

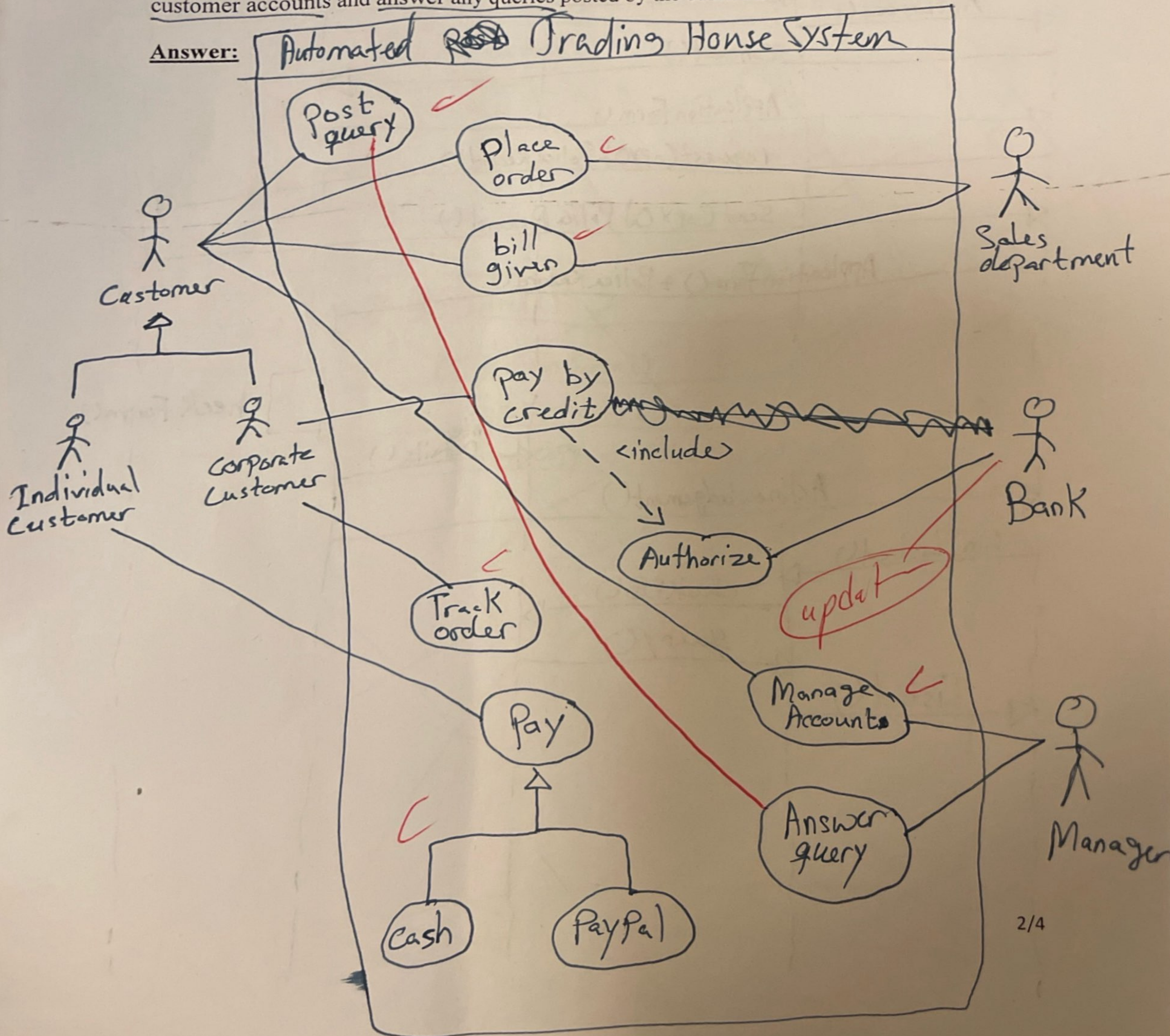
Exercise 1: (05 points)

4.15

Draw the use case diagram for the following description.

Consider an Automated Trading House System with the following information. The trading house has transactions with two types of customers, individual customers and corporate customers. Once the customer places an order it is processed by the sales department, the customer is given the bill. When the bill is ready, the corporate customers must pay by credit card where the bank will participate in the activity by authorizing the payment, and the individual customers pay by cash or PayPal. The corporate customers can Track his order. The system allows the manager to manage customer accounts and answer any queries posted by the customer.

Answer:

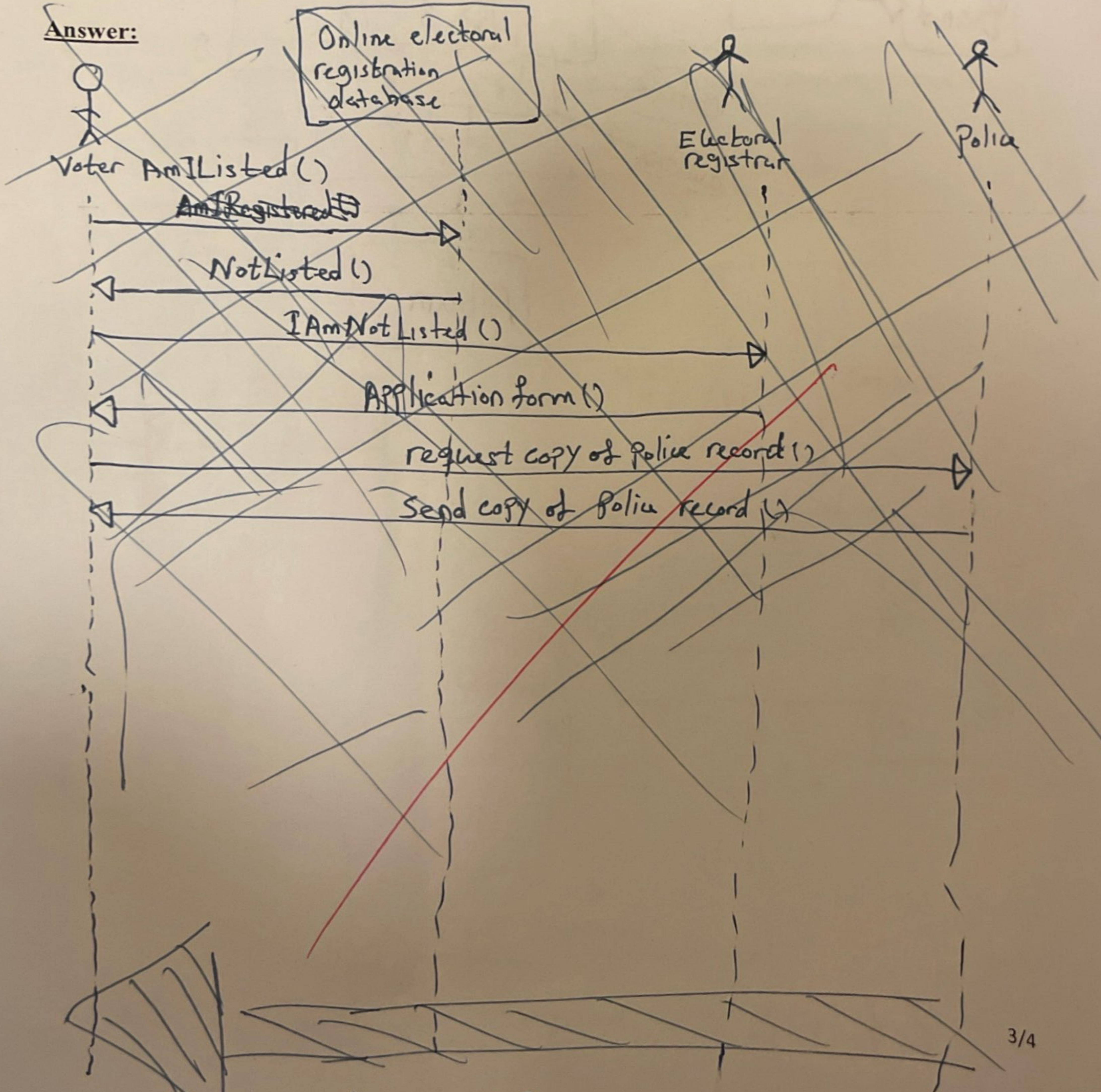


Exercise 2: (05 points)

5

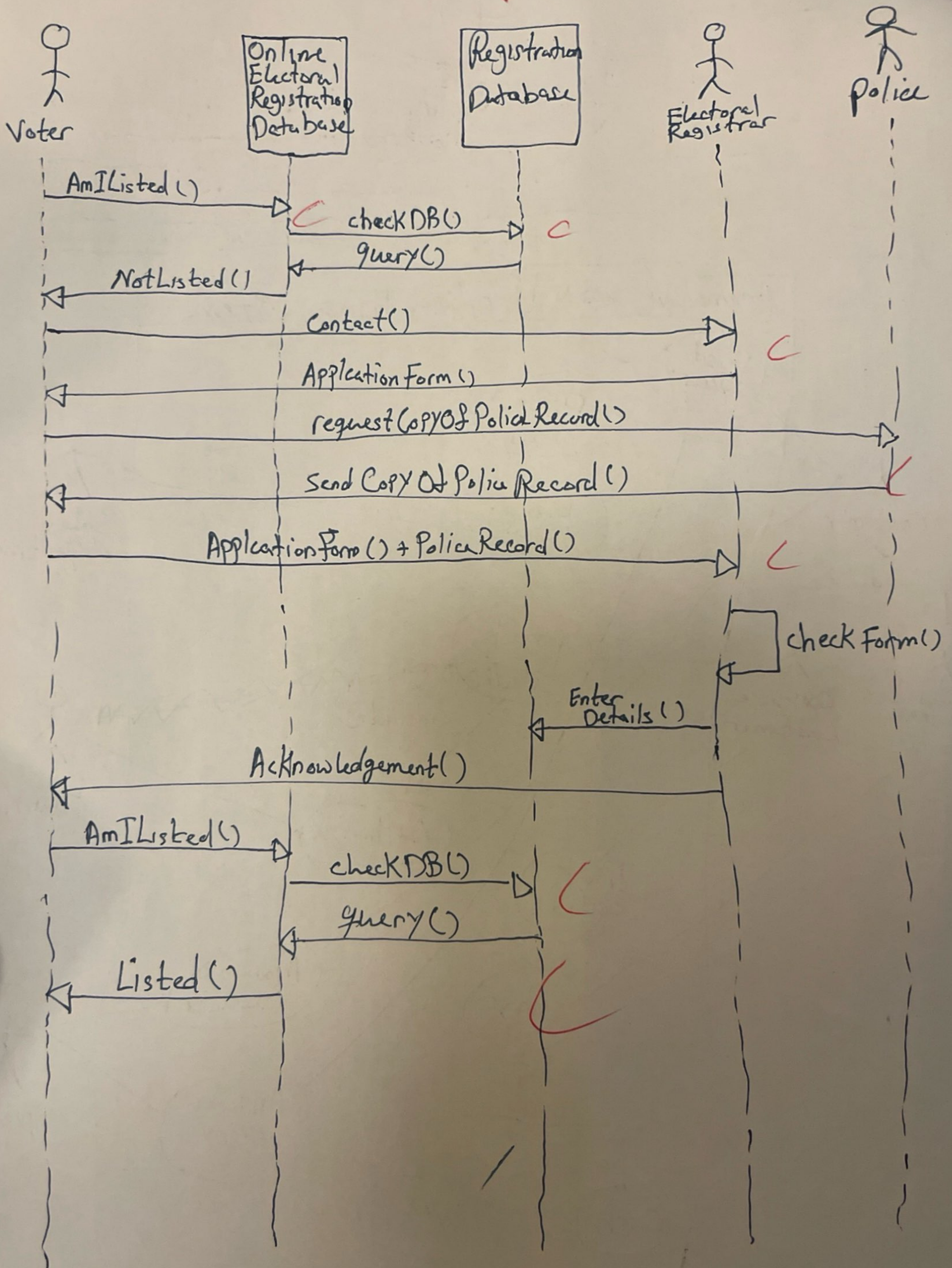
Draw a sequence diagram for the process of registering a new voter who is not currently registered to vote in an upcoming Al-Hilal Election. Assume that a voter starts by checking the online electoral registration database, to see if he is listed. When he finds that he is not listed, he contacts the electoral registrar, who sends him an application form. As part of the application, he needs to contact the police, to request a copy of his police record, as persons with recent criminal convictions cannot vote. He then sends the police record along with the application form to the registrar. The registrar checks the form is filled out correctly, and then enters his details in the registration database. The registrar then sends an acknowledgement to the voter, who finally checks the online registration database again to confirm that his application was processed.

Answer:



3/4

Check Answer



Exercise 3: (05 points)

4,75

Consider the following problem description:

An artist is either a band or a musician, where a band consists of two or more musicians. Each song has an artist who wrote it, and an artist who performed it, and a title. Therefore, each song is performed by exactly one artist, and written by exactly one artist. An album is composed of a number of tracks, each of which contains exactly one song. A song can be used in any number of tracks. A track has bitrate and duration. Because the order of the tracks on an album is important, the system will need to know, for any given track, what the next track is, and what the previous track is.

Draw a class diagram for the above description. Make sure to show attributes, multiplicities and aggregations/compositions, inheritance where appropriate. No need to show any operations.

Answer:

