

VICTORIA UNIVERSITY BANGLADESH



Assignment On

Course Name : System Analysis and Design

Course code : CSI-311

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Answer to the question no: 2

* Advantages of structured analysis and structured Design (SA/SD)

- ① Clarity and simplicity: The SA/SD method emphasizes breaking down complex systems into smaller, more manageable components, which makes the system easier to understand and manage.
- ② Better communication: The SA/SD method provides a common language and framework for communication the Design of any a system, which can improve communication between stakeholders and help ensure that the system meets their need and expectation.
- ③ Improved maintainability: The SA/SD method provides a clear, organization structure for a system, which can make it easier to maintain and ~~upta~~ update the system overtime.
- ④ Better Testability: The SA/SD method provides a clear definition of the inputs and output of a system, which makes it easier to test the system and ensure that it meets its requirements.

Answer to the question 1

System Design: System Design is the process of defining the architecture, components, modules, interfaces and data for a system satisfy specified

⊕ Input Design: In an information system input is the raw data that processed to produce output. During to input Design the Developers must consider to the input Device such as PC, MICR, OMR, etc.

Therefore, the quality of system input determines the quality of system output.

- * it should serve specific purpose effectively such as recording, and retrieving the information.
- * It ensure the proper completion with accuracy
- * It should be easy to fill and straightforward.

Output Design: The Design of output is the most important task of any system. During output Design developers identify the type of output needed, and consider the necessary output controls and prototype report layout.

Answer to the question no. 3

Object of Analysis modelling:

* Understanding needs: The process of analysis modelling in the understanding and extraction of user needs for the software system.

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* Communication: Analysis models facilitate communication between users, client Developers, and testers.

* Clarifying Ambiguities: Analysis model Assist in resolving requirement disputes and providing clarification on unclear Areas.

* Finding the Data Requirements: Analysis modelling assists in determining the relationship, entities, and qualities of the data.

* Defining Behavior: Analysis modelling in the definition of the system Dynamic behavior.

* System boundary Identification: it is made easier by analysis modelling which helps in defining the parameters of the software system.

* Elements of Analysis model:

① Data Directory: It is a repository that consists of a description of all data objects used or produced by the software. it stores the collection of Data present in the software. It is very crucial element of the analysis model.

② Entity Relationship Diagram (ERD): It depicts the relationship between data objects and is used in conducting data modeling activities.

③ Data Flow Diagram (DFD): It depicts the function that transformed when moving from input to output.

④ State Transition Diagram: It shows various modes of behavior (states) of the system and also show the Transitions from one state another state in the system etc.

Answer to the question NO: 4

* Bottom - UP strategy: Bottom up strategy follows the modular approach the design of the system. It is called so because it starts from the bottom or the most basic level modules and more towards the highest level modules.

Advantage	Disadvantage
1/ Provides fallback when new system fails offers greatest security and ultimately testing of new system.	1/ Causes cost overruns. New system may not get sales trail.
2/ Forces users to make new system work immediate benefit from new methods and control.	2/ No fall back if problems arise with new system requires most careful planning
3/ Allows training and installation without unnecessary use of resources. Avoid large contingencies from risk monetement.	3/ A long term phase in causes a problem of whether conversion goes well or not.
4/ Provides experience and line test before implementation when preferred new system.	4/ Gives impression that old system is erroneous and it is not.