits to requirements in a scrum period, it estimates the velocity it can achieve.
D) A team approaches the scrum master to change the order of the requirements to which it has committed.
Answer: B
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-4: How Do Requirements Drive the Scrum Process?
Classification: Concept

43) Which of the following is a characteristic that makes agile development a valid systems development process?
A) Team iteration and feedback are used for scheduling and tasking.
B) Process scheduling is performed by the scrum master.
C) Through iteration, team members decide when a project is complete.
D) Once a phase of development is completed, it is not revisited.
Answer: A
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-4: How Do Requirements Drive the Scrum Process?
Classification: Concept

44) Scrum is distinguished from other agile development methodologies, in part, by the way that it uses requirements to drive planning and scheduling.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-4: How Do Requirements Drive the Scrum Process?
Classification: Concept

45) The SDLC assumes _____.
A) requirements do not change
B) the government will sponsor all projects
C) people do not adapt
D) it is better than the SCRUM method
Answer: A
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-1: Why Is the SDLC Losing Credibility?
Classification: Concept

46) Software, information systems, and business processes are physical.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-1: Why Is the SDLC Losing Credibility?
Classification: Concept

47) All of the following are agile development methodologies EXCEPT _____.
A) waterfall
B) scrum
C) the unified process
D) extreme programming
Answer: A
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-2: What Are the Principles of Agile Development Methodologies?
Classification: Concept

48) All of the following are principles of agile development EXCEPT _____.
A) welcoming changes
B) testing as you go
C) designing in the beginning
D) deliver working versions of the product
Answer: C
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-2: What Are the Principles of Agile Development Methodologies?
Classification: Concept

49) Teams assess how it's doing at the end of each milestone in agile development.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-2: What Are the Principles of Agile Development Methodologies?
Classification: Concept

50) Which of the following is NOT considered a SCRUM essential?
A) work periods of 9-12 weeks
B) frequent testing
C) minimal documentation
D) tasks selection
Answer: A
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-3: What Is the Scrum Process?
Classification: Concept

51) Scrum teams can become larger when there is a large amount of tasks to be completed.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-3: What Is the Scrum Process?
Classification: Concept

52) The _____ is not the boss but more of a coach or referee.
A) manager
B) scrum master
C) team leader
D) CIO
Answer: B
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-3: What Is the Scrum Process?
Classification: Concept

53) Higher ranked requirements are completed last because they take the most time.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-4: How Do Requirements Drive the Scrum Process?
Classification: Concept

54) Overtime the number of requirements that can be completed during a SCRUM cycle will get better because of _____.
A) velocity
B) capacity
C) momentum
D) vector
Answer: A
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-4: How Do Requirements Drive the Scrum Process?
Classification: Concept

55) What are the characteristics that make the SCRUM method not "hocus-pocus"?
Answer: It is a methodology that incorporates team iteration and feedback for scheduling and tasking. This process allows for something that exceeds what each member can do individually. Also, it provides a framework for process learning. As a team works more scrum periods together, it learns how to assign points more accurately, and it increasingly learns what its true velocity is.
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-4: How Do Requirements Drive the Scrum Process?
Classification: Concept

56) One reason why the Software Development Life Cycle (SDLC) is losing credibility is because the SDLC assumes that requirements don't change.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-1: Why Is the SDLC Losing Credibility?
Classification: Concept

57) Agile development methodologies are generic, meaning they can be applied to the creation of applications, information systems, and business processes.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-2: What Are the Principles of Agile Development Methodologies?
Classification: Concept

58) The Scrum process defines seven key roles.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-3: What Is the Scrum Process?
Classification: Concept

59) When scheduling tasks using the scrum process points are expressed in values from a sequence of integers known as the Fibonacci sequence.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO CE17-4: How Do Requirements Drive the Scrum Process?
Classification: Concept