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Comp 3700

Homework 2

1) Question 7.2 from your textbook (page 145).

a) Actors:

* User: Person who focuses on services
* Server: A computer that communicates between the source and the destination for the email messages
* Virus Checker: Software that protect against malicious content

b) Use Cases:

* Get email: Retrieve email from the server, then show it to the user.
* Send email: Take a message from the user to the email server
* Manage email: Delete, move, and manage email; also within folders.
* Set options: Edit fine settings
* Maintain address list: Store saved email addresses for the user

c) Use Case Diagram:



d) Normal scenarios for each use case:

* Get Email
  + User logs in
  + System displays the inbox folder’s mail
  + User requests that the system get new mail
  + System requests new email from server
  + Server returns new email to system
  + System displays the mail in the inbox folder, shows unread messages
* Send email
  + User logs in
  + User creates email, requests to send it through system
  + Local pc sends email through client to the email server
  + Server lets the client-side know it got the email to send
* Manage email
  + User logs in
  + User clicks on read messages
  + User deletes all read messages
  + User saves newest read message into new folder
* Set options
  + User logs in
  + User requests to changes email signature
  + System displays window to change it
  + User makes the changes
  + System saves changes
* Maintain address list
  + User logs in
  + System displays the inbox folder
  + User selects desired message
  + User adds sender into saved address book list
  + System saves

e) Exception scenarios for each use case:

* Get email
  + User attempt to log in
  + Server rejects password due to being incorrect



* Send email
  + User creates email
  + System cannot send due to no email in the recipient field



* Manage email
  + User attempts to move emails into folder
  + System cannot due to loss of internet connection



* Set options
  + User attempts to change password
  + System reports that it cannot due to illegal characters entered



* Maintain address list
  + User attempts to add email address to address book
  + System cannot due to email already existing in the address book



2) Question 7.3 from your textbook (page 145).

a) Actors:

* User: Person who seeks airline service
* Airline: Company that offers flights for purchase to users

b) Use Cases:

* Make reservation: book and pay for airline flight, choose seat
* Check availability: Get available flights with their prices based on departure, destination, date, airline preference.
* Handle benefits: frequent flyer points/status, check status, register for new frequent traveler account, book frequent traveler flights, show available flights
* Send an inquiry: Allow user to submit email to report flight dissatisfaction, issues with traveler benefit program, or any other message to the airline.

c) Use Case Diagram:



3) Question 7.10 from your textbook (page 146).

This diagram show the details of logging into the email system.



4) Question 8.9 from your textbook (page 160).

Activity diagram for a DVD purchase.



5) Question 8.10 from your textbook (page 160).

Activity diagram for the creation of a product

