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Aim	To make a Gantt chart, Critical Path and calculate Slack Time for Food Delivery System
Theory	What is a Gantt Chart? A Gantt chart is a horizontal bar chart developed as a production control tool in 1917 by Henry L. Gantt, an American engineer and social scientist. Frequently used in project management, a Gantt chart provides a graphical illustration of a schedule that can be used to plan, coordinate and track tasks in a project. What are Gantt charts used for? Gantt charts are one of the many project management tools. They present in one chart all the tasks in a project. They show the order in which they tasks should be done and the time needed to complete them. This is valuable information to have when managing projects for the following reasons: ● Progress monitoring. Project managers can see if individual tasks are completed on time and adjust the project schedule. The charts also show which goals were met on schedule, helping managers gauge employee productivity. ● Project planning. Managers can set deadlines, milestones and schedules for various project components. ● Resource management. Project planners can coordinate

	resource allocation with the project schedule. Managers can see the amount of time each process takes and designates resources accordingly. Both the Waterfall and Agile project management methodologies make use of Gantt charts. Because they display project information linearly, they work particularly well with Waterfall, where customer expectations are collected at the beginning of a project, and a linear plan is devised to meet them. Project teams using the Agile approach set their own goals and use continuous customer feedback to update their plan in real time. Gantt charts can be useful in Agile to compare an old plan to a proposed change and to see what effect the change has on the overall plan. How to build a Gantt chart? A Gantt chart is constructed with a horizontal axis representing the total time span of the project, broken down into increments -- days, weeks or months. It has a vertical axis representing the project tasks. For example, if the project is choosing new HR software, major tasks might be: conduct research, choose software and install software.Horizontal bars of varying lengths represent the sequences, timing, and time span for each task. Using the same example, put "conduct research" at the top of the vertical axis and draw a bar on the graph that represents the amount of time anticipated for the research, then enter the other tasks below the first one with representative bars at the points in time when they'll be undertaken.

Solution

Critical Path	Subtask	Completion time	Start time	Time to complete	Dependencies (Predecessor)
*	1 Collect all requirements	7,7	0,0	7	–
*	2 Group related requirements	9,9	7,7	2	1
*	3 Prioritize requirements	11,11	9,9	2	2
*	4 Finalize requirements	13,13	11,11	2	3
	5 Architecture design	16,21	13,18	3	4
*	6 Database design	18,18	13,13	5	4
	7 User Interface design	15,22	13,20	2	4
	8 Survey logic algorithm	15,21	13,19	2	4
	9 MVVM design Implementation	21,26	16,21	5	5
*	10 Database DAO and models	24,24	18,18	6	6
	11 User Interface coding	19,26	15,22	4	7
	12 Algorithm coding	19,25	15,21	4	8
*	13 Database testing	26,26	24,24	2	10

Critical Path	Subtask	Completion time	Start time	Time to complete	Dependencies (Predecessor)
	14 Flag and Validation Checks	20,26	19,25	1	12
*	15 API use Sync testing	28,28	26,26	2	9,11,13,14
*	16 Publish App on Playstore	35,35	28,28	7	15

Slack time
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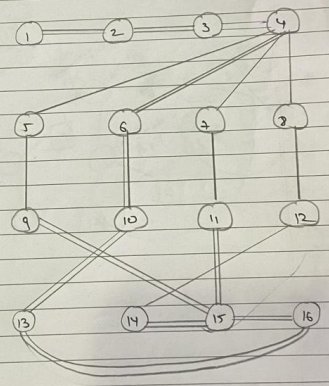
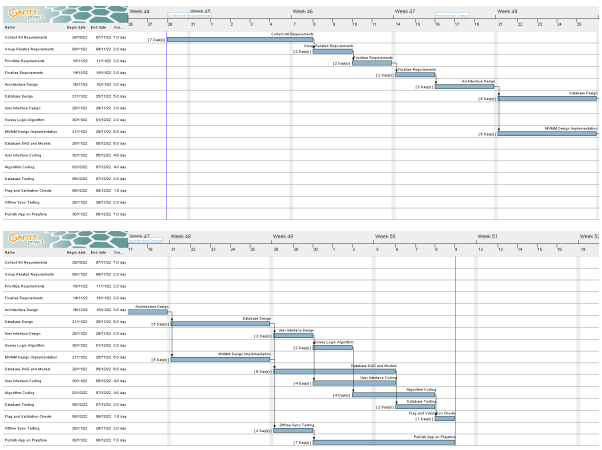
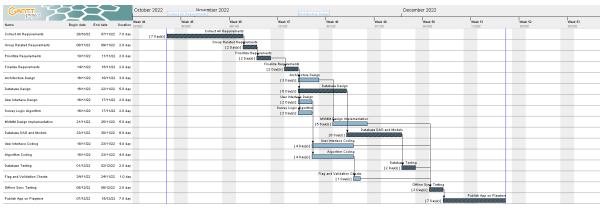
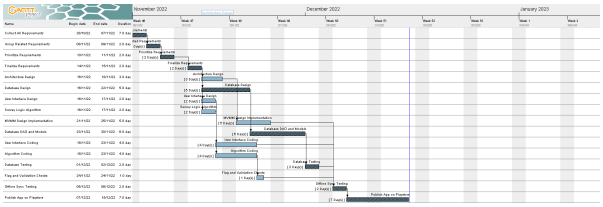
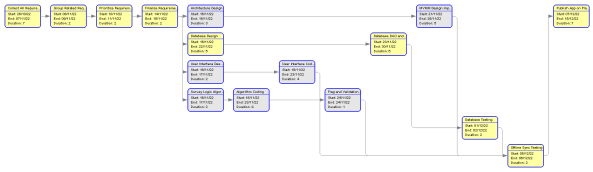


Critical Path

Gantt Chart	 **Critical Path**  
Pert Chart	
Conclusion	The Gantt chart, Critical Path has been created for the timeline of the project of Food Delivery System and Slack time has been calculated using appropriate tools.