Solved Question Paper December 2016

System Analysis And Design

4.a)Explain any two ways of Requirements Gatherings. What are their shortcomings ? Use examples to explain.

Finalizing the requirements of the system to be built is the backbone for the ultimate success of the project. It involves confirming the functions and constraints of the system. When the requirements of the system are inaccurate, it may lead to the following problems :

- Delivery schedules may be slipped.

- Developed system may be rejected by the client leading to the loss of reputationand amount spent on the project.

- System developed may be unreliable.

- Overall cost of the project may exceed the estimates.

There are different ways of finding the system requirements. Two of them are joint application development and prototyping.

1. Joint Application Development

Joint Application development is a process in which group meetings are held to analyse the problem and define the requirements of the desired system. In JAD, each participant is expected to attend and actively participate.

The group includes : sponsor, the facilitator, the user manager and IT staff.

When JAD is used to find requirements, it is known as Joint Requirements Planning.

JAD session spans from 3-7 days but in special cases it may continue to two weeks. Success of JAD depends on proper planning.

Three steps to be followed for a successful JAD session :

1. Selection of a location for JAD session

2. Selection of JAD participants

3. Preparation of agenda items for JAD session.

- JAD sessions are usually held in a location different from workplace. The meeting room should be equipped with white board, overhead projector, data projector, laptop, printer, scanner etc.. There should be name tags for each participant.

- Preparation of the agenda is the key for the success of JAD session. Agenda must be brief, should mention the objective of the session. It must mention the item to be discussed in each session and the time allotted for each item. Agenda contains three parts namely, the opening, the body and conclusion.

- Guidelines for successful JAD session :

1. Agenda should be followed strictly.

2. Topic should be completed within allotted time.

3. Ensure that the scribe is able to take notes.

4. Avoid the use of technical jargon unless essential.

5. Try to get group consensus.

6. Ensure that the participants follow the rules.

- Disadvantages of Joint Application Development (JAD)

- Since it is a meeting of many people, there may not be sufficient time for everyone to speak.

- Only a few people may dominate the discussion. So, the outcome of the meeting will be the view of those who spoke most during the meeting.

- The problem with such meetings is that some people are afraid to speak out for fear that they may be criticized.

Participants of JAD :

Sponsor : He/she is a person in top management. The sponsor plays an important role in the process of JAD. He/ She works closely with JAD leader to plan the session by identifying individuals from the user community.

Facilitator : Facilitator is a single individual who plays an important role as leader. She/he leads all the session that is held for system development. She/he must have good communication skills, negotiation skills, ability to eliminate group conflicts, possess good knowledge of business, has strong organising power, quick and partial decision making capability. The facilitator plans session for JAD, conducts the session and follows the decision of the session.

Representatives of the Clients : They will also attend the JAD session. They are chosen by the the project sponsor based on their knowledge of the business system. The role of the representatives of the clients is to communicate the business rules and the requirements of the desired system.

Scribe : Scribe records proceedings of the meeting. The proceedings are published and demonstrated to the attendees immediately after the meeting. Scribes need to have a good knowledge of systems analysis. Systems analysts usually play this role.

IT staff : such as programmer also participate in the session. IT staff listen and take notes regarding issues and requirements mentioned by the clients and analysts. They can contribute their technical ideas of the current system.

Managers : The role of managers during JAD is to approve project objectives, establish project priorities, approve schedules and costs and approve identified needs and implementation plans.

2. Prototyping :

▪ Prototype is nothing but a model of the software to be built.

▪ Designing and building a scaled down, but functional version of a desired system is known as prototype.

▪ It is developed using 3GL, 4GL with query, screen, report, form etc.

▪ The analyst builds the prototype as per the basic requirements of the user.

▪ Whenever the prototype is shown to the clients, they give their suggestions regarding improvement of features etc. or they may accept it. There are possibility of rejection also. Based on the user feedback, the analyst improves the prototype and makes a new version of the prototype. This process continues till the client is satisfied and fulfils his/her needs.

▪ Prototyping is used in the following situations :

- Requirements are not clear.

- For any complex systems, prototypes are more useful.

- In the cases where communication problem exist between customer and analysts, this model is useful.

- Tools and data are readily available for building the working system.

- Disadvantages of prototyping model :

- In case of prototyping, formal documentation is avoided.

- Usually, prototypes are stand alone systems. Building prototypes is difficult to cases where data has to be shared.

- Important issues, such as security and validation are not given importance.