

**Assignment No. 03**

**Spring 2019**

**CS507: Information Systems**

**Due Date: 30 July, 2019**

**Total Marks: 20**

**Obtained Marks\_\_\_\_\_**

## ***OBJECTIVE***

The objective of this assignment is to;

- 1- Evaluate student understandings in development and design processes for information systems.
- 2 – Practice design tools for information systems.

## ***INSTRUCTIONS***

1. This assignment contains 4 questions; you are required to solve all of them.
2. All questions in this assignment cover the topics from lecture 23 to 33. For all questions your answer must be concise, to the point and compact not more than 4 to 5 lines.
3. It should be clear that your assignment will not get any credit if:
  - The assignment is submitted after due date.
  - The assignment is not in MSWORD DOC/DOCX format.
  - The submitted assignment does not open or file is corrupt.
  - Assignment is copied (partial or full) from any source (websites, forums, students, etc.)
  - Assignment sent by email will not be accepted.

## Question No 1: (20 Marks)

Review the following information system requirements and prepare a suitable design using appropriate methodology (Flowchart and/or ERD).

Company A & B make financial transactions using X Bank having various branches. The bank maintains their accounts with Company Name, Address, Type of Account (saving/current), and Authorized person, address and contact information. The Accounts are opened in either of currency US\$, PKR and SAR. Any transaction made immediately updates the respective account balances and bank keeps track of account activity. The transactions nature is described as below;

**Frequency:** Single Time, N Times, Recurring

**Type:** Credit, Debit, Transfer

**Mode:** Online, Cash, Check, InBank, ExBank

**Transfers categories:** intra-bank, inter-accounts, inter-branch, Interbank, inter-own-account.

Ownership of account could be single, joint, a business, Non-Profit. All accounts have user associated data as well the status data. Transactions initiated are routed to security system within the bank that analyzes accuracy, consistency, reliability, validity and threat associated with completion of transaction. Once the transaction is found safe, it is processed in following way;

- 1- Verify Source account balance
- 2 – Destination account balance
- 3 – Commit
- 4 – Persist
- 5 – Notify Companies

### ***PART-A***

Draw a suitable diagram that show what steps a transaction follow with focus on how transactions are checked against false details. (10 Marks)

1. What Design Tool is best to describe the steps in transaction (2)
2. How the Transaction Start and End will be represented (3)
3. Draw the diagram and label all the components (5)

## *PART-B*

1. What design tool you will use to describe the component relationship and their properties. Identify all the entities their types and attributes in above scenario. (5)

#	Entity	Type	Attribute

2. Describe the components entities and their relationships using suitable graph/chart and label each part clearly (5)

**Note: assignment solutions only in MSWORD format shall be accepted,**

Best of Luck