

## **Chapter 2: Accountants as Business Analysts**





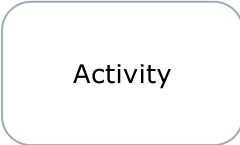
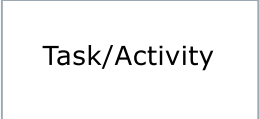



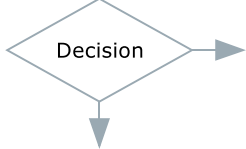
### **Multiple Choice Questions**

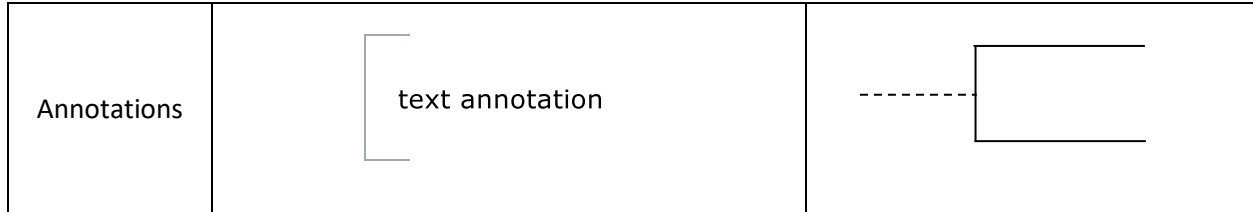
1. e
2. d
3. e
4. e
5. e
6. b
7. d
8. e
9. e
10. c
11. c
12. e
13. d
14. c
15. b
16. a
17. b
18. e
19. d
20. a
21. e
22. e

### **Discussion Questions**

1. The answers will vary according to the student's background, but it is likely that they will feel best prepared to use technology and less prepared to design, manage, and evaluate technology.
2. Managing regulatory compliance would involve collection and maintenance of a wide variety of information. First, organizations would have to collect requirement information. Then, they would have collected process information to identify where process activities must comply with regulations. Finally, they would have ongoing collection of process performance data to ensure continued compliance and reporting.
3. The answer to this question depends on the individual but most students should be forming foundational and intermediate skills by the time they graduate.
4. The answer to this question depends on the individual but most students should be forming basic and applied knowledge by the time they graduate.
5. The IMA Competency Framework was a specific section titled Technology & Analytics so at first glance, students are more likely to say the IMA framework emphasizes technology more. However, technology and analytical skills are implicit in many of the topics.

6. If students search for the word: processes in the IMA Competency Framework document, they will find it on almost every page. This is a good opportunity to discuss the importance of processes and process documentation to accounting and business functions.
7. The CGMA Competency Framework foundational skills require basic understanding of business structure, operations and financial performance. Almost every skill could be facilitated by business models, so this is an opportunity to select a skill and discuss how or why models could aid the development of that skill.
8. Student responses will vary depending on their experience, but most will mention training, SOX compliance, regulatory compliance, identifying and collecting process performance information, aiding audits, and so on.
9. BPMN diagrams serve similar purposes to flowcharts. The following table compares basic symbols and shows the similarities. The BPMN symbols have more capability to handle events and the Gateways are more flexible than the flowchart decision symbol. The extended list of symbols in the chapter shows that many flowchart symbols are closely tied to specific and outdated data processing methods, whereas the BPMN symbols are independent of the technology.

Element	BPMN Symbol	Flowchart Symbol
Events/ Start and End	  	
Activities		
Sequence Flows		
Gateways/ Decisions		



Comparing BPMN to data flow diagrams shows that the models are very different. Data flow diagrams do not have start, end, or intermediate event symbols. They do, however, clearly show the flow of data in a process or processes, where the BPMN diagram more clearly shows the sequence of activities.

10. The stewardship and reporting function relates to regulatory/tax compliance. Accountants would need to collect information on regulatory regimes, tax rates, laws and regulations imposed and the performance of the company to comply with those laws and regulations.

11. BPMN activity diagrams support process documentation, process evaluation, and process improvement. Thus, BPMN diagrams would document the finance and accounting processes to support employee training. An accurate documentation would support an evaluation of process inefficiencies and potential process improvements including applications of technology, as well as a review of internal controls over the process and identification of potential weaknesses.

12. Process modeling is iterative. The analyst will model the process and then confirm his/her model with process participants. The confirmation process would likely raise questions about completeness.

13. The use of pools and lanes help establish responsibility. It would be hard to enforce responsibility where multiple departments are involved. Additionally, the assignment process helps define tasks/activities at an appropriate level of detail that allows the models to be used for training, process change, performance management, etc.

14. Exclusive gateways show distinct choices, such as when you select one option among multiple alternatives. Inclusive gateways allow selection of one or more options, such as ordering both an entrée and an appetizer or just an entrée. Parallel gateways take all possible options, such as when dining at a restaurant that charges one price for the meal that includes an appetizer, main course, beverage, and dessert.

15. When the process experiences a delay such as described, the best way to model that is through the use of an intermediate event, such as an intermediate message (catching) event.

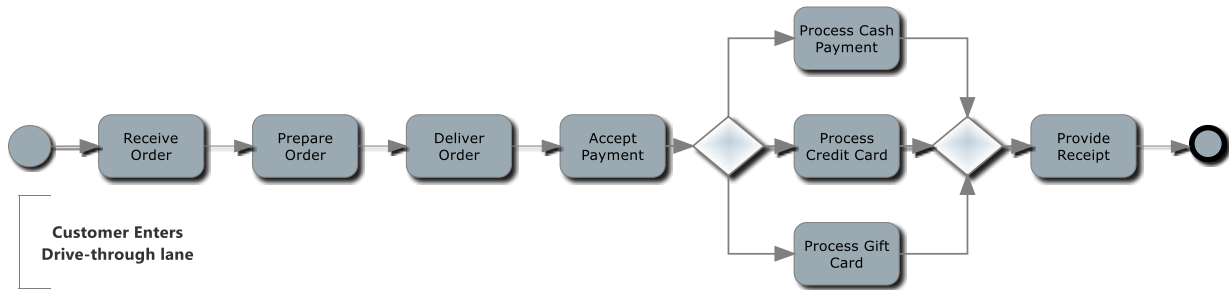
16. Processes that start with a timer event could be time to prepare financial reports, time to pay taxes, time to attend class, etc.

**Problems**

(Note – Problems with “**Connect**” in parentheses below are available for assignment within Connect. The Connect-based solutions for all Problems can be found in the following section beginning on Page 11.)

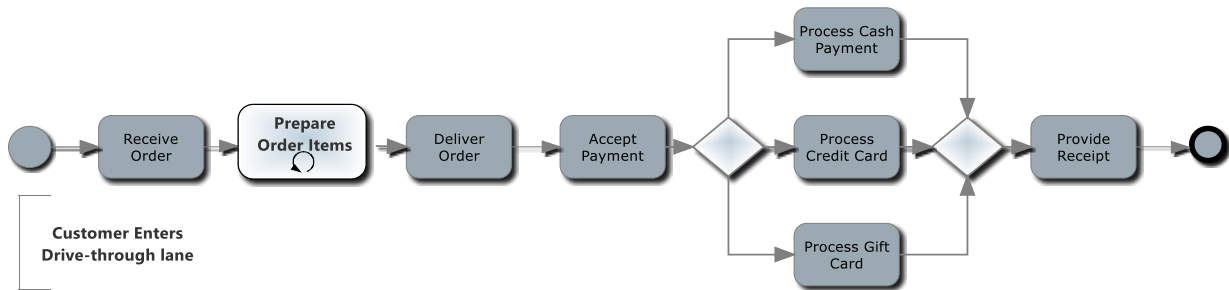
1. **(Connect)** Solutions for Parts a to d are below:

a. Solution should look similar to the following model:

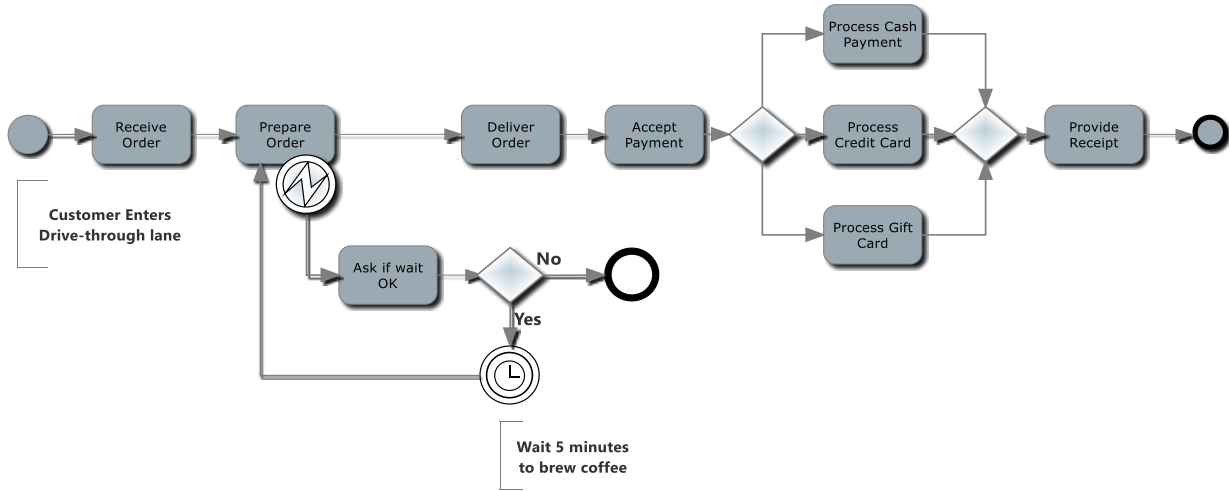


(Note that “review menu” is a customer task and would not be modeled in the Starbucks pool. Of course, a Starbucks’ employee could answer menu questions or advise that certain items are not available at that time.)

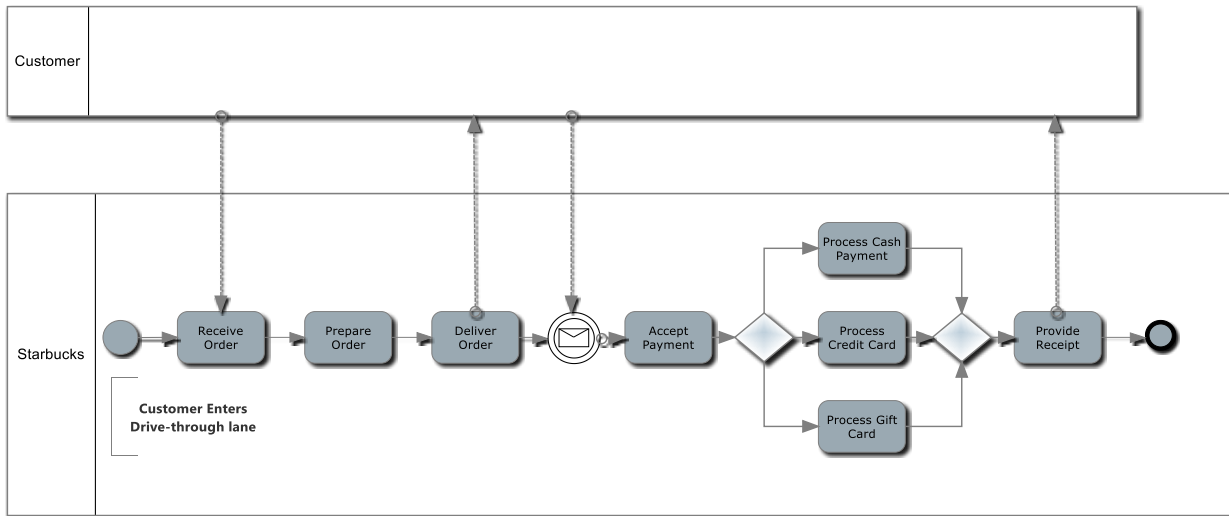
b. Solution should look similar to the following model. The looping task could also involve accepting payments, e.g., the customer pays partly by gift card and remainder by cash.



c. Same solution as problem 1 but adding the possibility that coffee will take 5 minutes to brew.

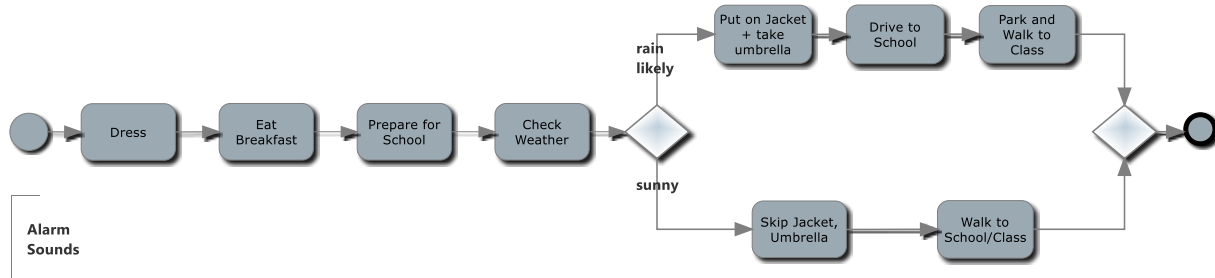


d. Same as problem 1, but including two pools, message flows, and an intermediate message event. This solution only includes one intermediate message event, but there could be a message event receiving and sending (catching and throwing) all message flows.

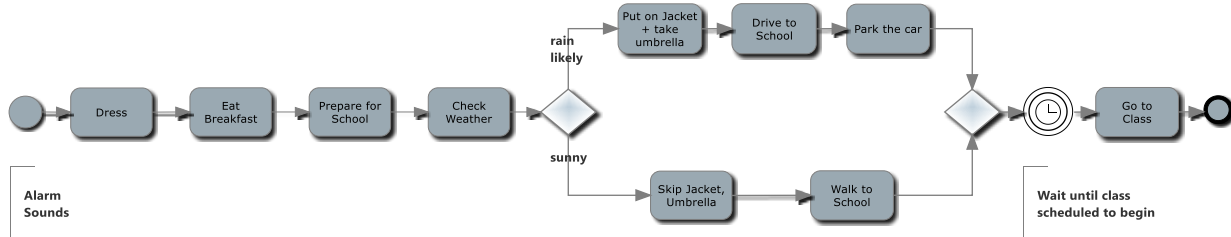


2. **(Connect)** Solutions for Parts a to c are shown below:

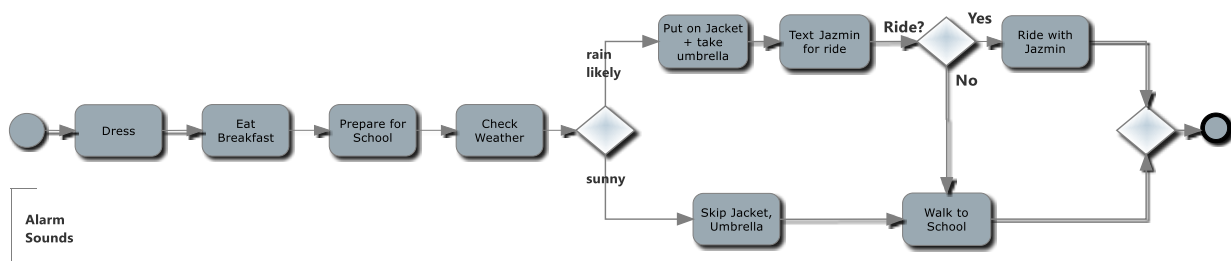
a. Solution should look similar to the following model:



b. Same as Part a but add an intermediate timer event to indicate the wait between arriving at school and going to class.

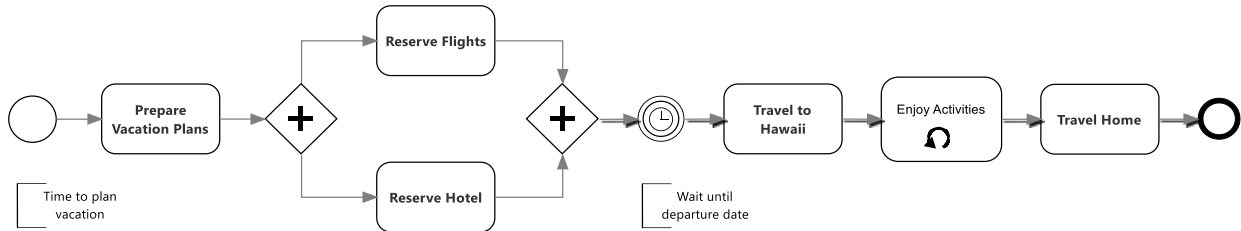


c. Same as Part a, but instead of driving, Larry texts Jazmin for a ride to school. If she can give him a ride, he rides to school with her. If not, he walks to school.

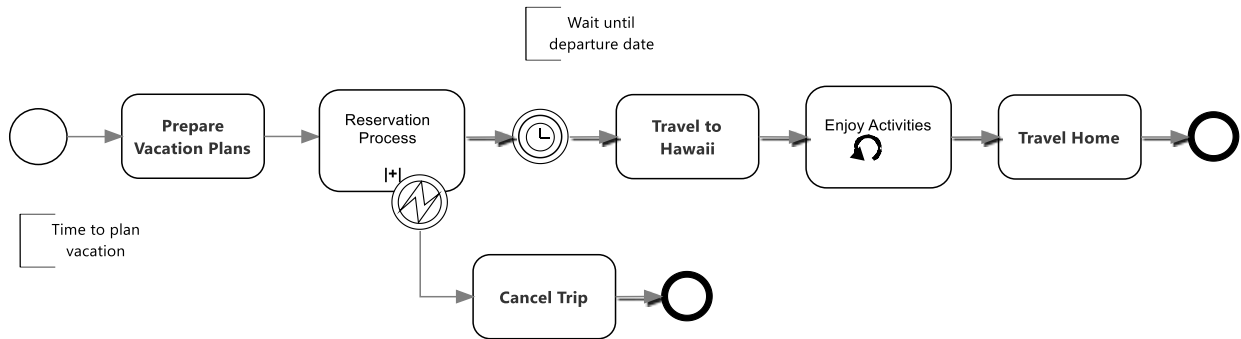


3. **(Connect)** Solutions for Parts a and b are shown below:

a. Yannis plans a vacation to Hawaii.

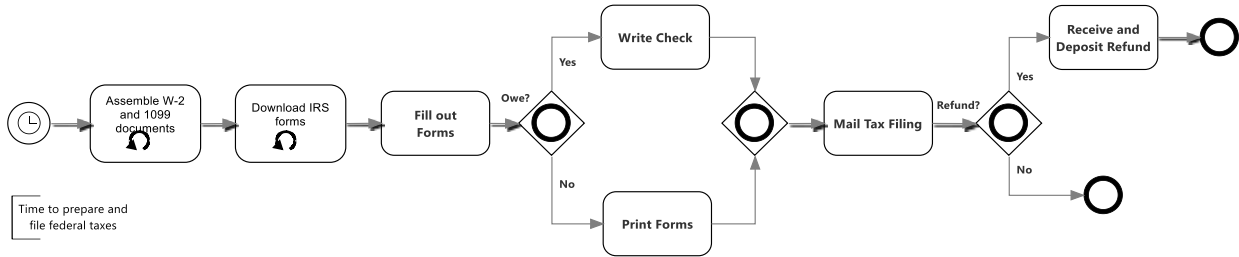


b. Same as Part a, but assuming that Yannis is having trouble staying within his budget. He tries alternate dates for flight and hotel reservations and cancels his trip if they are not acceptable. In this solution, the reservation process is presented as a collapsed subprocess. The details of the reservations subprocess, including testing alternate dates, could be modeled separately.

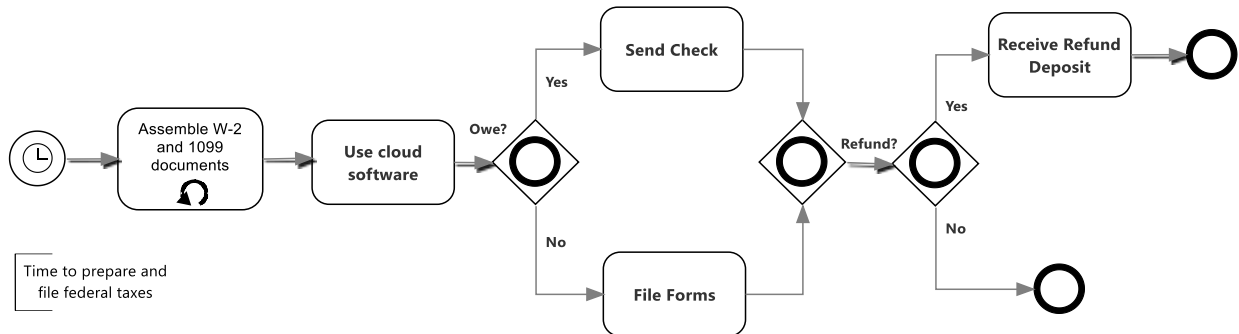


4. **(Connect)** Solutions for Parts a and b are shown below:

- a. Time to prepare and file your federal income taxes. Note that tasks could be represented as looping (for multiple forms or documents).



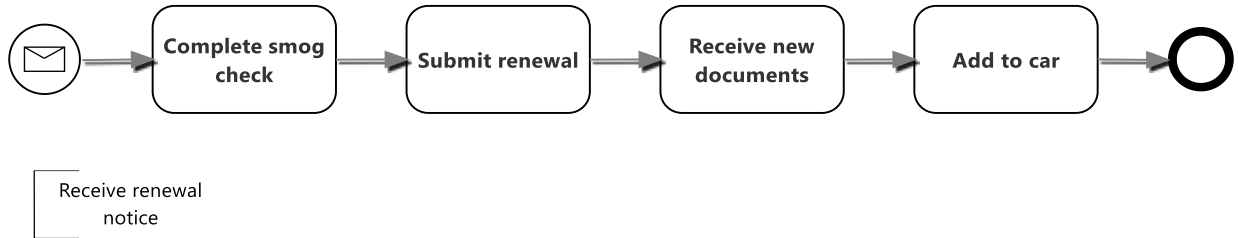
- b. Same as Part a, but instead of manual preparation, you use an online tax system to prepare and submit your tax forms. The refund, if any, is sent directly to your bank.



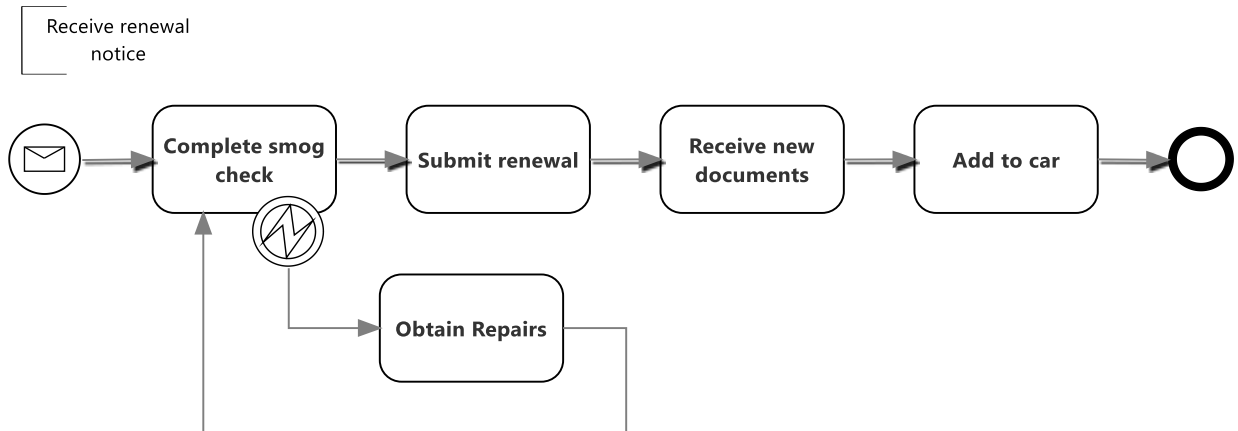


5. **(Connect)** Solutions for Parts a to c are shown below:

- a. Heide renews her automobile registration after completing smog check. Simple initial process.



- b. Same as Part a, but now the automobile fails the smog check and needs repairs from the dealer to pass. Note that you could use gateways to model the error condition.



- c. Same as Part a, but now the diagram uses data objects to represent the renewal forms received from the state, the smog check certificate, and the subsequent registration.

