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8th Batch - CSE

Course title : System Analysis And Design.
Course code : CSI-311

Ans: to the Q: NO: 01

Ans: System Design : System design is the core concept behind the Design of any distributed, system. System design is defined as a process of creating an Architecture for different components, interfaces & Modules of the system & providing corresponding data helpful in implementing such elements in system.

Inputs to System Design :

Systems design takes the following inputs -

→ Statement of work.

→ Requirement determination plan.

→ Proposed system requirement including.

- A conceptual data module, modified DFDs & meta data (Data about data).

Output for system design;

System design gives the following output:

- Infrastructure & Organizational change for the proposed system.

- A data schema, often a relation schema.

- Metadata to define the table/file & columns/data items.

- A function hierarchy diagram or web page map that graphically describes the programme structure.

- Actual or pseudocode for each module in the programme.

- A proto type for the proposed system.



Ans: Structured Analysis: Structured Analysis is the term that is used when a set of particular steps are taken to design the programme or system that a customer is requesting. There are tools that make effective use of structured analysis because it benefits from identifying problem much earlier on in the creation of a programme which saves money & time in the long run because that problems can be amended as soon as they are identified instead of after. These problems are found earlier on because the information that is gathered and the steps that are followed allow for much more detailed design than if the analysis was not structured properly which means that there is much more during the analysis & design stage.

There are many important steps for structured Analysis:-

→ Investigation of the current system & identifying all the current problem that it holds.

- Modelling the newer system based around the issue found when investigating the current system so that they are first.
- Modelling the newer physical environment of the system.
- Investigating & concluding whether or not there any alternatives that are possible.
- choosing the best approach for the new system.
- Producing the graphical aspects of the new system.

Advantages of structured analysis & structure design:

- (1) Clarity & simplicity: The SA/SD method emphasize breaking down complex system into smaller, more manageable components which makes the system easier to understand & manage.
- (2) Better communication: The SA/SD method provides a common language & framework for communication the design of system, which can improve communication between stakeholders & help ensure that the system meet their needs & expectation.

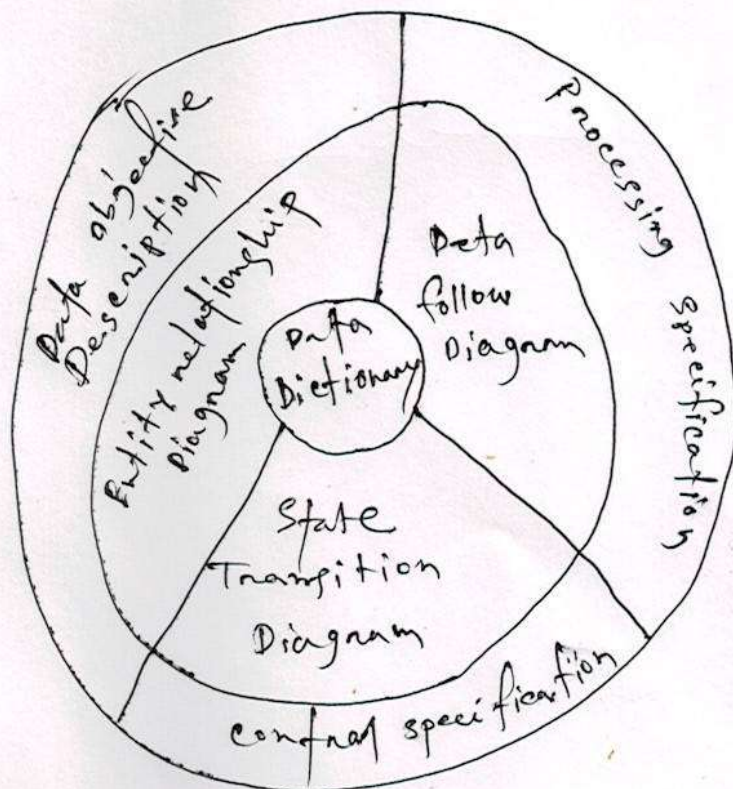
(iii) Maintainability: The SA/SD method provides a clear, organized structure for a system for a system, which can make it is easier to maintain and update the system over time.

(iv) Better test ability: The SA/SD method provides a clear definition of the inputs & output of a system. which makes it easier to test the system & ensure that meet its requirements.



Ans: to the Q: NO: 03

Ans: Objective Analysis modeling: The analysis model must achieve three primary objective to describe what the customer requires to establish a basis for the creation of a software design, & to define a set of requirements that can be validated once the software is built.



objective analysis modeling.

☐ Data Dictionary: It is a repository that consists of a Description of all data objective used or produced by the software.

☐ Entity Relationship Diagram (ERD),

☐ Data Flow Diagram.

☐ Process specification.

☐ Control specification & data objective description.

☐ Element of the analysis modelling: The specification element of the analysis model are dictated by the analysis modeling method that is to be used, However, a set generic element is common to most analysis models.

☐ Scenario based elements: The system is described from the users, point of view using a scenario based Approach. It always good idea to get stakeholder involvement of the best ways to do this is to have each stakeholder write use-case that describe how the software engineering model will be used.

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Bottom up strategy's Advantage:

- Using your resource: You are already paying your staff to come to work & do their job, so you might as well also take Advantage of the insights they gain from being immersed in day-to-day operation. They see & know things to which you don't have access when you are held up in your office.
- Boosting Morale: Like everyone else your employees will value feeling valued. A bottom-up approach acknowledges that their insights & input can help make your company a bottom business.
- Flexibility: A business that uses a bottom-up approach is well positioned to adapt when unpredictable circumstances occur. If only managers know how to solve a problem, then that problem can't be solved if no manager is present, however if employees are empowered to also make management,

Disadvantage of the Bottom-up strategy:

→ Lack of cohesion: When decisions are being made at multiple levels, your business runs the risk of operating without clear strategy. You may receive quality input from multiple sources, but employees may be operating without checking.

→ Lack of experience: All through employees often see & hear things that managers do not, managers often have training & experience that allow them to consider the bigger picture often have Antipetrol. A bottom-up management approach introduces the risk that workers will try untested ideas without the board's perspective & knowledge necessary to do effectively.

→ Ego strife: When multiple employees are empowered to make decisions & propose change, your business runs the risk of having egos clash when staff members disagree. This can cause disharmony that egos clash when staff members disagree.

