

Assignment 2

Due: March 24

Worth: 4 points.

How to submit: you MUST submit all your work through the blackboard in one attempt. You won't be able to submit in more than one attempt!!!. You must attach your work as a **pdf** file to your blackboard submission. If you have any comments for me, you can write in comment section.

FDU blackboard link: (<https://webcampus.fdu.edu/webapps/login/?action=relogin>)

Comments: If you have used any online resources. You MUST cite the source and you must fully understand the information you adopted. Otherwise, it is plagiarism!!

Consider the following scenario:

“Field service employee Bob tries to open the door Nr.777 via the locking mechanism at its side. Unfortunately, he breaks his key inside the lock without opening the door. He desperately shakes the door handle, which causes an alarm. Security officer Steven, who is working at the control center, receives a notification about the alarm. The notification consists of an audio signal and a camera position. Steven opens LaVis and enters the camera position. LaVis shows him the live picture of camera 1337 associated with the alarm. The live picture is overlaid with a 3D-Model of the room in which door 777 is flashing red. Steven opens the “Security Staff” menu that shows that three security staff members are available to deal with the alarm. LaVis shows their names, IDs and the position of nearby cameras. In addition, the distance to door 777 is also shown. Two of the security staff members are working at a passage nearby; the third one is further away. However, when Steven watches the videos of the associated cameras, he sees that both are quite busy at the moment. So he decides to send Thomas, the third person. Using Lavis’s drag and drop facility, He drags the icon for Tom to the location of the door alarm. As a result of this action, Toms’ iPhone rings. Tom opens the display and sees the alarm including the location of the door. When Thomas reaches the door, he meets Bob who is still shaking the door. Thomas asks for Bob’s Staff ID Card. Then he verifies the ID card by typing the ID number into the iPhone. The iPhone connects to the control center server and verifies the ID number. After Tom compares Bob’s face with the picture on the ID card he unlocks the door electronically using LaVis on his iPhone. He selects the door and clicks the “Unlock” icon. Bob can finally go through the door.”

Answer the following Questions:

- 1) Draw a use case diagram showing all use cases you can identify. It should contain actors and relationships as well.
- 2) Provide a textual description of 3 of the identified use cases. Use the template from the Book.
- 3) Do a syntactical analysis of the flows of events using Abbott’s technique. Deliverable is a class diagram of the identified classes.
- 4) Use the identified classes to draw a sequence diagram per use case and follow the heuristics for sequence diagrams.