VICTORIA UNIVERSITY BANGLADESH

Victoria University of Bangladesh

Assignment On

Course Name : System Analysis and Design

Course code : CSE-311

Submitted By	Submitted To
Name: Md. Abir Hossain Reg: 2219150051 Batch: 15th Program: B.sc in CSE	Umme Khadiza Tithi Department of CSE/CSIT Lecturer Victoria University Of Bangladesh

<u>Ans. to. the. Q.NO-1</u>

<u>System Design:</u> System Design is The process of
Defining the Architecture, Components, modules,
Interfaces, and Data for a system to satisfy specified.

* <u>Input Design:</u> In an Information system, input it is the Raw data
that is processed to produce output. During the input Design.
The Developers must consider the input Devices such as pc,
MICR, OMR, etc.
Therfor, The quality of system input determines the quality
of system output.

* it should serve specific purpose effectively such as storing,
Recording, and retericving the information.

* it ensures proper compliction with accuracy.

* it should be easy to fill and straightforward.

<u>output Design:</u> The Design of output is the most Important task
of any system. During output Design, developers Identify the
Type of outputs Needed, and consider the necessary output
Controls and prototype report layout.

Ans. to. the. Q. NO-4

* __Bottom-up strategy:__ Bottom up strategy follows the modullen approach. The design of the system. It is called so because it starts from the Bottom or the most basic level modules and moves 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 systems may Not get sain trail.
② Forces users to make New system Atecoork Immediate benefit from new methods and control.	② No Fall Back if problems arise with New system Requires most Careful planning.
③ Allows trainings and installation without unnecessary use of Resources. Avoid Large Contingencies From risk management.	③ A Long term phase in causes a problem of whether Conversion Joes well or Not.
④ provides exprience and Line test before implemention when prefenned New system.	④ fives impression that old system is erroneous and it is Not

☆ 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 Transform Data Flow, and it also shows how Data is Transformed when moving form input to output.

④ state Transition Diagram; it solved shows various modes of behavior (states) of the system and also shows the Transitions from one state to another state in the system. etc.

Object of Analysis modelling:

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

* Communication; Analysis models facilitate communication between user, clients clients Developers, and testers.

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

* Finding the Data Requirments; Analysis modelling Assists in determining the relationship, entities, and qualities of the Data.

* Defining Behavior; Analysis modelling aids in the defination of the system Dynamic behavior.

* system boundary Identification; it is made easire by analysis modelling, which helps in defining the program para parameters of the soco software system.

Ans. to. the Q.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 a system, which can improve communication between stakeholders ~~the Design of a system~~ 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 update the system over time.

④ Better Testability: The sA/sD method provides a clean defination of the inputs and output of a system, which makes it easier to test the system and ensure that it meets its requirments.