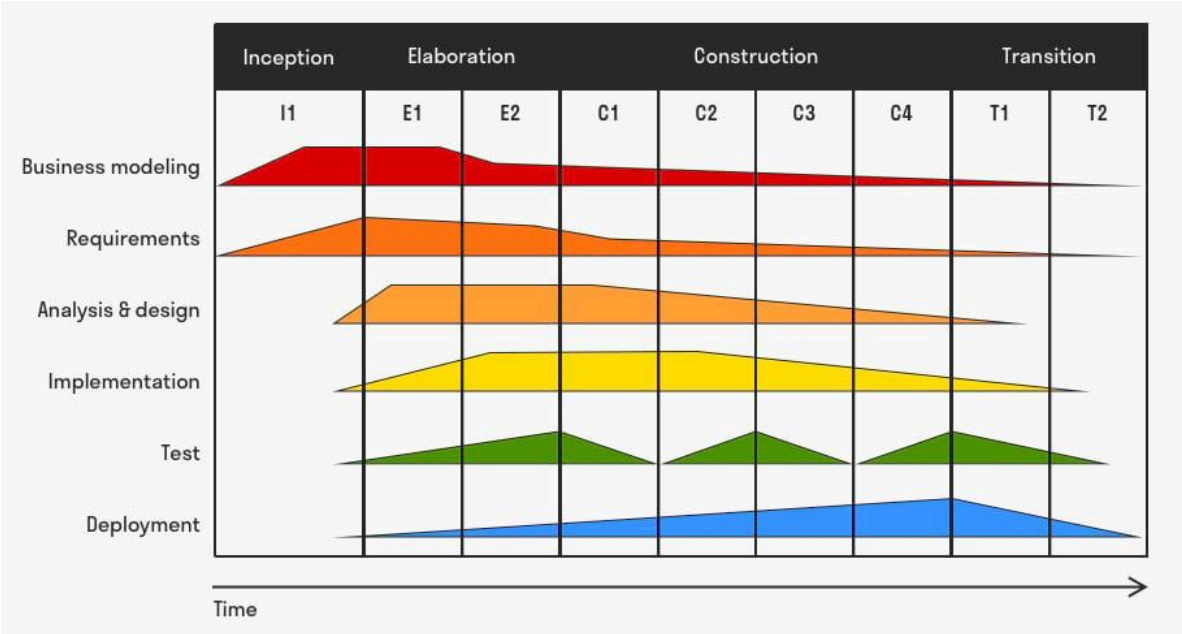
Moonrider:A Web-Based Gasoline Station And Motorcycle Repair Shop Locator System
SDLC and GANTT CHARTS



Rational Unified Process (RUP) Methodology

Inception Phase

This phase sets the foundation and direction of the whole project. By identifying the actual problems of motorists in Bulan—like the difficulty of locating gasoline stations or repair shops during emergencies—the project ensures that it addresses real community needs. Gathering initial requirements and drafting a basic design helps prevent wasted resources later, since the team already knows the key features (GPS tracking, search tool) that must be delivered. Identifying stakeholders early guarantees that the system will be aligned with user expectations from the start.

Elaboration Phase

This phase allows the team to translate broad ideas into concrete technical solutions. Without detailed planning of requirements, database structures, and system architecture, the project might face inconsistencies or integration problems later. By finalizing how the GPS locator, database, and user interface will interact, the system is designed to be efficient, accurate, and reliable. A clear plan at this stage reduces risks, avoids costly rework, and ensures that the locator system can handle the actual needs of Bulan motorists effectively.

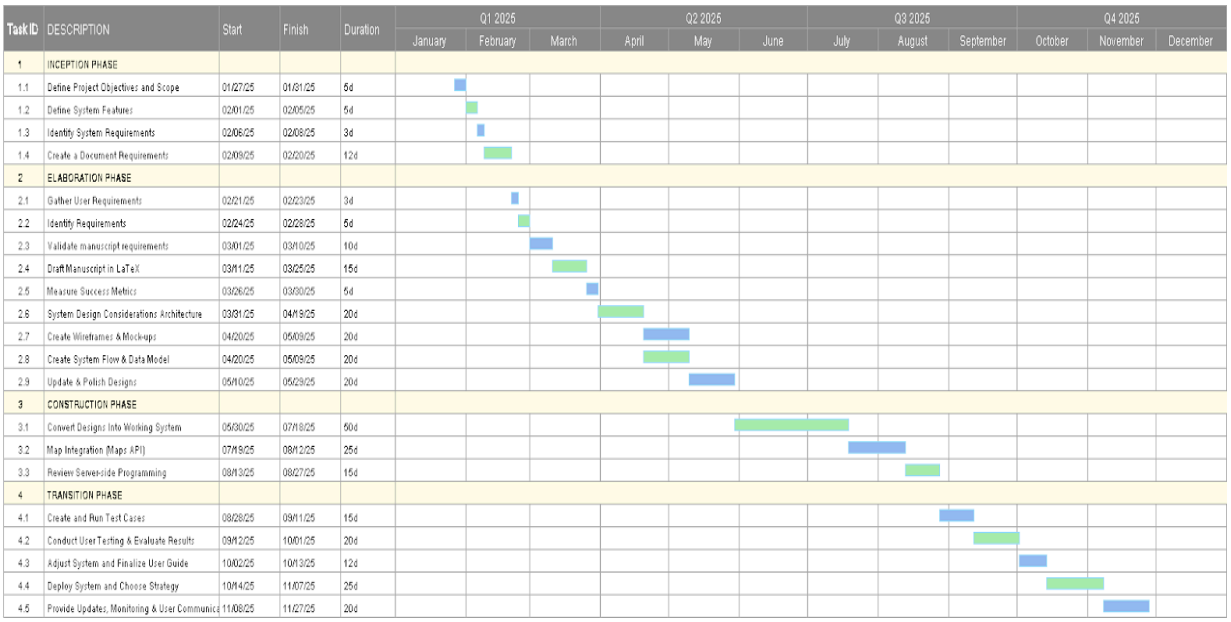
Construction Phase

This is where the system is actually brought to life through coding and implementation. Building the interactive map, GPS locator, and search tool in iterations ensures that the most critical features are prioritized and tested early, avoiding major failures later on. Admin tools (for

adding and updating shop/station data) ensure that information stays current and useful for users. Continuous testing during construction is also essential to guarantee quality and reliability, preventing errors that could frustrate users during emergencies.

Transition Phase

This is the stage where the system is validated in real-world use before full adoption. By finalizing features, fixing bugs, and training users, the project ensures that both motorists and admins can use the system confidently. Deployment allows the team to gather practical feedback, which is critical for improvements and future updates. This guarantees that the locator system will not only function but also deliver real value to the community of Bulan by making fuel and repair services more accessible and dependable.



	Task ID	DESCRIPTION	Start	Finish	Duration
1	1	INCEPTION PHASE			
2	1.1	Define Project Objectives and Scope	01/27/25	01/31/25	5d
3	1.2	Define System Features	02/01/25	02/05/25	5d
4	1.3	Identify System Requirements	02/06/25	02/08/25	3d
5	1.4	Create a Document Requirements	02/09/25	02/20/25	12d
6	2	ELABORATION PHASE			
7	2.1	Gather User Requirements	02/21/25	02/23/25	3d
8	2.2	Identify Requirements	02/24/25	02/28/25	5d
9	2.3	Validate manuscript requirements	03/01/25	03/10/25	10d
10	2.4	Draft Manuscript in LaTeX	03/11/25	03/25/25	15d
11	2.5	Measure Success Metrics	03/26/25	03/30/25	5d
12	2.6	System Design Considerations Architecture	03/31/25	04/19/25	20d
13	2.7	Create Wireframes & Mock-ups	04/20/25	05/09/25	20d
14	2.8	Create System Flow & Data Model	04/20/25	05/09/25	20d
15	2.9	Update & Polish Designs	05/10/25	05/29/25	20d
16	3	CONSTRUCTION PHASE			
17	3.1	Convert Designs Into Working System	05/30/25	07/18/25	50d
18	3.2	Map Integration (Maps API)	07/19/25	08/12/25	25d
19	3.3	Review Server-side Programming	08/13/25	08/27/25	15d
20	4	TRANSITION PHASE			
21	4.1	Create and Run Test Cases	08/28/25	09/11/25	15d
22	4.2	Conduct User Testing & Evaluate Results	09/12/25	10/01/25	20d
23	4.3	Adjust System and Finalize User Guide	10/02/25	10/13/25	12d
24	4.4	Deploy System and Choose Strategy	10/14/25	11/07/25	25d
25	4.5	Provide Updates, Monitoring & User Communica	11/08/25	11/27/25	20d