S.N.	Title	Remarks
1	**Case Analysis: ProjectLibre(Description, and screenshots)**	
2	**Gantt chart using projectLibre or any other tools**	
3	**Network Diagram and Critical path using projectLibre or any other tools**	
4	**Project monitoring using Slip Chart**	
5	**Economic Feasibility Study Techniques:**	
6	**Test cases:(You can use your project's)**	

Case Tool: ProjectLibre

ProjectLibre is a project management software company with both a free open-source desktop and Cloud version which helps in multi project management. ProjectLibre desktop is a free and open-source project management software system intended ultimately as a standalone replacement for Microsoft Project. ProjectLibre has been downloaded 7,000,000 times in 200 countries on all 7 continents and translated into 31 languages.

The current version includes:

1. Microsoft Project compatibility.
2. OpenOffice and LibreOffice compatibility.
3. Ribbon user interface.
4. Earned value costing.
5. Gantt chart.
6. PERT graph only (not PERT technique).
7. Resource breakdown structure (RBS) chart.
8. Task usage reports.
9. Work breakdown structure (WBS) chart.
10. Resource Histogram

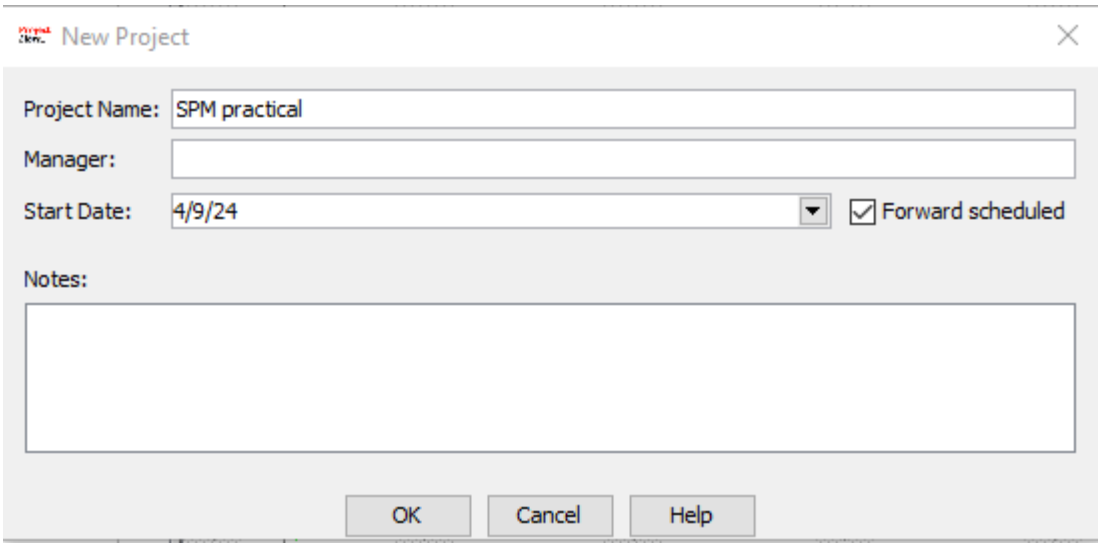

Figure 1 Create Project

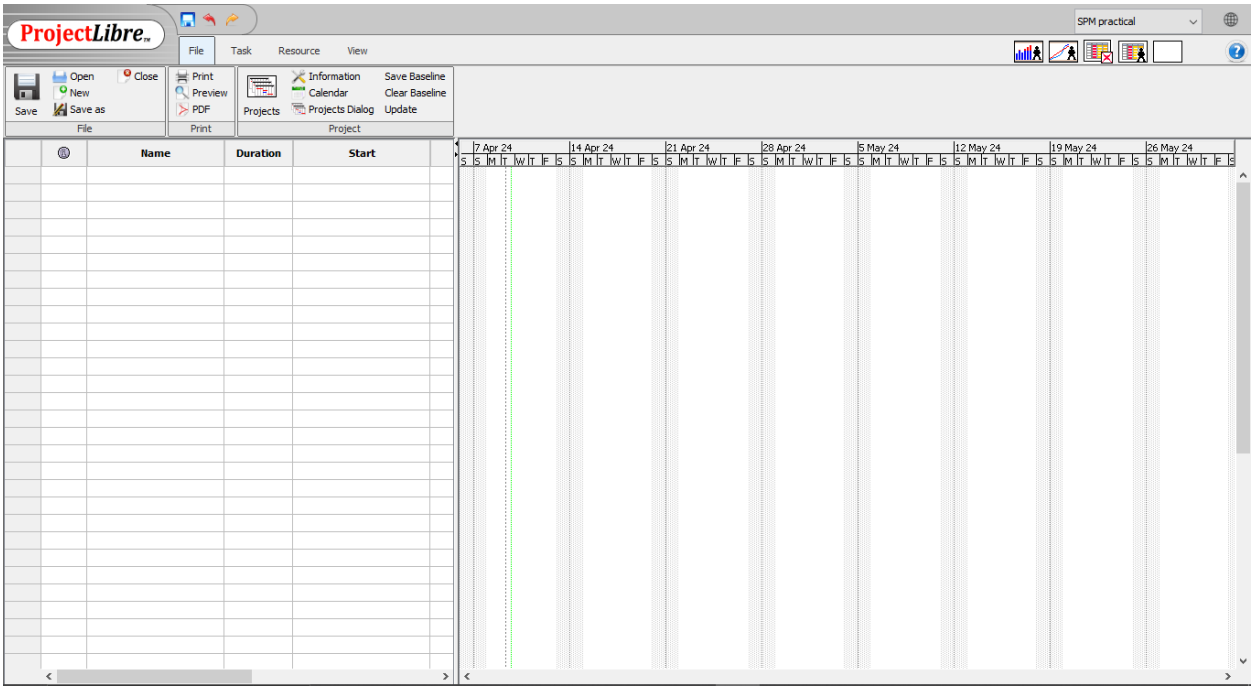

Figure 2 Inner Interface

Economic Feasibility

n = nth year

Discount rate = $\frac{1}{(1+r)\text{^}t}$

PV of benefits = Net economic benefit of year n * discount rate of year n

PV of recurring costs = Recurring cost of year n * discount rate of year n

NPV of all benefits = NPV of all benefits of year (n-1) + PV of benefits of year n

NPV of all costs = NPV of all costs of year (n-1) + PV of recurring costs of year n

Overall NPV = NPV of all benefits + NPV of all costs

Overall ROI = (Overall NPV / NPV of All COSTS)

		Year of Project						
		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	TOTALS
3	Net Economic Benefit	0	80000	80000	80000	80000	80000	
4	Discount Rate (10%)	1	0.9091	0.8264	0.7513	0.683	0.6209	
5	PV of Benefits	0	72727	66116	60105	54641	49674	
6								
7	NPV of all BEBEFITS	0	72727	138843	198948	253589	303263	**303263**
8								
9	One-time COSTS	-65000						
10								
11	Recurring Costs	0	-45000	-45000	-45000	-45000	-45000	
12	Discount Rate (12%)	1	0.9091	0.8264	0.7513	0.683	0.6209	
13	PV of Recurring Costs	0	-40909	-37190	-33809	-30736	-27941	
14								
15	NPV of All COSTS	-65000	-105909	-143099	-176908	-207644	-235585	**-235585**
16								
17	Overall NPV							**67677.5**
18								
19	Overall ROI = (Overall NPV / NPV of All COSTS)							**0.28727**
20								
21	Break-Even Analysis							
22	Yearly NPV Cash Flow	-65000	31818	28926	26296	23905	21732	
23	Overall NPV Cash Flow	-65000	-33182	-4256.2	22040	45945	67678	
24								
25	Project break-even occurs between years 2 and 3							
26	Use first year of positive cash flow to calculate break-even fraction = ((Yearly NPV Cash Flow - Overall NVP Cash Flow)/Yearly NPV Cash Flow) = ((26296.02-22039.82)/26296.02)=0.16							
27	**Actual break-even occured at 2.16 years**							
28								

	benefit	80000
	one time cost	65000
	recuring cost	45000
	discount rate	10
	time	5

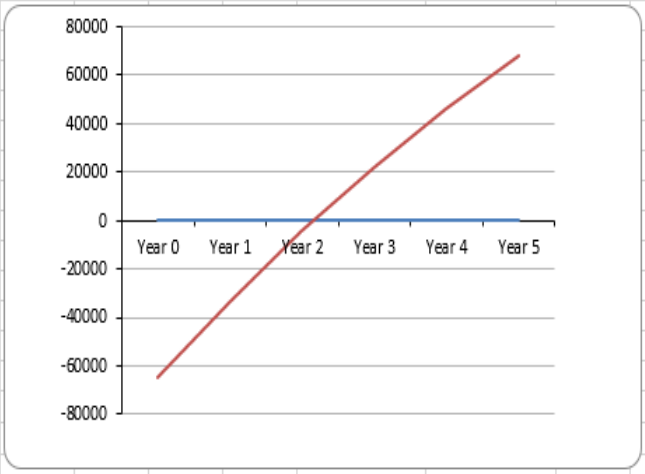

Figure 3 Economic Feasibility

Gantt chart

A Gantt chart is a project management tool that allows project managers to create a project schedule by mapping project tasks over a visual timeline which shows the order in which they'll be completed, when they're due, their duration and other details about them such as their percentage of completion. Every Gantt chart has two main parts, a grid or task list on the left side and a project timeline on the right.

	Name	Duration	Start	Finish	Predecessors
1	Planning	14 days?	4/9/24 8:00 AM	4/26/24 5:00 PM	
2	Requirement Collection	28 days?	4/29/24 8:00 AM	6/5/24 5:00 PM	1
3	Designing	21 days	6/6/24 8:00 AM	7/4/24 5:00 PM	2
4	Implemenation	14 days?	7/5/24 8:00 AM	7/24/24 5:00 PM	3
5	Testing	20 days?	7/25/24 8:00 AM	8/21/24 5:00 PM	4
6	Documentation	14 days	8/22/24 8:00 AM	9/10/24 5:00 PM	5
7	Final Testing	7 days	9/11/24 8:00 AM	9/19/24 5:00 PM	6

Figure 4: Schedule

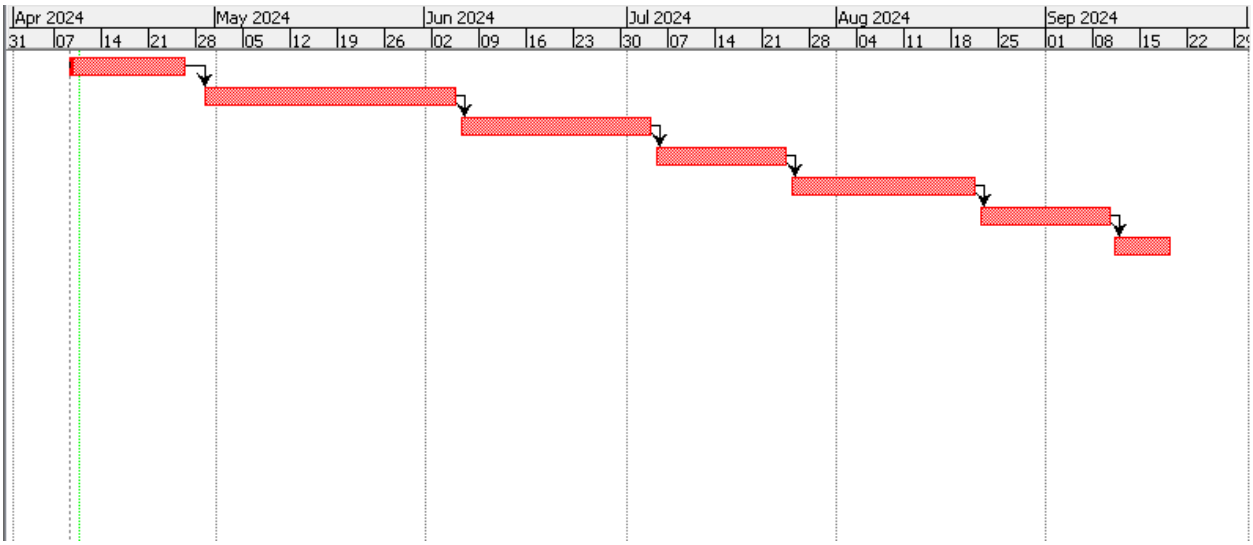

Figure 5 Gantt chart

Slip Chart

A slip chart is a type of visual progress chart used in software project management to show the overall progress of a given project over time. A slip chart is a version of the Gantt chart where a line is drawn from top to. bottom. To the left of the line are all the completed activities and to the right. those activities (or parts of activities) that have not been completed.

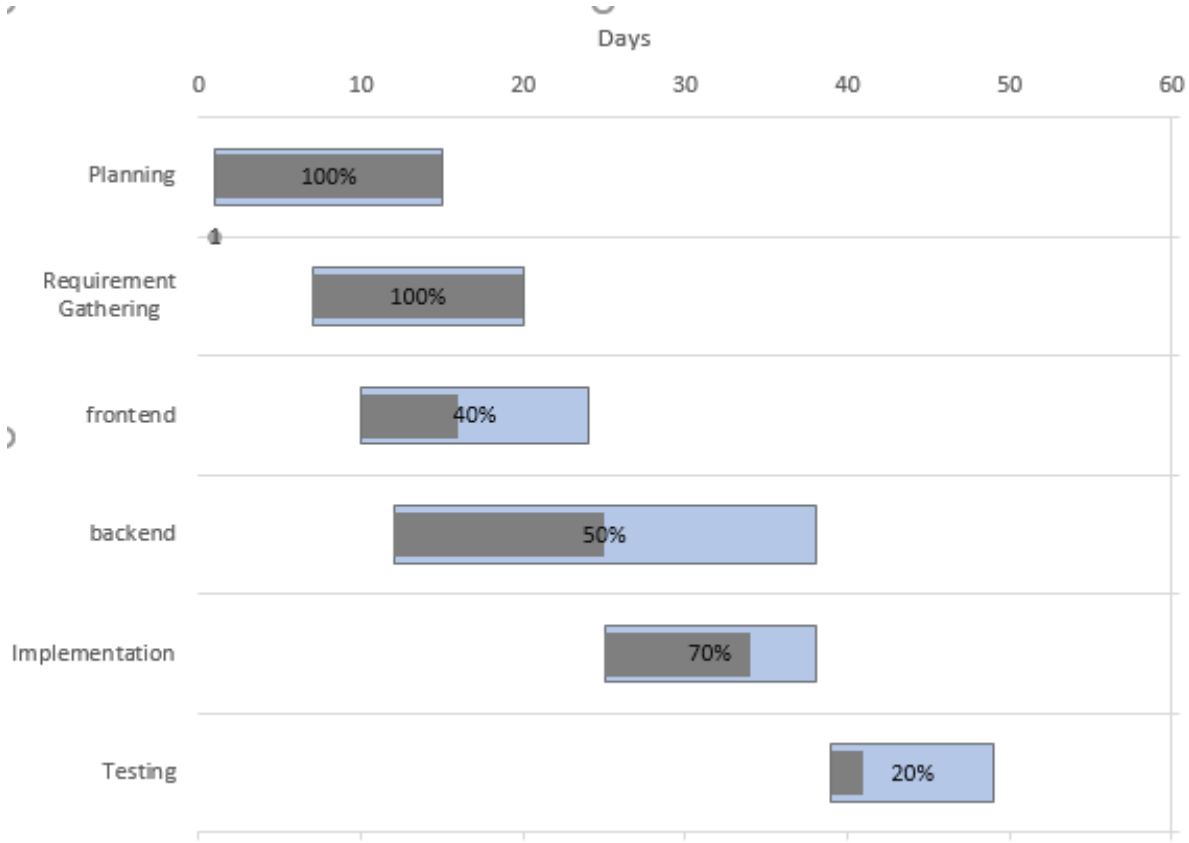

Figure 6 Slip chart

Network diagram

A network diagram serves as a visual representation of project tasks, their relationships, and the flow of activities. Network diagrams provide a visual roadmap, highlighting critical paths and allowing project teams to identify dependencies, analyze project timelines, and optimize resource allocation for successful project execution.

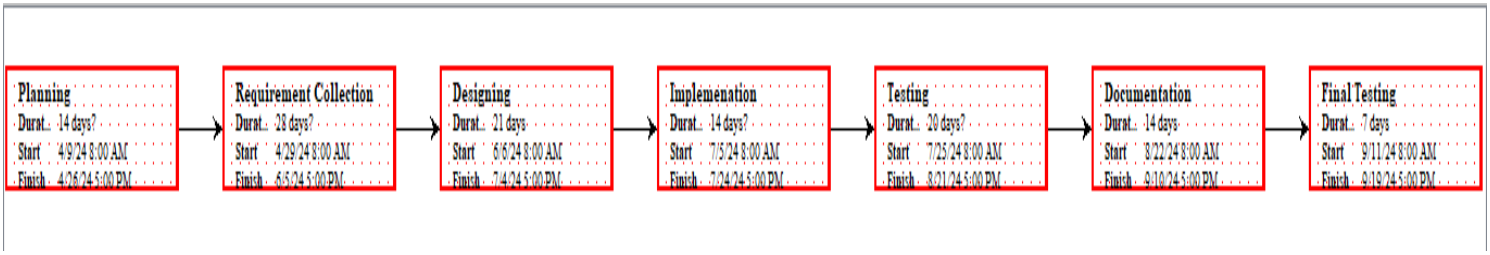

Figure 7 Network Diagram

Test Cases

Table 1: Admin Login

Test Case ID	Scenario	Step	Test Data	Excepted Result
T01	Check register data for Admin login	Enter Email and Password after visiting the site	Email: admin@admin.com Password: admin	Successfully login as redirected to Admin homepage
T02	Check for users input for login with invalid data	Enter Email and Password after visiting the site	Email: admin@admin.com Password: admin1233	Invalid details

Table 2: Kitchen Login

Test Case ID	Scenario	Step	Test Data	Excepted Result
T01	Check register data for Staff login	Enter Email and Password after visiting the site	Email: Kitchen@gmail.com Password: kitchen	Successfully login as redirected to Kitchen homepage
T02	Check for users input for login with invalid data	Enter Email and Password after visiting the site	Email: Kitchen@gmail.com Password: staff122	Invalid details

Table 3: Waiter Login

Test Case ID	Scenario	Step	Test Data	Excepted Result
T01	Check register data for Staff login	Enter Email and Password after visiting the site	Email: Waiter@gmail.com Password: waiter	Successfully login as redirected to Waiter homepage
T02	Check for users input for login with invalid data	Enter Email and Password after visiting the site	Email:staff@gmail.com Password: staff122	Invalid details