Shivanshu S S

TE B 22

Experiment 7: Use project management tool to prepare schedule for the project.

Learning Objective: Students will able to list the various activities in the project, analyze the various activities for schedule, estimate the time for each activity and develop a Gantt chart for the activities.

Tools: Gantt Chart using MS Excel

Theory:

Project-task scheduling is a significant project planning activity. It comprises deciding which functions would be taken up when. To schedule the project plan, a software project manager wants to do the following:

1. Identify all the functions required to complete the project.
2. Break down large functions into small activities.
3. Determine the dependency among various activities.
4. Establish the most likely size for the time duration required to complete the activities.
5. Allocate resources to activities.
6. Plan the beginning and ending dates for different activities.
7. Determine the critical path. A critical way is the group of activities that decide the duration of the project.

Program Evaluation and Review Technique (PERT) and Gantt chart are two project scheduling methods that can be applied to software development.

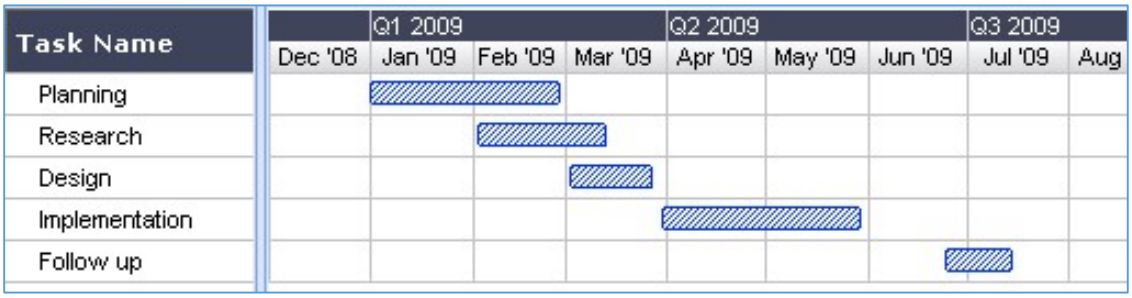
In order to develop our schedule, we first need to define the activities, sequence them in the right order, estimate the resources needed, and estimate the time it will take to complete the tasks.

Gantt chart:

A Gantt chart, commonly used in project management, is one of the most popular and useful ways of showing activities (tasks or events) displayed against time. On the left of the chart is a list of the activities and along the top is a suitable time scale. Each activity is represented by a bar; the

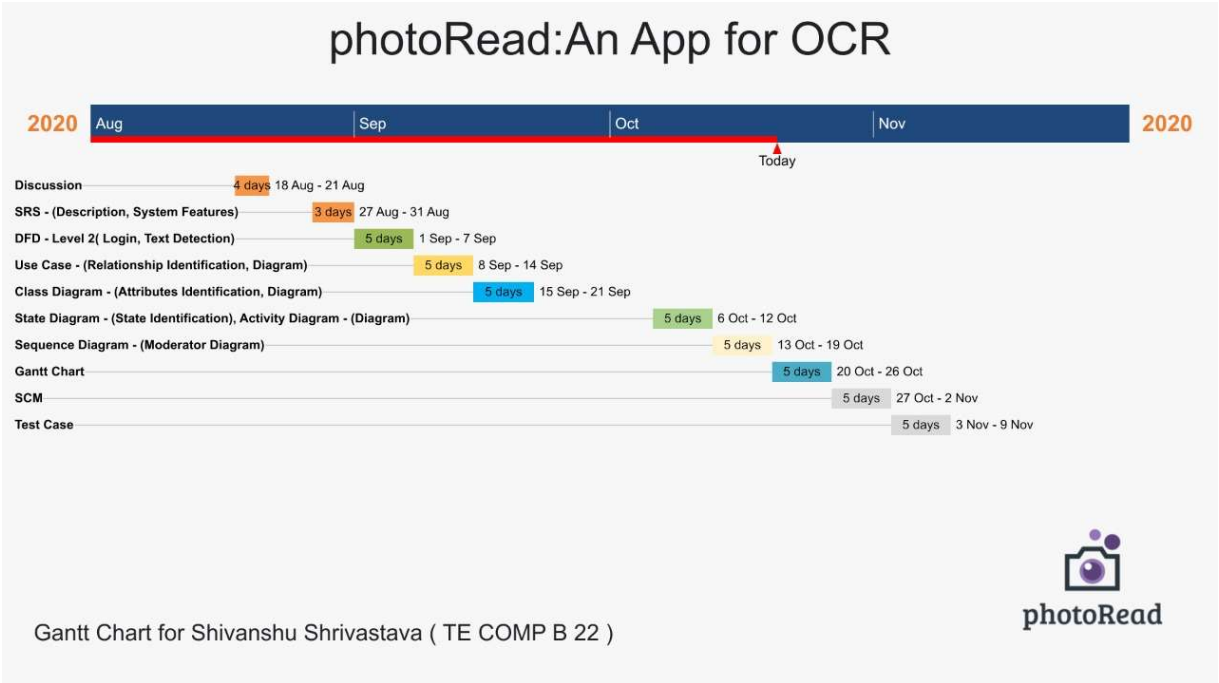
position and length of the bar reflects the start date, duration and end date of the activity. This allows you to see at a glance:

- What the various activities are
- When each activity begins and ends
- How long each activity is scheduled to last
- Where activities overlap with other activities, and by how much
- The start and end date of the whole project



Results and Discussion:

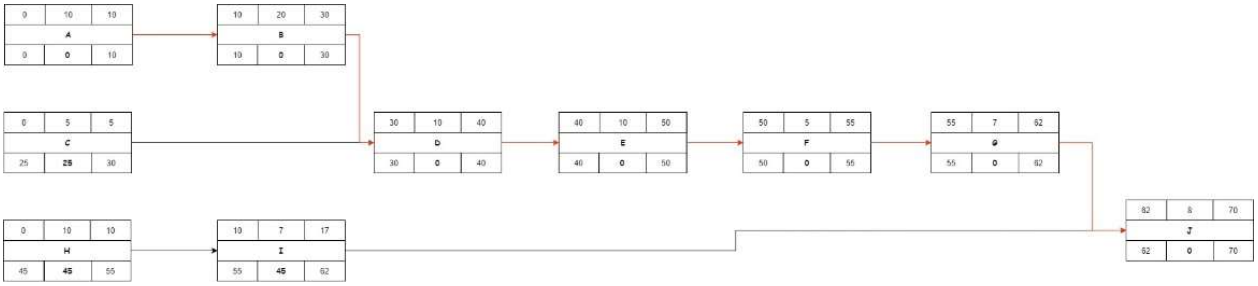
Gantt chart for mini-project:



Sr No.	Activity	Time (days)	Dependency
A	Dataset Loading	10	-
B	Dataset Pre-processing	20	A
C	Model Selection	5	-
D	Generation	10	B,C
E	Training	10	D
F	Testing	5	E
G	Hyperparameter Tuning	7	F
H	App Creation	10	-
I	App Testing	7	H
J	Deployment	8	G,I

photoRead:An App for OCR

Project Implementation



Learning Outcomes: Students should have the ability to

LO1: List the various activities in the project.
LO2: Analyze the various activities for schedule.
LO3: Estimate the time for each activity.
LO4: Develop a Gantt chart for the activities.

Outcomes: Upon completion of the course students will be able to use project management tool to prepare schedule for the project.

Conclusion:

1) Concepts related to Project Task Scheduling and Tracking, were introduced.
2) Gantt Chart construction for Project Scheduling, was introduced.
3) In this experiment, activities related to our mini project "photoRead: An App for OCR", were identified.
4) Each activity was identified along with it's Duration and its dependencies. Consequently, a Scheduling/Activity Diagram was constructed and Critical Path was identified.
5) In this experiment, Gantt Charts for our mini project "phtotoRead: An App for OCR", were constructed, evaluated and archived.

Viva Questions:

1. How do Gantt chart and PERT chart differ from each other?
2. Why project scheduling is required?
3. What are some of the reasons due to which project may be delayed?

For Faculty Use

Correction Parameters	Formative Assessment [40%]	Timely completion of Practical [40%]	Attendance / Learning Attitude [20%]	
Marks Obtained				