

MASTER OF SCIENCE IN INFORMATION TECHNOLOGY

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SCT321-C004-2079/2018

MIT3105 IT PROJECT MANAGEMENT: ASSIGNMENT 1&2

Assignment One

You as a project manager has identified the below activities and durations for a project you are undertaking.

Activity	Duration (Weeks)
Requirement gathering and website specification on functionality	2
Web site design	1
Database design	2
Implementation and programming	3
Security and functionality Testing	1
Deployment	1
Training of Administrators and Users	2
Total	12 Weeks

Required:

- a) **Propose the activity sequence (precedence) for this project. Justify your choice.**

Activity	Activity description	Duration (Weeks)	Precedents
A	Requirement gathering and website specification on functionality	2	-
B	Web site design	1	A
C	Database design	2	A
D	Implementation and programming	3	B,C
E	Security and functionality Testing	1	D
F	Deployment	1	E
G	Training of Administrators and Users	2	F
	Total	12 Weeks	

Justification

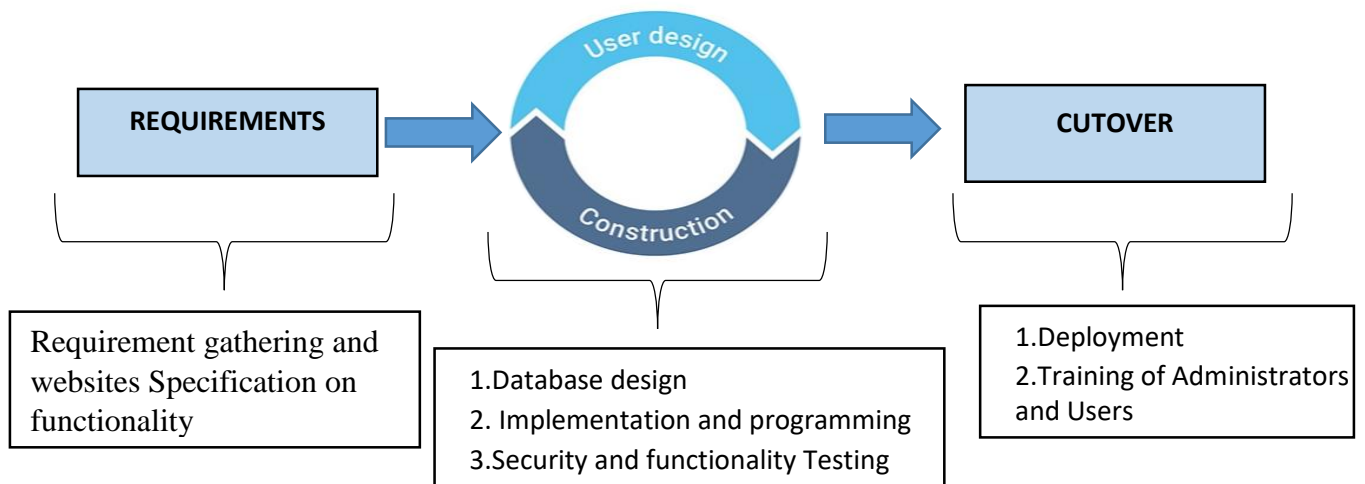
The initial activity is the (A) - requirement gathering and website specification on functionality as it gives the basis on what to be done, what is expected at the end of the project, thus it being a precedent for the upcoming activities for the project.

Web design (B) should start immediately after requirement gathering and website specification on functionality as it builds on it. At this stage Database design (C) can run together as they rely on activity (A) success/completion.

Implementation and programming (D) can begin on the completion of database design (C) to allow iteration for any handles arising on the implementation which may arise due to scalability of the database during implementation as its result alters the database design.

Security and functionality Testing (E) activity should start after the completion of activity (D). This is attributed to the nature of the activity as its success depends on how well and successful activity (D) was. Activity (F) Deployment and (G) Training of Administrators and Users follows respectively and they cannot run concurrently and one has to end or be at a position where the other can execute.

For the development methodology, **Rapid Application Development (RAD)** would be suitable for this project, as it's a condensed development process that produces a high-quality system with low investment costs. The rapid application development method contains four phases: requirements planning, user design, construction, and cutover. The user design and construction phases repeat until the user confirms that the product meets all requirements.

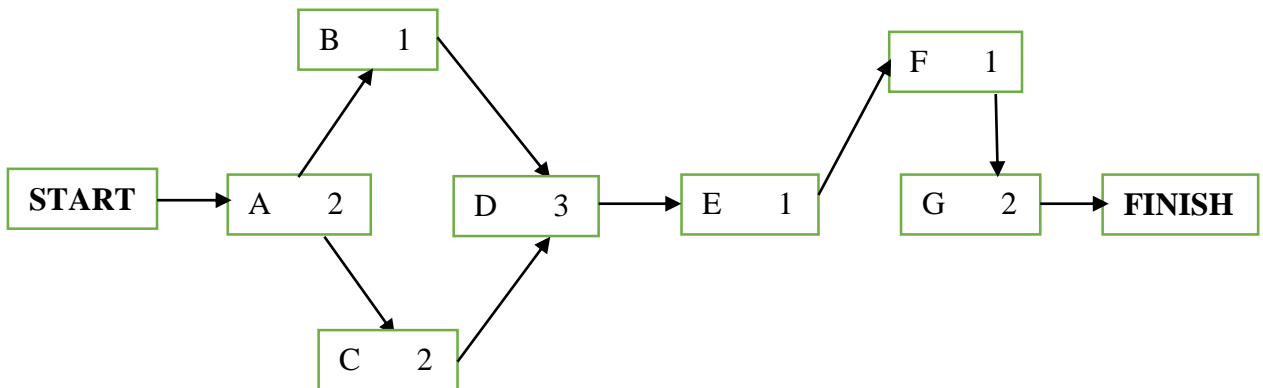


b) Draw a Gantt chart for this project (on paper).

Gantt chart is a visual representation of the project activities and their duration. The chart has two axis, vertical and horizontal. The vertical axis represents the activities, while the horizontal axis represents the duration, as shown below

	WEEKS											
ACTIVITY	1	2	3	4	5	6	7	8	9	10	11	12
A												
B												
C												
D												
E												
F												
G												

c) Draw an activity on node diagram for this project (on paper).



Activity on node diagram is a network analysis diagram where the arrow represents the event and the node represents the activity

Assignment Two

A company is experiencing a drastic reduction in failed projects. Discuss four possible reasons for this.

There are different ways of reducing project failure and which in turn help in handling troubled projects. For a company to experience drastic reduction in failed project, it has to plan, execute and action well.

Project success is often attributed to the project managers, and to overcome project failure, there is need to adopt efficient and effective methods for the project execution. The following are some of the ways of reducing project failure;

1. Plan Project's Strategy and Project's Implementation

Planning is the most important stage of all the projects, and proper attention is not given during this stage. Planning outlines how one is going to work on the project and how to implement the project. What will be the strategy and how project the project is going to be executed? This is all needed to plan to avoid project failure. If a proper planning is done, then it will increase the project's success probability. Once the project's planning is completed, then the execution of the project using Project Management Life Cycle starts.

2. Managing the Project Goals

To manage project scope then the project manager should not try to control it. Never rely on understanding, verbal agreements and on memory for any of the decisions taken for project implementation. The project manager should document the decisions, actions and the results of the project before starting the project, during the project and after the project implementation. It is always necessary to ensure the project deliverables and work properly with the customer requirements to avoid project failure.

3. Track Project's Progress

Tracking project's progress is done by considering two things, first is where the project should be and secondly, where actually it is at a certain point in time. So, to control the project, the first thing is to have a plan. The planning of a project will help determine where the project

should be at this moment. The second thing is to find out where the project should be at any given time. For this, should help how much work is done, whether the work is on schedule, whether it is going as per the planning, among other check points. So, to find accurately about the progress of the project, the project manager should consider all the three factors. These are schedule, scope, and the cost incurred. These are the three parameters that control any project and play an important role to overcome project failure.

4. Identify Risk Factors

The risk is something that cannot be avoided and will certainly happen. So, the best thing a project manager can do to avoid risk is to identify, analyze and respond to the risk factors. So, risks are identified and the potential issues at the starting stages of the project, the project team can avoid these risks with appropriate actions. Identifying and resolving risk factors will help the project manager to reduce the chances of project failure. Thus, in this way one can do proper risk management and can avoid project failure.

5. Use Correct Methodology

Selection of Project Management methodology is one of the important decisions that one must take as a project manager. What a project manager chooses, will impose an intense impact on the teamwork. But, these methodologies have their own advantages and disadvantages depending on project type and project scope. Here are some examples of top project management methodologies.

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|--------------------------------------|----------------------------------|
| 1) Waterfall method | 5) Integrated Project Management |
| 2) Agile/Scrum | Technique |
| 3) Hybrid approach | 6) Critical Path Method (CPM) |
| 4) Critical Chain Project Management | |

All the project management methodologies can't be considered best for a project. So, understand the project requirements and choose the one that is best suitable for your project. The selection of correct methodology will help you reach the project goal within the given time period avoiding project failure.