PRM – TUT 2

Activity 2:

1. Look at waterfall, iterative, incremental lifecycles. Discuss:

a. The advantages and disadvantages of each different model

b.ombinations are useful?

Answer:

Waterfall:

What techniques are used in each stage?

c. What sort of projects are they useful for?

***d. Which c*+Advantges:**

-Waterfall model is easy to use and understand.

-Development processes go one-by-one.

-It is easy to determine the key points of each development life cycle.

-Best suited for small and medium sized project.

-Follow simple management process due to the inflexibility.

+Disadvantages:

-After the completion of last phase, the software will be ready to use.

-High risk and uncertainty.

-Not suited for large or complex projects

- Progress of the development is difficult to measure or evaluate.

+Used techniques:

-Requirements

-Design

-Implementation

-Testing

-Deployment

-Maintenance

+Suitable projects:

-Works well for small projects where requirements are very well understood.

-Well defined and properly documented requirements Absence of dubious

or ambiguous requirements

-The project needs to be completed in a short time

-Product requirements are feasible Availability of sufficient resources & skills to carry out the process

Iteractive

+Advantages:

-Some working function can be quickly and early developed

-The parallel development can be applied

-The progress is easily measurable

-Testing and debugging during smaller iteration are easy

-Risks are easily controllable

-Problems defined within one iteration can be prevented in the next sprints

-It gets flexibility and readiness to the changes in the requirements

+Disadvantages:

-More resources may be required

-Constant management requires with strike surveillance

-Issues can occur during the designing stage

-It is not suitable for small projects

-The whole process gets too hectic sometimes and difficult to manage

-The risks may not be completely determined even at the final stage of the project

-Highly-qualified resources are required for skill analysis

+Used techniques:

-Planning & Requirements

-Analysis & Design

-Implementation

-Testing

-Evaluation

+Suitable projects:

-The requirements to the final product are strictly predefined

-Applied to the large- scale projects

-The main task is predefined, but the details may advance with the time

Incremental

+Advantages:

-The software will be generated quickly and early during the software life cycle

-More flexible – less costly to change requirements and scope

-Easier to test and debug during a smaller iteration

-Easier to manage risk

-Each iteration is an easily managed milestone

-Lowers initial delivery cost

-Throughout the development stages changes can be done

-A customer can respond to each building

-Errors are easy to be identified

+Disadvantages:

-Good planning and design are required

-Total cost is not lower

-Each iteration phase is rigid and does not overlap each other

-Problems may arise pertaining to system architecture

-Well defined module interfaces are required

-Rectifying a problem in one unit requires correction in all the units and consumes a lot of time

+Used techniques:

-Requirements

-Design & Development

-Testing

-Implementation

+Suitable projects:

-Requirements of the system are clearly defined and understood

-When demand for an early release of a product arises

-When resources are not very well-skilled

-High-risk features and goals are involved

-More in use for web application and product-based company

-Projects with new Technology

2. What does it mean to take a "systems view" of a project? Why is it important to take such a view of a project in project management?

Answer:

Taking a systems view means looking at the big picture of how a particular project fits into the rest of the organization. It is important for project managers to understand the broader organizational environment to ensure their projects meet organizational needs by considering different factors of a problem (a system) and how they might affect that system. Project Management can be very much in line with a systems thinking approach. You look at the dependencies and evaluate how they affect your project over time.

3. List the four frames of organization. Give a possible scenario to show how a project manager (with an understanding of the four frames) will have a better chance of succeeding in the project he or she manages.

Answer:

The four frames of organization are:

- Structural: mainly a task-orientated frame, focuses on the architecture of the organization. This includes goals, structure, technology, roles and relationships as well as coordination of them. Organizational charts help describe this frame. The metaphor for the structural frame: factory or machine.

- Human Resources: emphasizes meeting the needs of the organization and its people as well as their relationship. By attending to people, the focus of this frame, the organization can meet individual needs and train the individual to meet organizational needs. The metaphor for the human resource frame: family.

- Political: addresses the problem of individuals and interest groups having sometimes conflicting (often hidden) agendas. In this frame, conflict resolution work and power - base building are key issues. Many project managers are failing because they do not understand the political environment. The metaphor for the political frame: jungle.

- Symbolic: focus on symbol and meanings related to events. Rules, policies, and managerial authority matter less in this frame; but instead, culture, symbols, and spirit provide this frame's pathway to organizational effectiveness. The metaphor for the symbolic frame: theatre, temple, or carnival.

4. Describe how organizational culture is related to project management. Based on your research, provide an URL that points to an article that talks about how organization culture can affect the success of a project.

Answer:

In every company, project management happens within the much larger context of the company's organizational culture. Having a good understanding of this broader context can help to keep the work of project management in synch with the objectives of the organization, and aligned with already-established practices. Often discredited, we underestimate how corporate culture can affect a project's progress – for better or worse.

Even within similar industries, there are often differences in the way that companies treat the life cycle of a project, documentation, resources, etc. that stem from differences in corporate culture. There is no one type of organizational culture that's better or more productive than the rest. They are simply different, and these differences have an impact on project managers.

An URL that points to an article that talks about how organizational culture can affect the success of a project: *https://www.pmi.org/learning/library/meaning-importance-culture-project-success-7361*

5. Explain the differences between functional, matrix, and project organizations. If you are a program manager with Microsoft, which structure would you use in the development of Microsoft's Windows Operating System?

Answer:

- A functional organization is a classical hierarchy where each employee has one clear superior. Employees are then organized by specialty such as engineering, manufacturing, information technology and so on as well as work accomplished is generally specific to that specialty. Each department in a functional organization would be managed by a functional manager to do its project work independently of the other. Functional managers report to CEO. The project manager lacks the authority to assign resources and must acquire people and other resources from multiple functional managers.

- A matrix organization, a blended organizational structure, represents the middle ground between functional and project structure. Personnel often report to two or more bosses. Matrix organizations can be classified as weak, balanced, and strong matrix organizations depending on the relative level of power and influence between functional and project managers. Although the balanced matrix organization recognizes the need for a project manager, it does not provide the project manager with the full authority over the project and project funding.

- In a project organization, team members are often co-located and resources are brought together specifically for the purpose of a project. Most of the organization's resources are involved in project work, and project managers who have a great deal of independence and authority would report to CEO. Projectized organizations often have organizational units called departments, but they can either report directly to the project manager or provide support services to the various projects. In short, project managers have the most authority in project organization structures.

→ If I were a program manager with Microsoft, I would use the matrix organization in the development of Microsoft's Windows Operating System. Firstly, highly skilled and resources may be shared across projects, reducing the cost and increasing the efficiency, which can significantly reduce the problem of redundant staff. Secondly, a matrix structure provides a good environment for employees to enhance their skills and knowledge by taking part in different projects. Finally, project is the focus of work, so a formal designated project manager will pay more attention to the project, and be responsible for the coordination and integration work between different units.