Project Management Round Contents

1. Self Introduction

2.Technical Aspects

1. What is your Project Architecture ?
2. What are your roles and responsibilities in the project ?
3. What are the technologies you have worked on ?
4. What are the tools that are used in your projects ?
5. Which IDE you have used for the development ?
6. What are the databases you worked on ?
7. What are the server's /platform's you worked on ?
8. Which OS/environment you are working on ?
9. Have you ever been involved into Design ?
10. What is the reporting tool you are using in the Project ?

1. What is your Project Architecture ?

1. The reason behind asking this question is to check your acquaintance towards the project in which you are working . Most of the people feel difficulty in answering this question. You are experienced to explain the following this about your project like
   - Title of the project
   - Client
   - Team Size
   - Brief description about the functionally of the project .

2. specifying the above things, now you should start explaining the modules in the project and which module you are working on and you should explain the technical flow of the project.

3. If it is STRUTS application:
   You should explain the key components of it and how the request handling flow happens and how your struts components laiks to back end classes etc.

4. In a Spring based application:
   You should explain which web module you are using, various components of it, typical request flow, how you integrated your web tier components of spring with back end spring beans etc.

5. Along with the above you need to explain how you are implementing the transactionality , any secyrity related concepts etc. You should explain the database you are using , and your role towards it .

2. What are your roles and responsibilities in the project ?

1. You should not explain in-terms the types of classes you coded, most of the people when they asked this question will try to tell I coded struts action classes or I involved in writing the DAO logic etc.

2. With this you are in-directly leaving a wrong message to the interviewer stating my participation in the project is minimal.

3. Instead you should select a module's (based on the experience) and start explaining your participation in those module's like, am involved in gathering the requirements , understanding and analyzing them and involved in few design considerations as well.

4. Takes the ownership of implementing it, I was involved in handling the front-end parts of the

application as well as writing the back-end DB related ligic as well.

5. You should explain covering all the parts of your application showing your involvement towards it.

3. What are the technologies you have worked on ?

1. You should explain the technologies you worked on as well as you know.

2. You should first list out the technologies that your project is using and along with that you should describe what you know in-addition to them.

3. While answering the technologies related to your project, you should even consider the versions which you are using in your projects.

4. What are the tools that are used in your projects ?

1. This question relates to any third party tools that you are using in your project like code review tools, or profiling tools etc to improves the productivity of the project.

2. Most likely you will use tools like :
   - Visio ---- for modeling
   - PMD ----Java code review tool
   - Any browser plug-in's like Fire Bug etc to debug javascripting etc.
   - IE developer to work with javascript and CSS.

- Jdeveloper or TOAD to working with database.
  3. note: In may not be necessary to use a tool.

5. Which IDE you have used for the development ?
   1. Here you must explain him the IDE you are using for development if any other tools which you know apart from the one you are working on .
   2. Here the interviewer might ask you even the shortcuts keys of various things that you do for writing the programs.

6. What are the databases you worked on ?
   1. You need to specify the database on which your application is using .
   2. Here he might ask you questions related to database specific things like how to write the joins what is normalization and how your application is talking to database.

7. What are the server's /platform's you worked on ?
   1. Here you should possess minimum knowledge pertaining to the application server which you are using for deployment of your application .
   2. You should know the basic deployment steps of deploying the application, default administrative console , how to configure a Datasource , folders in which your application gets deployed etc.

8. Which OS/environment you are working on ?

1. Few of the security related banking and financial applications will use for remote machines like citrix servers are etc for their development rather that working on their personnel PC provided, so here the interviewer will expects you to answer the environment in which you are working along with that OS you are using for development.
2. The question is not concerned about on which Os platform you deploy in production rather it is talking about the platform on which you do development.

9. Have you ever been involved into Design ?

1. The answer to this question depends on the experience you are claiming, If you are around a 1 - 2 + years of professional it may not be relevant to say you are part of design as your involvement towards project decisions would be minimal.
2. If you are above 3+ years of experience , then you need to explain the key design you are involved in or what you worked out etc.

10.   What is the reporting tool you are using in the Project ?

1. Generally any application needs printing capabilities, generally java web based applications will produces data for printing in-terms of weg pages.

2. If you have a typical printing requirement , you need to explain which library you are using to generate reports of data.
3. Foe example Jasper reports or iText API for generating PDF's and POI API for generating excel sheets etc.

11. What is the CIS/build management tool used in you are project ?

1. In a development environment after developing the application, in order to deploy your application , you use your IDE's to compile your code and deploy.
2. But in a Testing and other environments , for every new check-in that goes into Source control , you code needs to be built to verify the sustainability of your code , so generally in they use Continuous Integration Systems or Build management tools which builds the application regularly similar to a Schedular and reports the health of your build cycle .

    Few of them are :
    Hudson ------ CIS tool
    AnthrilPro --- Build , Deploy , Test and Release tool

12. What is the volume of data against which your application runs ?

1. In general a developer will not know the production environment and the volumes of data against which your applicationworks.
2. Your technical architect should be taking these kinds of challenges and makes decision to have a particular usecase to be online or offline.
3. So, you can always I don't know the exact numbers of records my application is running on .

13.   How do you manage security like managing user credentials/data encryption etc ?

1. In general you will take care of security your application by hosting on an SSL connection rather than plain HTTP.
2. When it comes to data protection , generally the passwords that are being stored in the database will not be stored in a Plan text rather those will be converted into generally BASE16 or Base32 encoding formats and will be stored.
3. You can even explain like we use Salted password technic in storing them.
4. You can search about the salted password mechanism for more information.

14.   How do you write Unit Test Cases ?

1. You need to explain your participation of writing Unit test cases in your project.

2. Generally for writing unit test cases us using Junit and Mocking Objects to mock the HTTP or other protocol specific things.
3. You need to explain by talking atleast one of the test cases and write the code for how to work on it .

3. Nature Of Work

1. Have you ever participated in release call ?
2. Have you ever been involved into Testing ?
3. What is your Team size ?
4. What are the corporate training you have attended ?
5. Do you have experience in Production Support and what is the hierarchy in Production Support ?

1. Have you ever participated in release call ?

1. Generally once the code is development complete and fully tested to bug free, it will be moved to production environment .
2. While moving to production environment, they will try to identify the set of activities that needs to be performed as part of the release process This is called release plan , in this all the managers , technical architects , support and technical leads will generally participates in the call to monitor the progress of the process.

3. If any environment specific issue or code specific issue comes into picture , These guys will technically resolve the issue to further move into production.

Once the build and deploy is over it would be smoke tested to verify all the critical execution paths of the application is working or not ?

4. You can always either option to be in or out from this.

2. Have you ever been involved into Testing ?
   1. This question will be asked to verify the nature of duty you are handling.
   2. Always a developer will be involved in Unit Testing of his application , but beyond this never he should claim he has been involved into testing unless he wants to switch his role from developer to tester.

3. What is your Team size ?
   1. This would be a mandatory question , to verify whether you can work with in a group of people or not .
   2. Even you could be an individual contributor as well. But you score more with in a group. (max 6 , min 3 with in the limitation this is safe answer)

4. What are the corporate training you have attended ?

1. These could be the training that you underwent as part of your job and which was nominated by your manager.
2. These should not include your personnel expensed training in general.
3. These trainings could be technical as well as non-technical though.

5. Do you have experience in Production Support and what is the hierarchy in Production Support ?

   1. This question would be asked in generally for a Production Support related Job role only.
   2. Here he wanted to test your exposer to the production support environment and the SLA's and the escalations they would be dealing with.

What are the steps that are taken care when you encounter an issue ? How do you debug the issue ?

4. Leadership Qualities

1. What are the Leadership qualities ?
2. How do you handle non-productive team members ?

1. Explain Leadership Qualities

Tell and explain to us about a specific situation during the project where we have to cope with a less experienced candidate in your team and what are the measures you to meet your deadlines ?

OR

You have been assigned as the Team Lead for a team comprised of new employees just out of college and "entry-level" consulting staff. What steps can you take to insure that the project is completed against a very tight time deadlines ?

OR

Your project is beginning to exceed budget and to fall behind schedule due to almost daily user change orders and increasing conflicts in user requirements.
As a senior developer , how will you address the user issues ?

1. If you opted for a Technical or a Team lead this is to test your team handling skills.

2. In general to handle a team under stringent deadlines,you should say we follow the process and to verify whether we are meeting the deadlines we will have regular checkpoint meetings.

3. We will have an MPP plan to measure and track the progress of the project, along with that owner ship would be assigned persons by identifying aggressive persons in the team.

4. We would be monitoring across various stages of the project from requirement gather till Unit Testing. Whether the design documents are in place and has the Implementation phase has been started or not

5. We will come up with estimates identifying the key components of the application and track to ensure we are meeting the estimates.

6. Code reviews would be done for every component that is ready to completion.

7. Will use automation tools to increase the productivity like Hibernate reverse engineering tools or SQL Jdeveloper to work with databases or PMD code review tools etc.

8. Will ask the team members to perform Unit testing once there are done with development and verify them against tracebility matrix.

9. All the changes to the requirements would be monitored closely and will have a change management and approval process would be

placed to accept any future changes to the requirements.

2. How do you handle non-productive team members ?

   1. Will try to monitor the resources closely, will try to have a regular discussions with them to identify their strengths and weakness.
   2. Will motivate them by encouraging them on the work they have done.
   3. Will identify their technical challenges and nominate for training.

5. Behavioral And Commitment Aspects:

1. Tell us some of your extraordinary skills which place you in the leading position over the other technical associates ?
2. What were the criticism/difficulties you got during your projects, how did you handle it and what are the measures you took to avoid repetition of the same ?

Tell us some of your extraordinary skills which place you in the leading position over the other technical associates ?

1. You can make any situation favor to you like, you have handle certain module of your application or you are involved into critical design of a module etc.
2. You can say even challenges related to technologies as well like we are moving from struts to spring and it is a Phase wise and we need to move our entire existing logic in struts framework towards spring.
3. I was identified as a key actor in owning this migration and towards its successfully delivery.
4. I identified the migration plan and compared struts with spring and analyzed what are all the changes that we might need to make in porting the application from struts to spring.
5. Guided rest of the team members and ensure the correctness of the delivery etc.

What were the criticism/difficulties you got during your projects, how did you handle it and what are the measures you took to avoid repetition of the same ?

It's better if you avoid taking up such kind of questions by replying I haven't encountered any...

Source Control Management

1. What is SCM Tool ?
2. What are the measures you take to ensure there are minimal code conflicts with other peers in the team ?
3. If your working on parallel releases how do you manage your code ?

1. What is SCM Tool ?

1. This is the tool which acts as a central repository where all the developer's code will go stored permanently to avoid any loss of local code.
2. The backups would be done on the code that would be checked-in to the central repository to avoid any losses further from there.
3. Developer will pull the code from the repository , work on this local copy and pushes back to the central repository to see the charges he made to others , this process is called checked-in and check-out.

2. What are the measures you take to ensure there are minimal code conflicts with other peers in the team ?

1. In order to avoid conflicts with in each code line , we have a proper plan in place.
2. Every developer has to check-in only the compiled code for Build Management process to run smooth.

3. Every day when he starts coding he needs to update his code to syncronized with source control system branch , so that he will be updated with the changes that are done with the central copy.

3. If your working on parallel releases how do you manage your code ?

1. When we are working on parallel release one will be identified as a main branch which will be released slightly after than the current release. And the second one is the immediate release.

2. All the check-ins that are done in the immediate release branch must also should be ported to the future release MAIN branch so that your changes would be ensured to go in future releases as well.

7. Process Oriented

1. What is the difference phases in delivering the project during development and during maintenance ?

2. How do you perform unit testing and make sure you covered all the aspects of your code ?

3. What is the document that should be consulted to know about your project , the activities you do, to know about your project ?

4. How do you come up with estimates for a requirement ?

1. **What are the different phases in delivering the project during development and during maintenance ?**
   1. This question relates to the process model you choose in developing your application , you need to explain him the life cycle model of the project and various stages involved in it.

2. **How do you perform unit testing and make sure you covered all the aspects of your code ?**
   1. Before starting the unit testing , every developer based on the UseCase he should identify all the alternative paths , critical paths of a test case and should draft them in a Tracebility matrix.
   2. In this matrix he will trace all the critical flow of the application has been covered to its fullest or not .

3. **What is the document that should be consulted to know about your project , the activities you do, to know about your project ?**
   1. Requirements Phase----High level Requirement document/ Business Requirement document
      Analysis Phase----------Usecase and Analysis document
      Design Phase----High level design pattern and Detailed design document
      Unit Testing----Test case document describing the unit testing flows and Tracebility matrix

4. How do you come up with estimates for a requirement ?

1. We will identify the components of the application into three categories based on their complexity.
2. And we use estimation document where we will feed in the no of critical , moderate and normal components in that document will calculate the estimates.