Ideation Phase
Brainstorm&IdeaPrioritization Template

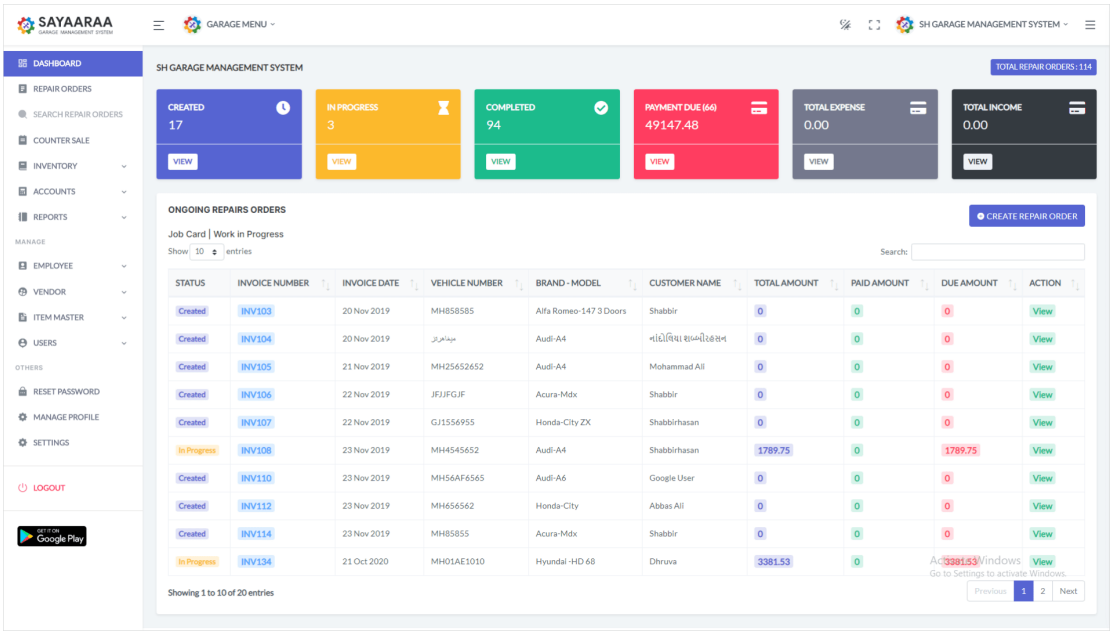
Date	01NOV2025
TeamID	NM2025TMID03923
ProjectName	Garage Management System
MaximumMarks	4Marks

GarageManagementSystemTemplate:

Thisguidedprojectdemonstrateshow todesignand implementaGarageManagementSystem(GMS) thathelpsautomateandorganizedailygarageoperations.Thesystemfocuseson managing customer details, vehicle information, service records, billing, and inventory in a single integrated platform.

The GMS ensures efficient workflow between mechanics, service advisors, and customers by maintainingreal-timeupdatesonvehicleservicestatusandinventoryavailability.Itreducesmanual paperwork, prevents scheduling conflicts, and improves overall service quality.

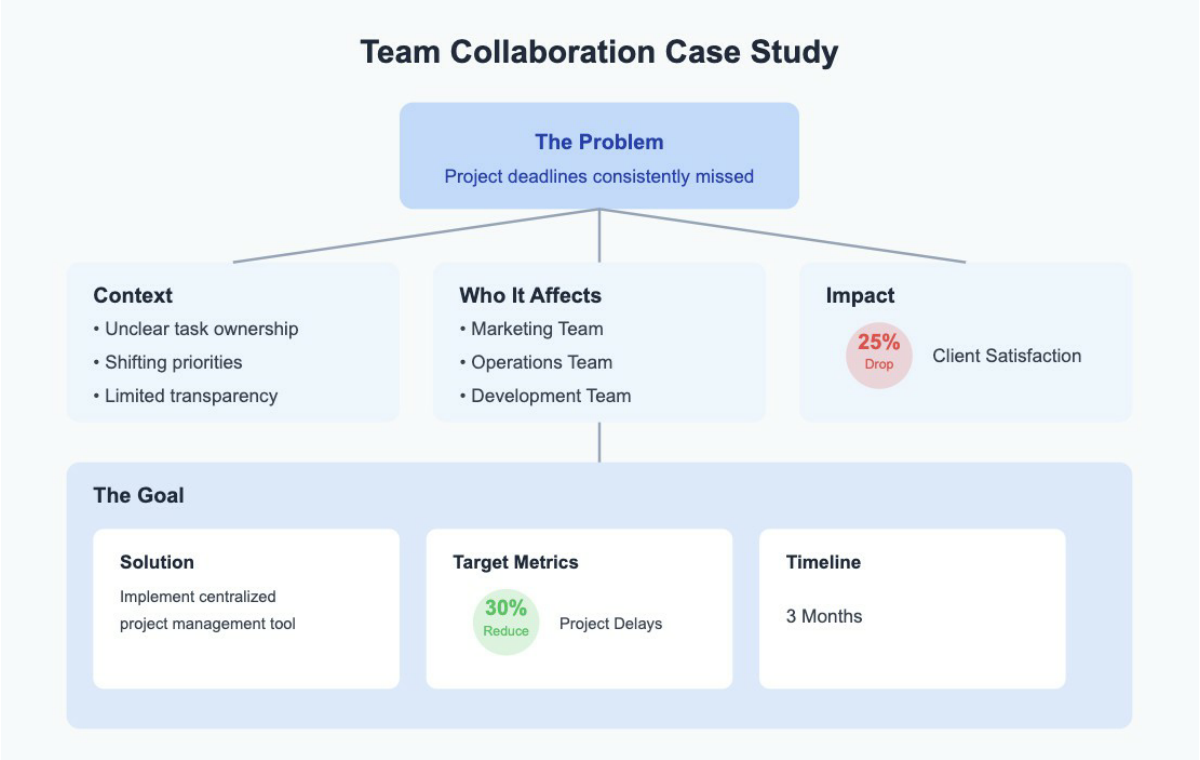
The workflow alsoincludes testscenarios suchas adding new customer records, assigning vehicles for servicing, and generating invoices. This ensures that every module of the system—customer management, vehicle tracking, and service scheduling—works smoothly together. The system ultimatelyhelpsgarageownersimproveproductivity,maintainaccuraterecords,anddeliverbetter customer satisfaction.



Step-1:TeamGathering,Collaboration,andSelectingtheProblemStatement:

The team collaborated to identify common issues faced in garage operations such as inefficient record management, loss of service data, and poor customer follow-up. After group discussions andideacomparison,theteamselectedtheGarageManagementSystemastheprimaryproblem statement to address these inefficiencies using a structured digital solution.

Reference:https://www.mural.co/templates/brainstorm-and-idea-prioritization



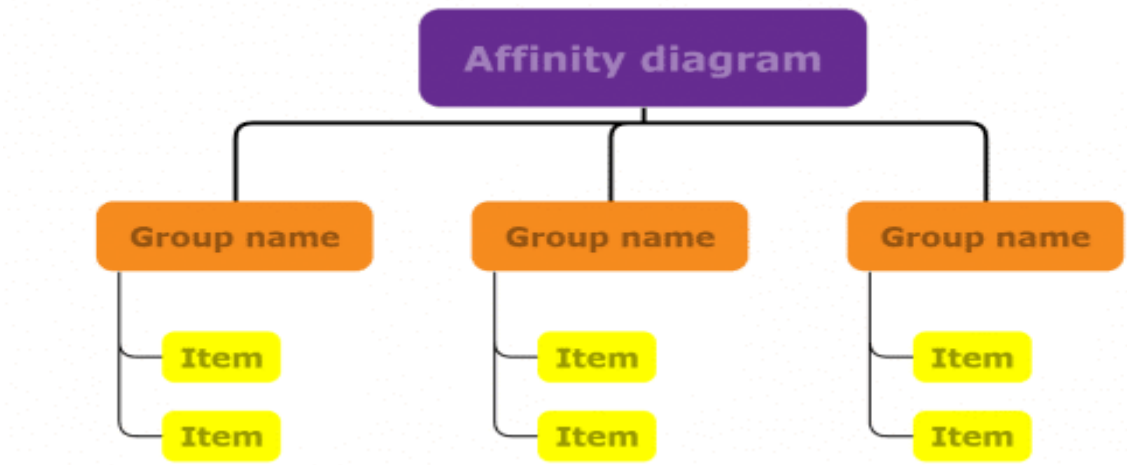
Step-2:Brainstorm,IdeaListing,andGrouping:

Brainstorm: Teammembersfreelycontributedideasonimprovinggarageoperations—from online booking systems and service tracking to automated billing and reminders.

IdeaListing: Allproposedideasweredocumented,including:
- Vehicleservicehistorytracking
- Digitalinvoicingsystem
- Mechanicperformancemonitoring
- Real-timeservicestatusupdates
- Customerfeedbackintegration

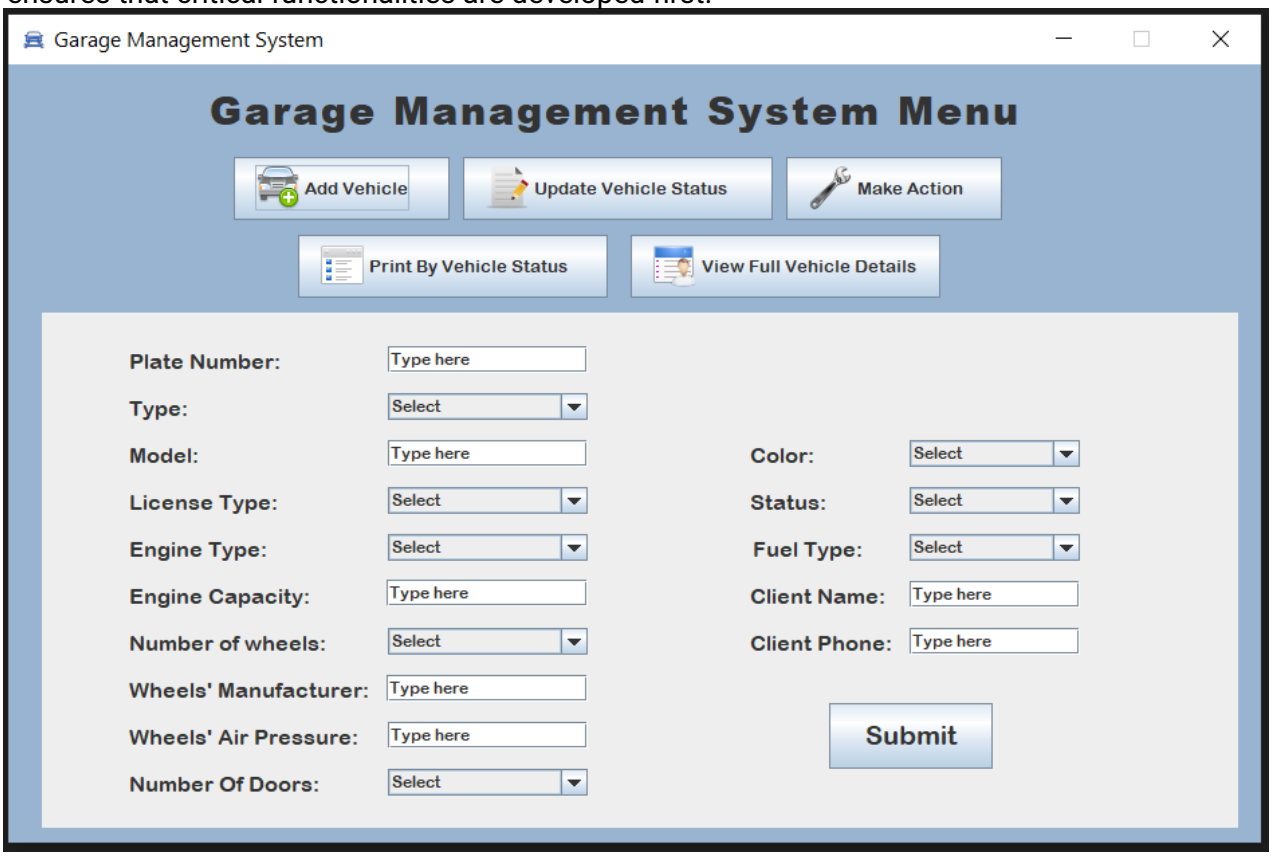
Grouping: Ideasweregroupedunderkeymodules:
- CustomerManagement
- ServiceScheduling
- InventoryControl
- Billing&Payment
- Reports&Analytics

ActionPlanning: Eachmodulewasassignedto teammemberswithcleargoalsanddeadlinesfor implementation and testing.



Step-3:IdeaPrioritization:

Idea prioritization helps break down the Garage Management System into focused, manageable modules. The main goal is to ensure all vehicle and customer records are centralized, making garage operationstransparentandefficient.Prioritizingfeaturessuchasserviceschedulinganddigitalbilling ensures that critical functionalities are developed first.



Byprioritizingideaseffectively,theteamcan:

- Streamlineworkflowbetweenmechanicsandcustomers
- Improvedataintegrityandtrackingaccuracy
- Enhanceuserexperiencethroughautomation

Visualflowchartsandprocessdiagramswillbecreatedtoshowhoweachmoduleinteracts. Thisclarityin planning strengthens project execution and ensures smooth collaboration among team members.

DefinetheProblemStatements

CustomerProblemStatementTemplate:

Garageownersandservicemanagersoftenfaceissuesmanagingcustomerrecords,vehicleinformation, and service tracking manually. This leads to confusion, misplaced service data, and delays in repair or delivery. It creates frustration among both mechanics and customers who expect timely updates and accurate billing.

They need a digital Garage Management System that centralizes all operations — from customer registrationandserviceschedulingtobillingandinventorytracking.Suchasystem ensuressmooth workflow, improves customer satisfaction, and minimizes operational delays.

By introducing automation and real-time record management, garages can enhance efficiency, reduce paperwork,andmaintainaccurate servicehistories.Thissolutionwillimproveproductivity,transparency, and service reliability for both staff and customers.

Reference:https://miro.com/templates/customer-problem-statement/

ProblemStatementPS1:

Asagarageowner,Iamtryingtomanagecustomerinformationandvehicleservicehistoriesefficiently. However, I struggle because all data — including customer details, invoices, and service records — is stored manually in paper files.

This leads to errors, missing information, and delays in communicating service updates to customers. It alsoaffectscustomertrustandthe overallprofessionalismofthegarage.Ineedan automatedsystemto store and retrieve data easily, ensuring faster and more accurate service management.

ProblemStatementPS2:

As a service manager, I want to schedule and track ongoing repairs and assign tasks to mechanics efficiently.Butsincethereisnodigitalsystem,it'shardtomonitor serviceprogress,sparepartusage,or time spent on each task. This causes confusion, delays, and customer dissatisfaction.

AcentralizedGarageManagementSystemwouldallowreal-timetrackingofjobs,automaticnotifications, and better workload management — improving coordination and service quality.

Empathize&Discover

EmpathyMapCanvas:

IntheEmpathize& Discoverphase,the teamstudieshowgarageowners,mechanics,andcustomers interact during daily

operations.They discover that garage staff often feel frustrated due to manual record-keeping, unclear service status updates, and communication delays between mechanics.

By interviewing stakeholders such as service managers, mechanics, and vehicle owners, the team uncoverspainpointslikemisplacedservicerecords,confusioninworkscheduling,andlackofreal-time updates on vehicle repairs. Customers, on the other hand, express frustration over not knowing when their vehicles will be ready or how much a repair will cost.

Gathering these insights helps the team understand the real challenges in garage management workflows. Understanding these day-to-day struggles shows the need for a centralized digital system thatprovidesservicetracking,automaticnotifications,andtransparentbilling.Thesefindingsguideth e design of a Garage Management System that simplifies operations, reduces delays, and improves customer trust.

Reference:https://www.mural.co/templates/empathy-map-canvas

The empathy map helped us visualize user challenges in managing garage operations. It revealed their painpoints,goals,andneedsfor amoretransparentandautomatedworkflow.Thisprocessguidedus to design an intelligent Garage Management System that supports all stakeholders — owners, mechanics, and customers — with real-time communication and task visibility.

Example:VehicleService&MaintenanceManagement

Bydeeplyunderstandingusersthroughempathymapping,weidentifiedkeyfrustrationsindailygarage activities — such as unclear service tracking, manual billing errors, and poor communication between staffandcustomers. These insights highlightedthe needfor automationand a digital service workflow.

Asaresult,wedesignedaGarageManagementSystemthatintegrates:

- Digitalserviceschedulingandassignmenttracking
- Automaticremindersandservicestatusalerts
- Centralizedbillingandinventorymanagement

Thisensuressmoothcoordinationbetweenmechanicsandmanagers,minimizesservicedelays,and enhances customer satisfaction. The system ultimately improves accountability, transparency, and efficiency in garage operations.