



Daffodil International University
Department of Computer Science and Engineering

Faculty of Science & Information Technology

Midterm Examination, Spring 2021 @ DIU Blended Learning Center

Course Code: CSE325 Course Title: System Analysis and Design

Level: 3 Term: 2 Section: All

Modality: Open Book Exam

Date: Saturday 13 November, 2021 Time: 01:30– 04:00 PM

Two and half hours (2:30) to support online open/case study based assessment

Marks: 25

Directions:

- **Students need to go through the CASE STUDY shown in this exam paper.**
 - **Analyze and answer specific section based on your own thinking and work.**
 - **Do not share as this will be treated as plagiarism by Blended Learning Center.**
1. The increase in the population aging has brought more significant concern about how proper care will be provided to the elderly in the future. Thus, the development of technological solutions for the health domain has gained more prominence. Mobile healthcare technologies are particularly well suited for disease management, medication adherence, safety monitoring, health education and behaviour modification for wellness, especially among older populations, according to an organization that supports technology to encourage independent and community-based living for seniors.
So a renowned company named "ZTechCare" decided to make a mobile based application for the older people to monitor their daily health issues.
Suppose you are appointed as a system analyst for a " ZTechCare " company. As we know that System Analysis and Life Cycle has several steps:
 - a) Briefly explain which step of System Analysis and Life cycle is more challenging for building up this mobile based application? 2.5
 - b) To develop this app needed for long range planning and directions. How can you explain your strategic plan with your CEO of " ZTechCare". 2.5
 2. Apart from young people, older people in Bangladesh are now using various mobile-based solutions. However, still there are some barriers exist in the older people to use the mobile application since they are new with the technology. As a result, a thorough investigation should be carried out in order to create a user-friendly mobile application for them. Again, a survey can be useful in determining how they feel about a healthcare-related app. 5

Prepared a survey question and shared it with the older people (aged 50 to 80 years) in Bangladesh Context. This survey question is an attempt to investigate the attitude of the older people towards the use of mobile technology for healthcare. Survey is a good option. Besides, which Information Gathering Tools do you think to use for best practice to build up this app?

3. Tizan food shop wants to develop an automated system for them so that their customers can place orders through the machine rather waiting in a long line. After submission of an order the system will check whether the food items are in stock, if found then it will issue a status message to the customer, and will generate a shipping order to the warehouse, which will fill the order. When the order is shipped, the customer will pay the bill using the application and a receipt will be generated for the customer. The system will also produce various reports. Draw a context-level and Level 1 DFD from the above scenario. 5
4. "BdZ Ltd." is a fashion wares business company. They have 20 showrooms in Dhaka city and every showroom has several sales persons. They purchase finished dresses of men and women of all ages from different suppliers and sale those items to the registered or non-registered customers. All Purchases are controlled from the head office and distributes items to all showrooms based on their previous sales records. They have discount policy for the registered customers. They have three types of customer: Platinum, Golden and General. If a Platinum customer purchase items by less than 1000 taka then they will get 5 % discount and purchase items by more than or equal 1000 taka they will get 7 % discount. If a Golden customer purchase items by less than 1000 taka they will get 4 % discount and purchase items by more than or equal 1000 taka they will get 6 % discount. General customers will always get 2% discount whatever they purchase. Draw a decision tree, decision table for the above policy. 5
5. We all interact with various management information system every day at hospital systems. 5

Write a case study from any one of above mention system and identified deficiencies of the current manual system of your choices system.

Now, classify the above problems into missing functions, unsatisfactory performance, and excessive cost of operation of current system.

How would you set goals and sub-goals to remove the deficiencies?