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Module 1 – Topic - Project management methodology

A. Introduction to Project Management

Fill in the blank spaces to complete the paragraph below

Project Management requires the organization of three things: **(1)**…………… , **(2)**…………… and **(3)**…………… . Project managers are concerned with how to get a particular job done. The jobs, or projects, coordinated by project managers have set activities that are required to meet stated **(4)**…………… . The first documented Project Management techniques were in the early 1900s with the development of the **(5)**…………… chart method. The principles of Project Management were refined further in the 1950s with the development of the **(6)**…………… Path Method (CPM) and the Program **(7)**…………… and **(8)**…………… Technique (PERT).

B. The Phases of Project Management

Fill in the blank spaces to complete the paragraph below

Project management is characterised by four specific stages. These distinct steps are: (1)……………, Planning and **(2)**……………, **(3)**…………… and, lastly, Monitoring and **(4)**…………… . During the Investigation phase the initial **(5)**…………… of the project takes place and goals and **(6)** …………… are identified. At the end of this phase a project **(7)** …………… is given to the project team or project manager. During the Planning and Design phase milestones and key time markers are identified to keep the project on **(8)** …………… . It is also important during this phase to break the project into tasks or activities and to define the **(9)**……………of each. The Production phase should provide a **(10)**…………… project, ready to be 'handed over' to clients. In the final phase of Project Management, the Evaluation and Monitoring phase, the **(11)**…………… of the project is assessed. The project is assessed based on **(12)** ……………and **(13)** ……………factors.

C. Project Management Methodology questions

Write down the answers to the following questions - see if they are similar to the answers given in the Test your Understanding Answers pdf in the resources section

1. What is the role of a Project Manager?

2. Why are project management techniques used by organisations?

3. When were the first project management techniques documented?

4. Project management methodology has four distinct phases. What are they?

5. What does Phase 1, the Investigation phase of project management, involve? Who undertakes this phase?

6. List four steps in Phase 2, the Planning and Design Phase of project management.

7. What does Phase 3, the Production Phase of **project management involve?**

8. **In the Evaluation and Monitoring phase of project** management what questions might a Project Manager address?

Module 1 – Topic - Project management tools

A.   Project Management Tools

Fill in the blank spaces to complete the paragraph below

A GANTT chart displays tasks along a **(1)** ……………….. time scale. GANTT charts should show the best possible way to complete the task in the **(2)** ……………….. time. Activities can be done in **(3)** ……………….. or sequentially, and the GANTT chart shows this clearly. PERT diagrams or critical path networks, on the other hand, use a graphical form to show relationships between **(4)** ……………….. and **(5)** …………………. . On a PERT diagram network **(6)**……………….. show the interdependence of events and the **(7)** ……………….. path is used to show the sequence of events that have the sum of the longest duration. To allow for uncertainty when organizations are estimating activity times, three estimates are provided, the **(8)** ……………….. time, the most **(9)** ……………….. time and the **(10)**……………….. time.

B.   Exercise

Try to create a GANTT chart using a spreadsheet or a free online project management tool.

You and a group of three friends are planning the end of year party for your colleagues. Construct a GANTT chart for this. Be sure to consider events that could occur simultaneously as well as dependent events, i.e. those that must be done before others start. Estimate the time for each event.

Module 1 – Topic - Project management Documentation

A. Documentation

Fill in the blank spaces to complete the paragraph below

Documentation is essential for the success of any **(1)** ………….. system. It helps those that interact with the system by providing **(2)** ………….. or acting as a reference. Documentation **(3)** ………….. all the details that will help current developers and users plus any futures ones. The software product should be fully supported with technical documentation so that any programmer in the future can understand the process and the **(4)** ………….. that was developed.

(5)………….. documentation involves developing and documenting all the process of system development and includes such things as data dictionaries, data flow diagrams and all other design documentation that occur throughout development. All equipment will be logged and all the technical parts of the system must be documented for future reference, this would include things like a network **(6)** ……………… .

(7) …………..documentation involves developing a set of **(8)** …………..that assist the user to use the system, software or hardware being implemented. It would usually include items such as **(9)** ………….. manuals, **(10)** ………….. guides, **(11)** ………….. cards, frequently asked questions, etc.

(12) ………….. based documentation is the traditional form of user documentation.
(13) ………….. manuals are the most common form of paper based documentation as they go through, in simple steps, the tasks that the end user would perform on a daily basis. However, over the last few years, **(14)** ………….. documentation has become a popular way to give employees and/or end users the help and assistance they require.

When documenting processes it is important to identify the each user's documentation requirements. Users are normally categorised by their level of knowledge into one of three groups: **(15)** ………….., **(16)**………….. and **(17)** ………….. . Users can also be categorized by their level of involvement with the system into the following four groups: expert, specialists, **(18)** ………….. and **(19)** ……………

B. Questions

1. Why is documentation essential to the success of any information system?
2. Explain at least three types of documentation.

C. Fill in the documentation chart

User	Documentation required by the user
Novice	
Intermediate	
Expert	

User	Define this user group and give an example of an employee with this level of involvement with the system
Experts	
Specialists	
Adjunct	
Incidentals	

Module 2 – Topic - System Development Life Cycle

    A.   A. System Development Life Cycle

A. The Planning Phase

In order to define the scope of a project and to identify potential problem areas the development of any computer based information system must be carefully **(1)**…………… The planning phase normally follows a sequence of steps including recognising the **(2)**……………. , setting project **(3)**……………. , conducting **(4)**……………   studies and establishing control mechanisms.

B. The Analysis Phase

During the Analysis Phase of the SDLC existing systems are studied with the aim of designing a new or improved system. Steps involved in this phase include **(1)**……………….. the project, creating a **(2)**……………….. team, defining **(3)**……………….. needs, defining system **(4)**………………..criteria and creating a design **(5)**………………… . At the conclusion of this phase a decision must be made as to whether or not the project will **(6)**………………..

C. The Design Phase

During the design phase the **(1)**……………. and **(2)**……………. required by the new system are defined. During this phase it is important that a number of different **(3)**……………….. are investigated to ensure that the most efficient and effective **(4)**……………….. is adopted. Part of the design phase involves preparing an **(5)**……………….. proposal.

D. The Implementation Phase

In the implementation phase physical and conceptual **(1)**……………….. required for the project are obtained. Some of the steps in this phase include preparing the **(2)**……………….. facilities, **(3)** ……………….. the users/participants and **(4)**……………….. over to the new system.

E. The Use/Evaluation Phase

Once the system has been **(1)**……………….. the final phase in the project is the Use/Evaluation phase. During this phase the system should be in full use and meeting the **(2)**……………….. that were set during the **(3)**……………….. phase. This phase has a number of steps including using the **(4)** ……………….. , auditing the system, and re-engineering
(5) ………………… .

Test your Understanding – The Questions

B. System Development Life Cycle Questions

Q1. List the five phases of the SDLC.

Q2. Make a flow chart showing the sequence of steps in the Planning Phase of the SDLC.

Q3. During the Analysis Phase of the SDLC what must be identified in order to document what the current system does and to highlight the strengths and deficiencies in it?

Q4. You are a manager in a company and are implanting a new information system. Who might you consult in order to perform an analysis of the current information system?

Q5. In a top down approach to system design, the programmer will start by identifying the output that the system will need to produce. Why is it important to start the system development with the design of the output?

Q6. During the Design Phase of the SDLC what factors should a programmer consider when designing the input for the proposed information system?

Q7. Implementing an information system can significantly affect the productivity and morale of employees. What steps might a company take to make this process as smooth and stress-free as possible?

Q8. There are a number of methods for 'cutting' over to a new information system. Describe the various options and the benefits of each.

Q9. Computer based information systems need maintenance. What might this involve?