Static and

Q Write a Note on:-

(*) Review Types :-

(*) Review During Analysis :-

In general, software development process start with information gathering and analysis. In this phase company business Analyst prepare BRS i.e. Business Requirement Specification and Correspondiny software resources. BRS defines requirements of the customer. S/W resources defines functional requirement to be developed and system requirement to be used. In this phase they will conduct review on the documents.

BRS ⇓ → S/W Req. Specification

- Are they complete?
- Are they correct?
- Are they achievable? (w.r. to technologies)
- Are they Reasonable? (w.r. to Hire) (with respect to Hire & Technology)
- Are they testable?

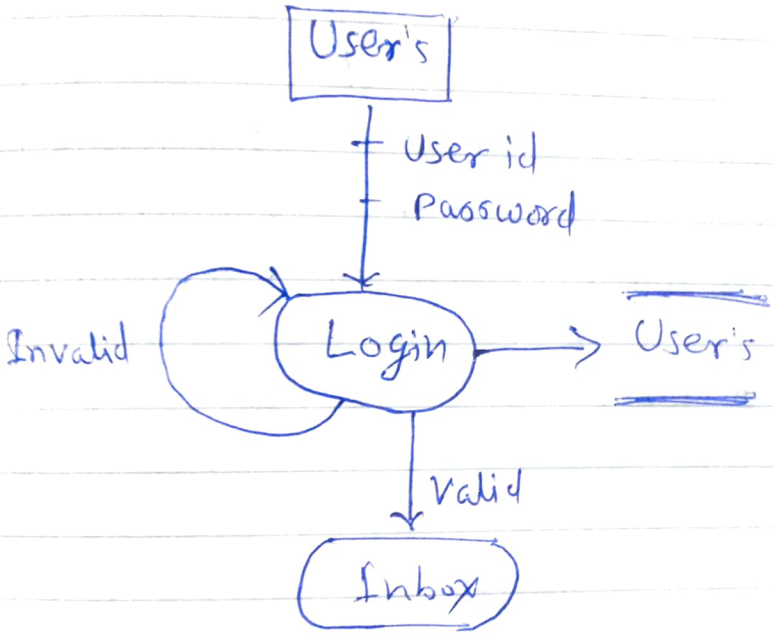
Reviews During Design :-

After completion of analysis and their reviews, Designer of technical support people prepare external design of the system. External Design define high level ...

In this phase they will conduct reviews to estimate completeness and correctness of the document. In this review they will use following factors

HLD (High Level Design) → LLD's (Low Level Design)

- Is the Design is good ?
- Are they make Right requirement ?
- Are they complete ?
- Are they followable ?
- Does they handle Errors ?



⊛ Peer Review :-

The easiest way to get team members together and doing their first formal reviews of the software is through peer Reviews

4 key elements are -

- Look for problems
- Follow Rules
- prepare for the Review &
- write a report

This method is really more of an "I will show you mine source code, Test case, SQL and so on... If you show me yours source code, Test case, SQL and so on...

Requirement Review which is performed by System analyst, Business Analyst, PM etc... is the study and discussion of computer system requirements to ensure they meet stated user needs and are feasible
Reviewed statement of requirements ready to be translated into system design.

Design Review which is performed by Designer, on-site co-ordinator is the study and discussion of the computer system design to ensure it will support system requirement
System design, ready to be translated into computer programs hardware configuration, documentation and training.

⊛ Walkthroughs :-

Walkthroughs are less formal than inspection mainly because of lack of preparation.
In Walkthroughs the participants simply come to the meeting, the presenter prepares, there is no additional effort by the participants prior to the meeting.
Walkthrough objective to detect defects and become familiar with material
Walkthrough Elements are
- A planned meeting where only the presenter

- A team of 2-7 people, lead by the producer / Author
- The presenter is usually the producer

Walkthrough can cover more material than inspection and reviews because the presenter is the producer and other participants do not have a heavy participating work load.

* Code Walkthrough :- Performed by Developer, TL
An informal analysis of a program source code to find defects and verify coding techniques. Computer software ready for ~~testing~~ testing or more detailed inspection by the developer

* Code inspection :- Performed by Developer, TL
A formal analysis of the program source code to find defects as defined by meeting, computer system design specification, usually performed by team composed of developers and Subject Matter Expert (SME)
After this computer SW ready for testing by the developer.

Q. What is Formal Technical Review (FTR) ?
⇒ It is a Software Quality Control activity performed by Software Engineer. The objective of (FTR) are :-
1) To uncover error in function, Logic or implementation For any representation of the software
2) To verify that the software under review meet its requirements
3) To ensure that the software has been

represented according to pre-defined standards.

4) To achieve software that is developed in a uniform manner and to make project more managable.

Q Write a Note On Following :-

8.4] Review Meeting, Review Guidlines, Review Reporting and Record Keeping

In Review meeting typically involved 3 or 5 people, the duration of meeting may be 2 or 3 hours for that minutes of meetings note down where Following Question have to discuss and soln is written.

What was Reviewed ?
Who Reviewed it ?
what were the Finding ?
what were the conclusion ?

Review Guidlines :-

1. Review the product not the producer (Error should point it out gently)
2. Set an agenda and maintain it.
3. Limit the debate, set time for it.
4. Find the problem area
5. Take a written note
6. Limit the no. of participants and insist upon advance preparation
7. Develop checklist for each product
8. Conduct meaningful training for all reviewers
9. Review your early reviews.

Review Reporting and Record keeping :-

A reviewer records all issue that have been raised, summerized it at the end of review meeting and a review issue list is produced.

A review summary report answer the question like

(1) What was reviewed ?
(2) Who review it ?
(3) What were the findings and conclusion ?

The review issue list serves two purposes. -

(a) To identify problem areas within the product and
(b) To serve as an action item checklist that guides the producer as corrections are made.

Q. What is Data Flow Analysis ? [8.5]

A method of ensuring that the data used by the program has been properly defined and that the defined data is properly used.

A program can be represented as a flow graph with information about variable definations and references.

Data flow analysis can also be used in test data generation, Exploiting the relationship between points where variables are defined and points where they are used.

Q.7 Explain Control flow Analysis :-

8.6] ⟹ Control flow Analysis requires the develop
of a graphic representation of a program to
analyze the branch logic within the program
to identify logic problem.

A large class of application are by
events rather than data, produce control information
rather than data, produce control information
rather than reports or displays and process
information with concern for time and
performance.

An event or control item is implemen
as a Boolean value (For Ex - True or false
or ON or OFF, 1 or 0).

To select Potential events following
Guidlines are suggested :-

(1) List all sensors that are read by the Softwar
(2) List all intrupt conditions
(3) List all switches
(4) List all data conditions.
(5) Describe the behaviour of a system by identifyin
States.