**Question 1:**

I suggest choosing WATERFALL methodology, because:

-Requirement characteristic:

+Reliability: The requirements are quite clearly, all requirements have high reliability

+Type of requirement: The requirements contain both non-functional and functional requirements, the requirements are clear and not ambiguous

Functional requirement:

Goal setting: The system should allow managers and employees to set performance goal and track progress

Feedback: The system should allow managers to provide feedback on employees performance and employees to give feedback on their performance

Metrics: The system should track metrics relevant to employee performance, such as sale target, customer satisfaction, or project completion rate

Performance evaluations: The system should allow managers to conduct formal performance evaluation and provide rating or score based on their employee’s performance

Competency assessment: The system should allow manager to assess employee competencies, such as technical skill, communicate skill, or leadership abilities

Development plans: The system should allow managers and employees to create development plans based on areas for improvement identified through performance monitoring

Non-functional requirement:

The system should maintain employee privacy by ensuring that only authorized individuals can access employee performance data

The module should be able to handle a growing number of user and task without degrading performance or reliability

+ How often the requirements can change: The requirements are clearly, they defined the requirement very well so requirement rarely to change

+Can the requirements be defined at an early stage: The requirements are clear enough, pre-defined. Beside the organization had contracted with a local company to provide additional resources when need help the requirement more clearly so that requirement be defined at early stage

-Development team:

+Team size: Average, include 1 team leader, 6 developers and 2 QA

+Level of understanding of user requirements by the developers: Average, the requirements are clear and easy to understand. The team have 6 developers so they have a little experience in the develop software so they can understand to requirement. In addition, the organization had contracted with a local company to provide additional resources when need help the requirement more clearly

- User involvement in the project: Small, although the the organization had contracted with a local company to provide additional resources but the local company only provide additional resources when organization need but the requirements are very clearly for each role so they do not need to much

=>The software development methodology I suggest in this situation is WATERFALL. The requirement is clearly and can pre-defined, easy to undertanding. Moreover, the team have support from local company to provide additional resources to help the requirement more clearly so I think Waterfall methodology is suitable in this situation

**Question 2:**

-4 functional requirement:

+Goal setting: The system should allow managers and employees to set performance goal and track progress

+Feedback: The system should allow managers to provide feedback on employees performance and employees to give feedback on their performance

+Performance evaluations: The system should allow managers to conduct formal performance evaluation and provide rating or score based on their employee’s performance

+Development plans: The system should allow managers and employees to create development plans based on areas for improvement identified through performance monitoring

-2 non-functional requirement:

+The system should maintain employee privacy by ensuring that only authorized individuals can access employee performance data

+The module should be able to handle a growing number of user and task without degrading performance or reliability

**Question 3:**

-2 user story based on question 2:

+As a manager, I want to provide feedback on employees performance, so that I can tell to the employees their advantage and disadvantage to help them improve performance

+As a manager, I want to conduct formal performance evaluation and provide rating or score based on employee performance, so that I can classify the employees have high performance and low performance

**Question 6:**

I suggest functional requirement testing in this project. Because the requirements are very clearly, pre-defined and easy to understand. In addition, the team size is average, so functional requirement testing is suitable with less time and easier. Fourthly, functional requirement testing allows testers to be non-technical and testers do not need to have detailed knowledge of the system's functionality

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Employee |  |  |  |  | Manager |  |
| Goal setting |  | Development plan |  | Give feedback | Feedback |  |
| Log in to the system | Set performance goal | Create the plan | Modify plan | View the feedback | Input and send feedback | View summited feedback |
| Enter username, password | Give notification when set goal successfully | View the detail plan | Delete plan | View detail the feedback | Send message to the employee | List all summited feedback |
| Scan QR to login | Monitor the goal by day, by month |  | Insert information to the plan | Send message to the manager if the feedback not satisfied |  | Edit feedback |

**Question 4:** User story map for user experience:

**Question 5:**

-3 assumption regarding the competency assessment:

+The system allow manager assess more information of employee beside technical skill, communication skill, leadership abilities. The assumption is high impact if wrong, high probability of it being wrong because some information of employees they do not want to show but show for manager, it not good

+The technical skill, communication skill, leadership abilities of employee can incorrectly. The assumption is high impact if wrong, high probability of it being wrong because the employees can show the skill is good but they really not good so that it can affect to the performance of employee and company. In addition, employee usually not confident so that they have high probability to show the skill is not for them

+ The system respond low when the manager access many employees competencies at the same time. The assumption is low impact if wrong, high probability of it being wrong because the action assess many employees can show usually so that the probability is high but low impact because it can impact a little to the efficient of company and they can to improve the system