

## 1. What are workflows in software development?

Your development workflow is **the process by which your organization develops software**. A typical development workflow starts with product definition, and then moves through development, testing, release, and production stages.

## 2. What is Check Point in software project execution?

Projects occur as a series of phases, structured along a time line designed to produce deliverables, meet stated goals, and utilize allocated resources. ... Checkpoints provide a basis for analysis and evaluation, to determine whether the project is proceeding as planned, and to take corrective action as needed.

## 3. Define Major Milestones.

**Major milestones** are system-wide event that is performed at the end of each phase of development. These milestones can be used in various process models even in conventional waterfall model. They generally help in providing visibility to system-wide issues. They also help to synchronize management and engineering perspectives. It helps in verifying that target or goal of each phase has been achieved successfully or not. They are used to achieve concurrence among every stakeholder in present state of project. These milestones are very much essential to confirm and ensure that requirements understanding, life-cycle plans, and product's form, function, and quality are at their balanced levels of details. It also helps in ensuring consistency between different artifacts.

## 4. What are the Examples of Workflows Across Different Industries

Workflows are as diverse as the industries and people that use them. The following are simple examples of how workflows may be used in various industries.

- **Human Resources:** Workflows can dictate new hire processes, how leave is processed, annual training requirement, and pay processes.
- **Pharmaceutical Manufacturing:** Using workflows in quality control in areas such as testing of raw materials, production of medicines, packaging of products, post-manufacture testing, and preparation for shipment.
- **Customer Service:** A workflow which assigns investigations for customer complaints.
- **Military:** Deploys workflow to manage a hostile situation and follow the rules of engagement.
- **Travel:** Employs a workflow to manage a client's flight, hotel, tours, and auto rental reservations for a travel agency.
- **Healthcare:** A workflow which manages the receipt of a prescription from a physician through its filling and eventual pick up processes by the patient.
- **IT:** Uses workflows to dictate how each type of software/hardware issue called in by a staff member is addressed.

## 5. Define Status Assessments.

Status Assessments generally provides mechanism that is useful for addressing, communicating, and resolving issues or problems regarding management, technical, and project risks. Its main objective is to ensure that all expectations of all parties are synchronized and consistent. These are done to address and have check on progress and quality indicators, ensure continuous attention to dynamics of project. It also maintains communication between all stakeholders. It also provides management with frequent and regular insight into progress that is being made.

## 6. List the sequences of project checkpoints?

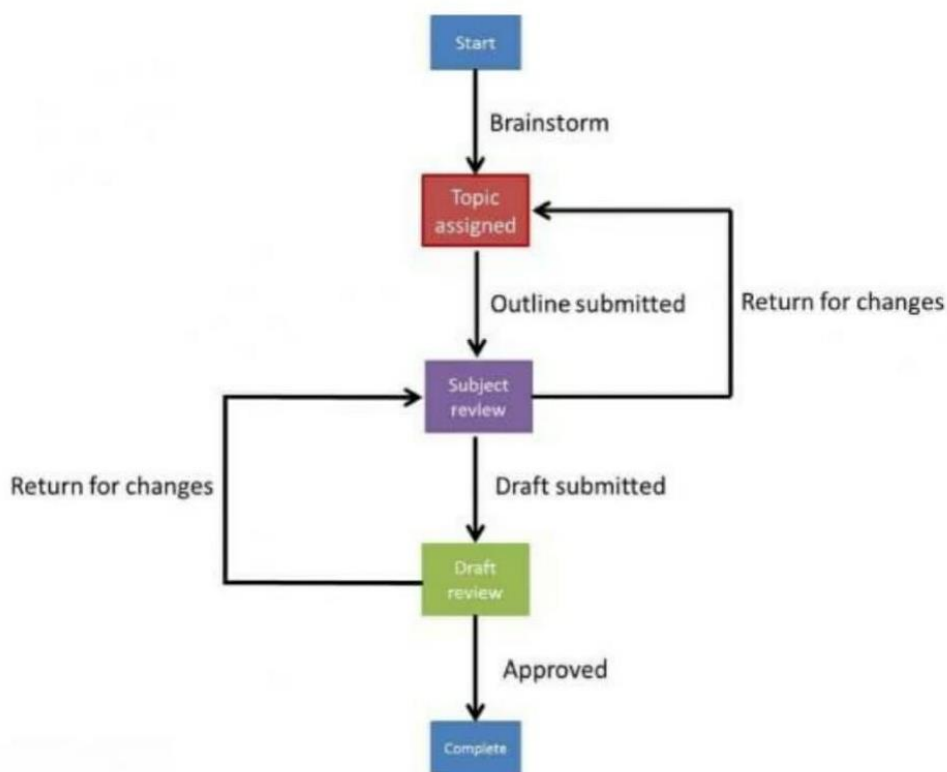
These three types of joint management reviews are given below :

1. **Major Milestones**
2. **Minor Milestones**
3. **Status Assessments**

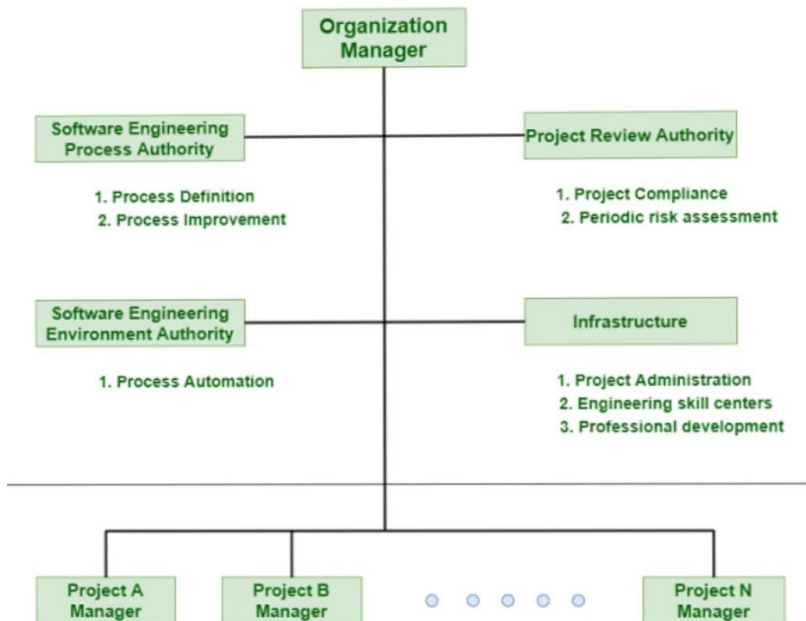
## 7. Define Work Breakdown Structure

It includes dividing a large and complex project into simpler, manageable and independent tasks. The root of this tree (structure) is labelled by the Project name itself. For constructing a work breakdown structure, each node is recursively decomposed into smaller sub-activities, until at the leaf level, the activities becomes undividable and independent. It follows a Top-Down approach.

## 8. What are the components of workflow?



## 9. What is a line of business organization?



### Default roles in a Software Line-of-Business Organization

## 10. Give the 2 perspectives to derive project plans.

Two perspectives are generally required to derive **project plans**. These perspectives are given below :

### Forward-Looking :

- The Forward-Looking approach is also known as Top-Down approach. This approach generally starts with describing and explaining various project tasks that involve starting with project aim or end deliverable and breaking it all down into smaller planning chunks.
- Top-down budgeting also refers to a method of budgeting where project managers prepare a high-level budget for organization.

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### Backward-Looking :

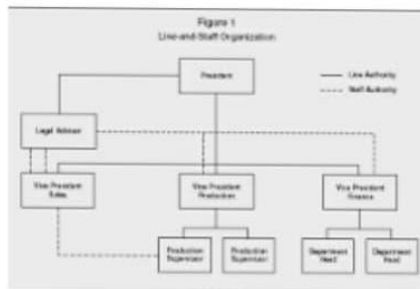
- Backward-Looking approach is also known as Bottom-up approach.
- In this approach, project team breaks requirements of clients down, determining lowest level appropriate to develop a range of estimates, covering overall scope of project based on available definition of task.

## 11. What are the 5 stages of SDLC?

The SDLC has five phases:

- **inception,**
- **design,**
- **implementation,**
- **maintenance,**
- **audit or disposal**

12. Give an example for line organization?



Examples of **line organizations** are **small businesses in which the top manager, often the owner, is positioned at the top of the organizational structure** and has clear "lines" of distinction between him and his subordinates.

13. Define Iteration Planning Process in Software Project Management and its types?

**Iteration planning** is generally process to adapt as project unfolds by making alterations in plans. Plans are changed simply due to based upon feedback from monitoring process, some changes on project assumptions, risks, and changes in scope, budget, or schedule. It is very essential to include the team in planning process. Basically, planning is generally concerned with explaining and defining and the actual sequence of intermediate results. It is an event where each of team members identifies how much of team backlog, they can commit to delivering during an upcoming iteration.

- **Inception iterations**
- **Elaboration Iterations**
- **Construction Iterations**
- **Transition Iterations**

14. What are the 4 types of project organizational structures?

According to PMI, there are four basic types of organization:

- **Functional**
- 2. **Matrix**
- 3. **Projectized**
- 4. **Composite.**

15. What is software engineering evolution?



**The process of developing a software product using software engineering principles and methods** is referred to as software evolution. This includes the initial development of software and its maintenance and updates, till desired software product is developed, which satisfies the expected requirements.



## 16. What is the project process?

The project process means **a process as a unique action and represents the whole project implementation and the internal processes in the project**. Work instructions, procedure methods, network plans and tools are also considered.

## 17. Why is process automation important?

**BPA improves compliance so businesses** don't run afoul of regulations and incur large penalties and fees—it also applies controls to a business to mitigate fraud and theft within a company. It can also speed up processes so that work is completed faster and with less repetition.

## 18. What are the 4 types of automation?

### **Different Types of Industrial Automation Systems**

- Fixed Automation. Also referred to as hard automation, fixed automation systems carry out a single set of tasks without deviation.
- Programmable Automation.
- Flexible Automation.
- Integrated Automation.

## 19. What are the metrics for software quality?

### **Measuring Software Quality using Quality Metrics**

- Code Quality.
- Reliability.
- Performance.
- Usability.
- Correctness.
- Maintainability.
- Integrity.
- Security.

## 20. What is meant by management indicators?

Abstract. Software management indicators are **aids to the management of software projects**. By collecting data at all stages of development, a manager can learn to detect early warnings of problems and to control the growth of problems.