Reflection 1 - Requirements Analysis

Here, we will be constructing some requirements analysis, and then reflecting on the process and issues you encountered.

Please complete the following scenarios on your own. You can use scratch paper or do it digitally. You do not need to submit your diagrams or specifications. Remember, with these there is not a specific answer so don’t get discouraged if you feel stuck, just try your best and write about your issues in the reflection.

Once you have done all of these scenarios, please read and complete the reflection questions at the end of this document. You will then submit that reflection on Canvas as your assignment.

Problem 1 (ER Model):

“At Acme Corporation, we ask that our employees track their stats while working. These are: time on task, break time, lines of code written, time spent debugging, time spent writing tests, test pass percentage, and number of commits to the repository. Each employee also has identifying data about them such as their name, ID number, and job title. Some of these data points can be automated so that employees can spend more time working, and less time filling out forms. We would like to have two separate systems, one that auto tracks data, and a second one that employees fill out manually.”

Problem 2 (Abstract Class Diagram):

“Our app is an augmented reality game about collecting monsters from around the world, by having the player actually move in the real world to find these monsters. Each player has an ID and a list of monsters that they own. Players can trade with each other to obtain monsters they do not already have. Each of these trades involves 1 monster from each player, and each trade has its own ID in case we need to track monsters we later determine were obtained through hacking. Each monster has a name, the ID of the player who caught it, and a list of all trades it has been through.”

Problem 3 (State Machine):

“Within our Git system, individual commits go through a series of checks and updates to ensure that they are acceptable. When a commit is submitted, a series of pre-commit tests are run and if any of them fail, the employee is expected to edit and resubmit the commit. After all of those pass, the commit is then put up for review by the rest of the team. Those other team members can comment on the changes being committed, and the author needs to reply to every comment. They can also make changes to the commit based on the comments and then resubmit it, meaning it goes through the pre-commit checks again. Once all the team members have approved the commit and all comments have been replied to, the commit can be pushed to the repository. It is then deployed to the server. This involves the server being taken offline, and then the code is freshly installed on the server (this can take up to an hour!). Afterwards, the server is brought back online, and the integration tests are run. If those fail, the commit is automatically rolled back, and the author needs to edit and resubmit the code, starting with the pre-commit checks again. Once the integration tests pass, the commit has been successfully applied and the coding task is done.”

Reflection Assignment

Please answer the following questions. For each question, be sure to provide a full and well thought out explanation of your process. Your goal here is to spend some time reflecting on the activity you just completed, not just providing quick answers to the questions.

1. In Problem 1, do you feel that the ER diagram is helpful when trying to understand the system or would you prefer a class diagram?
2. In Problem 2, did you feel there was enough information to complete a meaningful diagram and if not what information would you have liked to have?
3. In Problem 3, did you feel that a state machine was an appropriate diagram for this situation or do you think a different diagram would have been more helpful?
4. Overall, is there anything not already covered that you encountered during the activity that surprised you about doing requirements analysis? (Such as difficulty creating certain types of diagrams, always feeling like you don’t have enough information, or anything similar?)