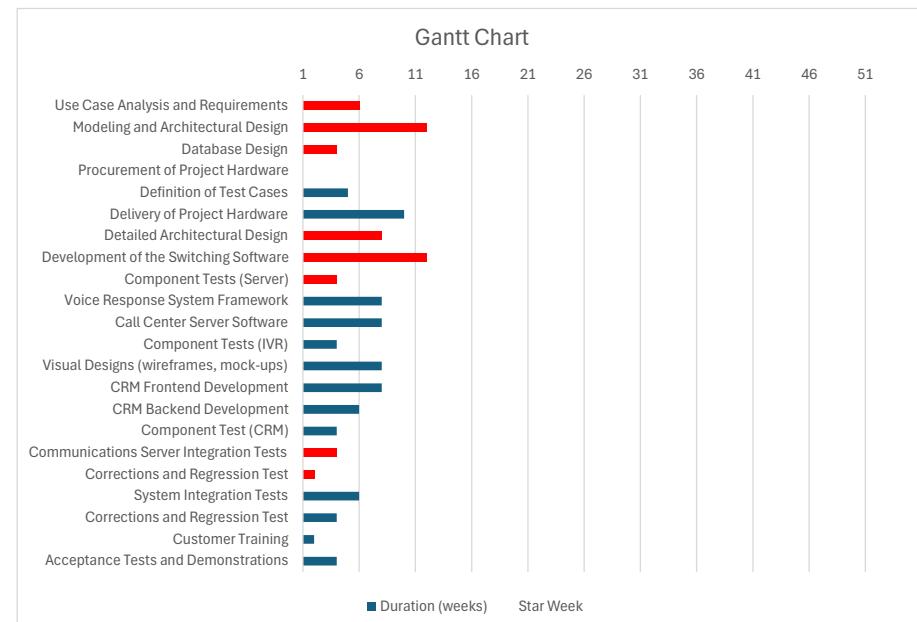


Task ID	Task Name	Duration (weeks)	Predecessor	Star Week	End Week
1.1	Use Case Analysis and Requirements	6	-	1	6
1.2	Modeling and Architectural Design	12	1.1	7	18
1.3	Database Design	4	1.2	19	22
1.4	Procurement of Project Hardware	1	1.3	23	23
1.5	Definition of Test Cases	5	1.1	7	11
1.6	Delivery of Project Hardware	10	1.4	24	33
2.1	Detailed Architectural Design	8	1.2	19	26
2.2	Development of the Switching Software	12	2.1	27	38
2.3	Component Tests (Server)	4	2.2	39	42
3.1	Voice Response System Framework	8	1.3	23	30
3.2	Call Center Server Software	8	3.1	31	38
3.3	Component Tests (IVR)	4	3.2	39	42
4.1	Visual Designs (wireframes, mock-ups)	8	1.1	7	14
4.2	CRM Frontend Development	8	4.1	15	22
4.3	CRM Backend Development	6	1.3	23	28
4.4	Component Test (CRM)	4	4.3	29	32
5.1	Communications Server Integration Tests	4	1.6, 2.3	43	46
5.2	Corrections and Regression Test	2	5.1	47	48
5.3	System Integration Tests	6	1.6, 3.2, 4.4	39	44
5.4	Corrections and Regression Test	4	5.3	45	48
5.5	Customer Training	2	5.4	49	50
5.6	Acceptance Tests and Demonstrations	4	5.5	51	54



Critical Path:

1.1 → 1.2 → 1.3 → 3.1 → 3.2 → 5.3 → 5.4 → 5.5 → 5.6

Total Project Duration: 54 weeks

Minimum Required Team Size:
To complete the project in 54 weeks, approximately 3 full-time team members are required.
This is due to overlapping parallel activities that cannot be executed by fewer resources without extending the project duration.

Risk Scenario:

If activity 1.6 (Delivery of Project Hardware) takes 40 weeks instead of 10 weeks, the project completion time increases to approximately 79 weeks, causing a delay of about 25 weeks.

Contingency Plan:

- Alternative hardware suppliers
- Early procurement
- Temporary hardware rental
- Cloud-based testing environments

GitHub Repository:

<https://github.com/sarp-onaran/soft2101-hw4>