Top 50 Project Manager Interview Questions & Answers

1. How will you define a project?

A project is a set of task/activities undertaken to create a product, services or results. These are temporary, in the sense that they are not routine work like production activity but most often one time set of activities undertaken.

2. Provide some examples. A project for a product will result in a complete product or part of a product. An example would be the creation of the Microsoft Surprise tablet that used a liquid magnesium deposition process to create the enclosure. The process developed in the project will be used for subsequent production of the tablet. Examples could include development of a new product or process (as in the example), constructing a road or a bridge (infrastructure in general), developing a computer/information system, etc.

3. What is your view of Project Management?

Project management involves applying the knowledge & skills of the project team members including the project manager, application of tools and techniques available to ensure the defined tasks are completed properly. Proper completion means implies achievement of end results within given cost and time constraints. It usually means balancing of the constraints of scope, budget, schedule, quality, risks and resources.
4. Are there distinct kinds of activities in a project?

Most often any project goes through some easily identifiable set of activities during its lifetime. Some typical activities can be identified as related initiating a project. Planning set of activities are required to plan the activities to be undertaken to achieve the defined goals. Executing group of activities help getting the project done. A related set of activities are required to monitor and correct the course of actions to keep the project on the planned course charted for it. Final set of activities are related to the systematic closure of the project. Most important of which is, of course, to formally record what has been learnt during the execution of the project. When documented, this set of documents, related forms to be used, the way estimates are to be made, database of estimates of similar projects etc. are often referred to as Organizational process assets.

5. What do you think is the difference between projects, programs and a portfolio?

Projects are undertaken for a specific or a set of related purposes. A program is a set of projects managed in a coordinated manner to achieve different parts of an overall goal. For example the NASA lunar landing program had the development of the command module and the lunar landing modules as separate projects. A portfolio is a collection of projects, programs and even other portfolios that help an organization achieve some common high level business purpose.

6. Who is a stakeholder?

Any person, organization or an entity whose interest is affected, positively or negatively, because of the project. The influence of stakeholders is an important issue to take into account in any planning and subsequently during execution of it as well.

7. What are organizational influences?
Every organization has a certain way of doing things, collective wisdom about how things can best be done, etc. and these influences the planning and execution processes. These influences need to be taken into account when estimating, planning for activities related to projects. These are often mentioned as organizational environmental factors.

8. Can you explain project life cycle?

A project has distinct phases when the range of activities required to carry out the project work differ. There is a distinct “start” phase, followed by an organizing and preparing phase. “Carrying out” is the actual execution part of the project. “Closing” phase makes sure the temporary activities related to the project are closed systematically. The points in time when the phase changes happen are named variously as phase gate, exits, milestones or kill points. If a project is to be closed, it is decided at these stages based on the performance or if the need of the project has disappeared.

9. What to you understand by a project charter?

This is a document where it all begins. Project authorization is done on this document and a project would be initiated with the top level requirements listed in this document. Initial requirements as seen by stakeholders and the outcomes of the project also are listed in it.

10. What do you understand by plan baselines?

Baselines are the final version of all plans before the project execution starts. Project baselines are the starting versions of all related plans of a project, be it the time schedule, the quality plan, the communication plan or whatever. This acts as the reference against which project performance is measured.

11. What qualifications are required to be an effective project manager?

Besides being a good professional manager, the PM needs to have additional personal skills for being effective. It is not only essential for him to have project management skills but be proficient in them. Attitude, core personality characteristics and leadership qualities are needed. Team management and leadership skills that help the team reach common objectives and goals are required.

12. What are processes and process groups?

A process is a defined way of doing things. Not only does the process define the actions to be taken but also in what sequence they are to be carried out. Process groups are a set of processes that are applicable to various stages of a project. For example, initiating process group, planning process group, etc. Each of the processes has a defined set of inputs and produce defined outputs by applying a set of tools and techniques on the input.

13. What are the knowledge areas relevant to doing a project?
Scope management, time and cost management knowledge areas are quite obvious. Same goes for quality management too. To complete a project in all its aspects one needs to be aware of the project integration knowledge area. Communications is an essential issue so is the communication management knowledge. Procurement and risk management are two vital support areas. Since people get things done Human resources management is also an equally important area.

14. What is RAID as it related to project management?

RAID stand for risks, assumptions, issues and dependencies. These are vital items that a PM should always be aware of. There are always risks about actions and a PM must take least risk actions. Unless assumptions about any estimates or actions are clear, these can go wrong. Issues and dependencies also limit the choices of actions often.

15. What are the important processes for project integration management?

It starts with a project charter development. Project management plan development is another important activity. Direct and manage project execution and monitor and control are plans that are to be followed all through the project. Closing of the project (or the current phase) is the final set of activities for integration management. Since changes are often unavoidable an integrated change management plan must be developed to guide all changes systematically.

16. What is a SOW?

SOW or the statement of work is a detailed description of the outcomes of the project in terms of what products, services or results are expected from the project. Most detailed SOW are usually given by the customer if he is the one requesting the project.

17. What does Scope management involve?

Typically this process involves collecting requirements, defining scope, creating WBS, verifying scope and controlling the scope. The project scope statement, WBS and WBS dictionary defines the scope baseline. Controlling the scope process must minimize scope creep.

18. How should changes controlled?

Through the integrated change control process. Requested changes will have to be reviewed by a change control board. Only the approved changes shall be included in the document changes guiding project execution.

19. What is Work Breakdown Structure (WBD) and how does it affect the work estimates of tasks/activities?

Work breakdown structure defines the work activities required for the project and the sub activities of each of the work requirement. The breakdown goes down to levels where all the work required is clearly understood. Work need not be broken down further than that. Work
breakdown dictionary includes additional details that help define the tasks. Time and effort estimates can be accurate when everything about the work and dependencies are known.

20. **How do you define a milestone?**

Milestone is a point in project schedule when some objective, a part of a result or a part of the planned services planned are achieved.

21. **What are some techniques used for defining scope?**

Product breakdown, requirements analysis, systems engineering, systems analysis, value engineering, value analysis and alternatives analysis. Alternatives analysis can be helped by brain storming, lateral thinking and pair-wise comparisons, etc.

22. **How do project scheduling help achieve project execution?**

When the activity effort and resource estimates are known getting the work done depends on how the tasks are sequenced. Dependencies with other activities have to be clearly known. The basic sequence is determined by what activities should be carried out first and what should follow. Unconnected tasks/activities can be sequenced in parallel to reduce project time. Most optimized sequencing would give you the best possible time needed given the resources allocation is ideal and there are no constraints there. Scheduling is done from activities list prepared after WBS has been finalized.

23. **How is the “activity time” estimates done?**

Parametric estimates, three point estimates and analogous estimates are the techniques used for estimating activity time estimates.

24. **How do you estimate in the three point estimating method?**

There are 2 formulas to calculate 3 point estimation.
1) Triangular Distribution \( E = (P+M+O)/3 \);
2) Beta or PERT Distribution \( E = (P+4M+O)/6 \);

where \( P \) stands for pessimist, \( O \) for Optimist and \( M \) = most likely and

PERT = Program Evaluation and Review Techniques

25. **How in the project time schedule represented most often?**

Activity scheduling network diagram is the most common form of representation for the project time schedule. This is often accompanied by milestone chart, and bar charts.

26. **What is a critical path in schedule network diagram?**

When activity scheduling is done there will be activities whose start time and/or end times are
not critical. It may be possible, due to dependencies, to start a task later than the date on the schedule, similarly an activity could be completed later as there are no other activity waiting for its completion. These time pads are called floats. There is always a path from start to finish, which does not have any floats. Not only all the activities in the path must be carried out in planned time, but also there cannot be any delays. Any delays will directly reflect on project completion time. This chain of activities or the path from start to finish is known as the critical path.

27. What are the ways a project time schedule can be compressed?

Crashing and fast tracking are two methods of accelerating a project time schedule. Crashing method tries to optimize the schedule making use of the time floats available while keeping costs under control. Fast tracking is to make selected activities faster by applying additional resources if necessary. It may mean paying team members overtime, paying for the time of a consultant, etc.

28. What is effort variance?

It is the difference in estimated effort and the effort actually needed. Work performance is monitored periodically to find if there is any variance in efforts so that corrective actions could be taken.

29. What is EVM, earned value management?

At every monitoring point the planned value (PV), earned value (EV) and actual cost (AC) are monitored. PMB, performance measurement baseline is the aggregation of all planned values. Variances from baselines are determined and Schedule variance (SV) and cost variance (CV) are calculated. If earned value is equal to the planned value then the project is achieving what it is supposed to. If there is schedule or cost variance is significant, appropriate action needs to be taken to correct the slips. Estimate at completion (EAC) is estimated and compared with budget at completion. In case there is a slip, the cost consequences will be known.

30. What does A processes ensure?

According to a dictionary, “A is a way of systematic monitoring and evaluation of aspects of a project, service or facility to ensure that standards of quality are met”. Thus, whatever ensures products meet customer expectations are part of A efforts. Ensuring quality of everything that goes into making a product and that no mistakes are made while making it ensures quality.

31. What is quality control?

QC procedures include inspections to ensure quality requirements are being met.

32. What’s the need for process improvement plans?

A cornerstone of A is that processes are continuously improved. Process improvements help
mistakes in processes and thus help improve quality.

33. What is the tool used for arriving at improvements in processes?

GM, or the goals, questions and metrics is the method used. Goals are set, questions are asked about what improvements can be made and metrics (measurements that tell us something about the process) are carried out.

34. What are the important aspects of a HR plan for the project team?

Acquiring the team, forming the team, assigning roles & responsibilities, appraisal policies, rewards & recognition are the areas where clear cut policies should exist and be well known to team members.

35. Why is the performance management process in the HR management plan important?

People like to be recognized for their contributions. The project management team needs to recognize talent and reward and recognize the performers. The assessment should not only be fair but seen to be fair.

36. How do you determine the communication needs of stakeholders?

The communication needs of stakeholders depend on their position in the power/influence grid, power/interest grid as also impact/influence grid. Salience modeling is another technique to determine who is the most effective for the interest of the project. This is a qualitative assessment and will determine the kind and details of communications they need on the project.

37. What are the types of risks you may encounter in a project?

These could be categorized as technical, external, internal/organizational, etc. Depending on the type of projects other categories may have to be considered.

38. What is a risk register?

This is a register/document that contains all the identified risks of a project. List of actions of potential actions are also included.

39. Are there any positive aspects of the risk identification process?

The risk identification process may be able to come up with some opportunities too.

40. What is risk impact and probability?
When assessing risks the project team also tries to determine the probability of the risk actually happening and the impact it will have on the project when it does.

41. **What is the role of Isikawa/ Fishbone diagrams in determining root causes of risks?**

This is a graphical method of determining cause and effect relationships leading to a specific risk. One could then determine mitigation actions for that risk.

42. **What do you understand of Pareto (80/20) principle/analysis?**

This is a statistical analysis method that helps decide priorities between several actions to be taken. The basis is that there are about 20% action which when executed gets you 80% of the results. In QA this is used to identify the 20% of causes that create 80% of the problems.

43. **What are fixed type contracts in procurement processes?**

The seller must supply the contracted items at a fixed price determined at the time of contract.

44. **What are time & material contracts?**

In this type of contracts the contractor gets paid for time used on the project and expenses for material used and other agreed upon expenses.

45. **What is the primary purpose of procurement management plan?**

To determine what exactly is to be procured, ensure they are procured at the best price and is made available to the project team at the right time.

46. **What does procurement administrator involve?**

To keep monitoring and ensure that all open procurement contracts are progressing as expected.

47. **Why does a PM need to be very proactive?**

A PM needs to be able to see any signs of a deviation in time and/or cost to project progress as early as possible. This gives the team as much reaction time as possible to correct the situation or to minimize the impact.

48. **Forming a team, developing the team and improving knowledge are direct responsibilities of the project manager, do you agree?**

It is the team that executes the project. Thus ensuring you has right people is essential. Developing the team is important as whatever gaps are there need to be bridged. Improving self and the team knowledge is equivalent to the continuous improvement of A process and should impact the quality of the project outcome.
49. Do you think professionalism and integrity are essential qualities of a PM?

PM is charged with managing all aspects of the project. Unless he is a professional and has integrity there are many things that can go wrong. Not so truthful progress reporting will easily boomerang on the PM but the organization will have a delayed or a failed project.

50. Explain the team forming process?

After the members are collected as a project team there is a turmoil before everything settles down. This is known as the forming-storming-norming-performing process. The team people go through a storming of relationships when before settling to the role assignment. Over time they then get used to the structure of the relationship, that is the norming phase. It is only after everybody has settled into their new roles that the team starts performing.