

Car Service Booking System of AUTOCARE

BUSINESS PROJECT

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Business Background (AUTOCARE)

- Founded: in 2015
- Offering a wide range of Car Quick services
(from Car washing, polishing to Changing services)
- Launched 3 branches
- Aiming to offer more, unique services soon!
(Home service, Pick up service)

AUTOCARE
Always taking care of your cars...

Current System Overview

- Operating as Traditional Car services centers
- Manual data recording and booking scheduling
- Accepts bookings, Make contacts via Phone calls, SMS, Facebook messenger
- Accepts Drive-in customers (requires queueing if there are not enough spaces available)

Current Business Problems

- Insufficient Garage Space & Long queueing time
- Dissatisfaction/ Complaints on service quality/ workers
- Manual, paper based system harming employees' Productivity
- Inaccuracies/ Omissions in recording booking details, booking miss-scheduling
- Customer dissatisfaction & Reputation Damage



Proposed Database-driven online Booking system (Aims)

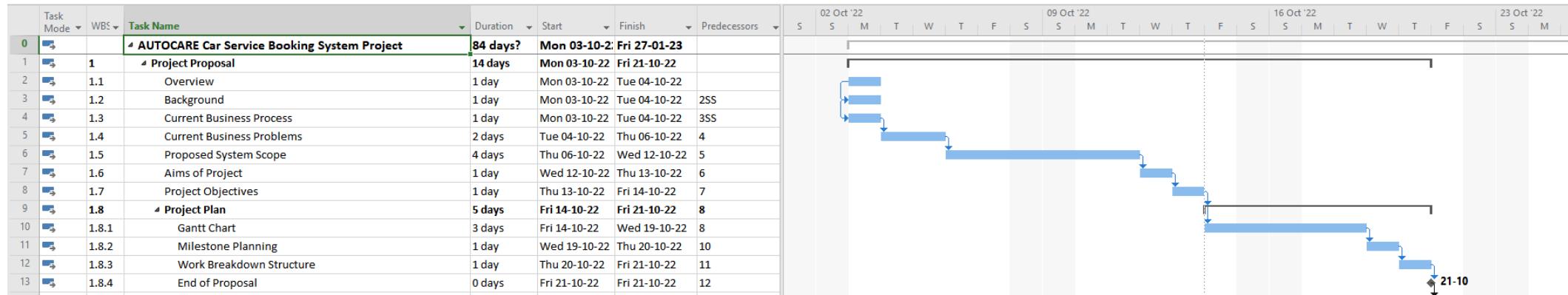
- To reduce customer queueing/ waiting
- Streamlined servicing
- Improved Quality Control over services and workers
- More convenience in managing Bookings, improved productivity



Proposed Database-driven online Booking system (Objectives)

- Analyze AUTOCARE's processes and problems
- Define solution, scopes, aims and objectives
- Literature study on DBMSs, Methodologies, Similar Businesses & information systems
- Feasibility Analysis on proposed system
- Requirement gathering and designing how the proposed system would work
- Structural Design, User Interface Design, Behavioral Design and Database implementation
- System Evaluation according to the needs of AUTOCARE and its issues

Project Planning

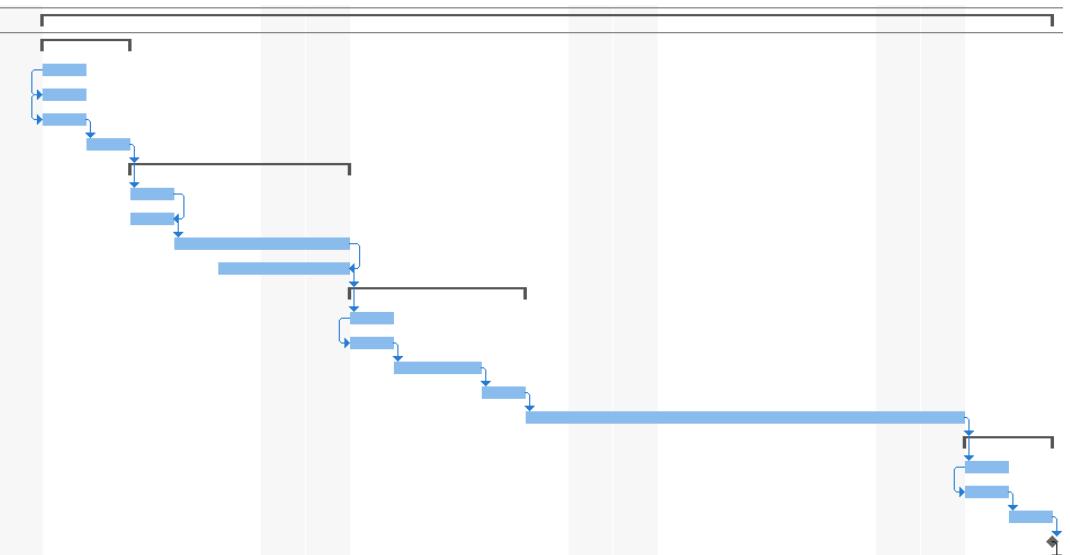


Task Name: Chapter 1: Introduction (13 days)

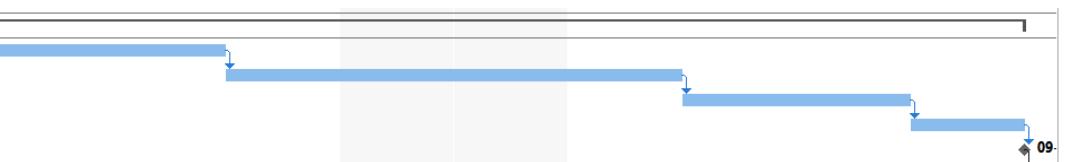
Task	Mode	WBS	Task Name	Duration	Start	Finish	Predecessors
14		2	Chapter 1: Introduction	11 days?	Fri 21-10-22	Mon 07-11-22	13
15		2.1	Background	1 day?	Fri 21-10-22	Mon 24-10-22	13
16		2.2	Current System Overview	1 day	Fri 21-10-22	Mon 24-10-22	15SS
17		2.3	Current System Problems	1 day	Mon 24-10-22	Tue 25-10-22	16
18		2.4	Proposed System Scope	2 days	Tue 25-10-22	Thu 27-10-22	17
19		2.5	Aims of Project	1 day	Thu 27-10-22	Fri 28-10-22	18
20		2.6	Project Objectives	1 day	Fri 28-10-22	Mon 31-10-22	19
21		2.7	Project Plan	2 days	Mon 31-10-22	Wed 02-11-22	20
22		2.7.1	Gantt Chart	1 day	Mon 31-10-22	Tue 01-11-22	20
23		2.7.2	Milestone Planning	1 day	Tue 01-11-22	Wed 02-11-22	22
24		2.7.3	Work Breakdown Structure	1 day	Tue 01-11-22	Wed 02-11-22	23SS
25		2.8	Progress Management	1 day	Wed 02-11-22	Thu 03-11-22	24
26		2.9	Risk Management	2 days	Thu 03-11-22	Mon 07-11-22	25
27		2.10	End of Chapter 1	0 days	Mon 07-11-22	Mon 07-11-22	26

Project Planning

28	3	▲ Chapter 2: Literature Review	17 days	Mon 07-11-22	Wed 30-11-22	27
29	3.1	▲ Database Concept	2 days	Mon 07-11-22	Wed 09-11-22	27
30	3.1.1	Database Definition	1 day	Mon 07-11-22	Tue 08-11-22	27
31	3.1.2	Database Structure and Components	1 day	Mon 07-11-22	Tue 08-11-22	30SS
32	3.1.3	Type of Databases	1 day	Mon 07-11-22	Tue 08-11-22	31SS
33	3.1.4	Database Design (Normalization, ERD, etc.)	1 day	Tue 08-11-22	Wed 09-11-22	32
34	3.2	▲ Database Comparison	3 days	Wed 09-11-22	Mon 14-11-22	33
35	3.2.1	Microsoft SQL Server	1 day	Wed 09-11-22	Thu 10-11-22	33
36	3.2.2	MySQL	1 day	Wed 09-11-22	Thu 10-11-22	35FF
37	3.2.3	Comparison between MSSQL and MySQL	2 days	Thu 10-11-22	Mon 14-11-22	36
38	3.2.4	Recommendation for Database	1 day	Fri 11-11-22	Mon 14-11-22	37FF
39	3.3	▲ Methodology	4 days	Mon 14-11-22	Fri 18-11-22	38
40	3.3.1	SSADM	1 day	Mon 14-11-22	Tue 15-11-22	38
41	3.3.2	OOAD	1 day	Mon 14-11-22	Tue 15-11-22	40SS
42	3.3.3	Comparison between SSADM and OOAD	2 days	Tue 15-11-22	Thu 17-11-22	41
43	3.3.4	Recommendation for Methodology	1 day	Thu 17-11-22	Fri 18-11-22	42
44	3.4	Case Study Analysis	6 days	Fri 18-11-22	Mon 28-11-22	43
45	3.5	▲ Information System Theory	2 days	Mon 28-11-22	Wed 30-11-22	44
46	3.5.1	Information System Definition	1 day	Mon 28-11-22	Tue 29-11-22	44
47	3.5.2	Types of Information System	1 day	Mon 28-11-22	Tue 29-11-22	46SS
48	3.5.3	Benefits of Information System	1 day	Tue 29-11-22	Wed 30-11-22	47
49	3.5.4	End of Chapter 2	0 days	Wed 30-11-22	Wed 30-11-22	48

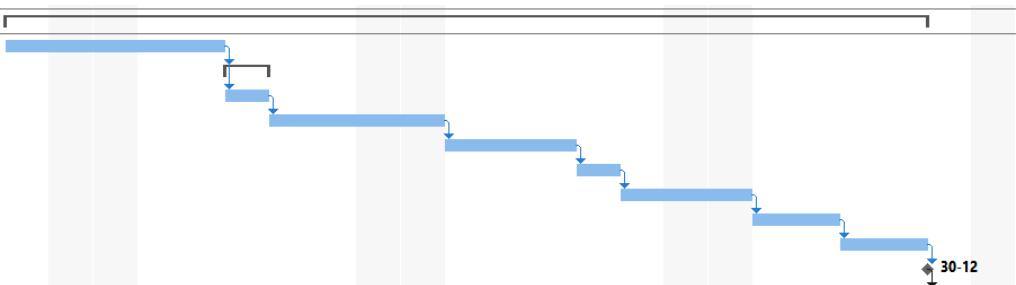


50	4	▲ Chapter 3: Feasibility Study	7 days	Wed 30-11-22	Fri 09-12-22	49
51	4.1	Social Analysis	2 days	Wed 30-11-22	Fri 02-12-22	49
52	4.2	Technical Analysis	2 days	Fri 02-12-22	Tue 06-12-22	51
53	4.3	Cost Benefit Analysis	2 days	Tue 06-12-22	Thu 08-12-22	52
54	4.4	No-Go Go Decision	1 day	Thu 08-12-22	Fri 09-12-22	53
55	4.5	End of Chapter 3	0 days	Fri 09-12-22	Fri 09-12-22	54

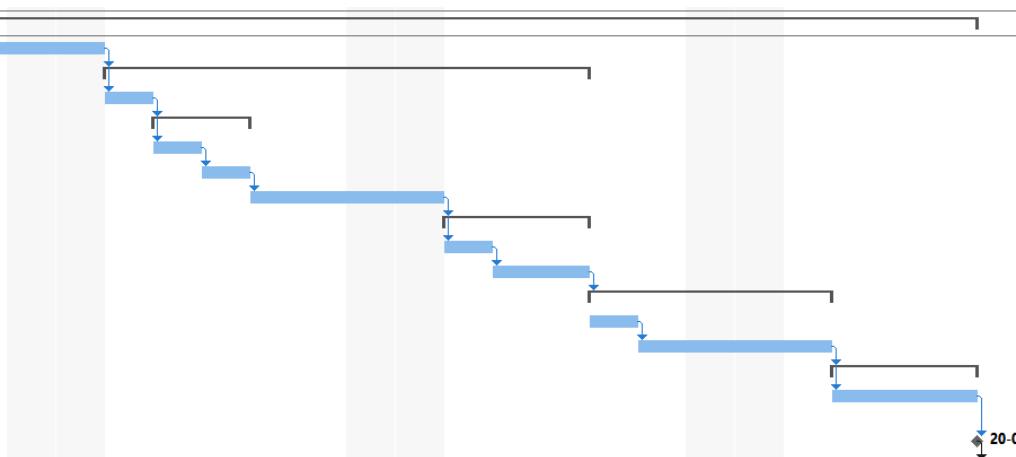


Project Planning

56	5	▫ Chapter 4: Analysis	15 days	Fri 09-12-22	Fri 30-12-22	55
57	5.1	Fact Finding	3 days	Fri 09-12-22	Wed 14-12-22	55
58	5.2	▫ Proposed System Definition	1 day	Wed 14-12-22	Thu 15-12-22	57
59	5.2.1	Context Diagram	1 day	Wed 14-12-22	Thu 15-12-22	57
60	5.3	DFD Level 1	2 days	Thu 15-12-22	Mon 19-12-22	59
61	5.4	ERD	3 days	Mon 19-12-22	Thu 22-12-22	60
62	5.5	Step 1 ERD	1 day	Thu 22-12-22	Fri 23-12-22	61
63	5.6	Step 2 ERD	1 day	Fri 23-12-22	Mon 26-12-22	62
64	5.7	Step 3 ERD	2 days	Mon 26-12-22	Wed 28-12-22	63
65	5.8	Functional Requirements	2 days	Wed 28-12-22	Fri 30-12-22	64
66	5.9	End of Chapter 4	0 days	Fri 30-12-22	Fri 30-12-22	65



67	6	▫ Chapter 5: Design	15 days?	Fri 30-12-22	Fri 20-01-23	66
68	6.1	Introduction to Design	1 day	Fri 30-12-22	Mon 02-01-23	66
69	6.2	▫ Structural Design	8 days	Mon 02-01-23	Thu 12-01-23	68
70	6.2.1	Physical ERD showing entities, attributes, relationships	1 day	Mon 02-01-23	Tue 03-01-23	68
71	6.2.2	▫ Normalization up to 3NF	2 days	Tue 03-01-23	Thu 05-01-23	70
72	6.2.2.1	Pre-Normalization	1 day	Tue 03-01-23	Wed 04-01-23	70
73	6.2.2.2	Normalization Process	1 day	Wed 04-01-23	Thu 05-01-23	72
74	6.2.3	SQL Create Statements for each table/Entity in 3NF	2 days	Thu 05-01-23	Mon 09-01-23	73
75	6.2.4	▫ Data Dictionary	3 days	Mon 09-01-23	Thu 12-01-23	74
76	6.2.4.1	Representing Relationships	1 day	Mon 09-01-23	Tue 10-01-23	74
77	6.2.4.2	Representing Entities and Attributes	2 days	Tue 10-01-23	Thu 12-01-23	76
78	6.3	▫ User Interface Design	3 days	Thu 12-01-23	Tue 17-01-23	77
79	6.3.1	User Interface Design Screens for Customers	1 day	Thu 12-01-23	Fri 13-01-23	
80	6.3.2	User Interface Design Screens for AutoCare Staffs	2 days	Fri 13-01-23	Tue 17-01-23	79
81	6.4	▫ Behavioral Design	3 days?	Tue 17-01-23	Fri 20-01-23	80
82	6.4.1	SQL Codes for each Query/Reports listed in Functional Requirements	3 days?	Tue 17-01-23	Fri 20-01-23	80
83	6.4.2	End of Chapter 5	0 days	Fri 20-01-23	Fri 20-01-23	82



Project Planning

84		7	Chapter 6: Evaluation	4 days?	Fri 20-01-23	Thu 26-01-23	83	
85		7.1	Approach to Structured Walkthrough	1 day?	Fri 20-01-23	Mon 23-01-23	83	
86		7.2	Documents for Evaluation	1 day?	Fri 20-01-23	Mon 23-01-23	85SS	
87		7.3	Completed Evaluation Matrix	1 day?	Tue 24-01-23	Wed 25-01-23	88	
88		7.4	Design Flaws and Rectifications	2 days	Fri 20-01-23	Tue 24-01-23	85SS	
89		7.5	Client Evaluation	1 day?	Wed 25-01-23	Thu 26-01-23	87	
90		7.6	End of Chapter 6	0 days	Thu 26-01-23	Thu 26-01-23	89	

91		8	Chapter 7: Conclusion	1 day?	Thu 26-01-23	Fri 27-01-23	90	
92		8.1	Achievement of Projective Objectives	1 day?	Thu 26-01-23	Fri 27-01-23	90	
93		8.2	End of Chapter 7	0 days	Fri 27-01-23	Fri 27-01-23	92	

The Gantt chart illustrates the project timeline. The first section, 'Chapter 6: Evaluation', spans from Friday, 20-01-23, to Thursday, 26-01-23. It includes tasks for Approach to Structured Walkthrough, Documents for Evaluation, Completed Evaluation Matrix, Design Flaws and Rectifications, Client Evaluation, and the End of Chapter 6. The second section, 'Chapter 7: Conclusion', spans from Thursday, 26-01-23, to Friday, 27-01-23. It includes tasks for Achievement of Projective Objectives and the End of Chapter 7. The chart shows dependencies between tasks and the overall duration of each chapter.

Milestones Planning

Milestones	Deliverables	Dates
Project Proposal	<ul style="list-style-type: none">➤ Overview, Background, Current Business Process, Problems➤ Proposed System Scope➤ Defined Aims, Objectives for proposed project➤ Plan for the project (Gantt chart, Milestone Planning, Work Breakdown Structure)	03-10-22 to 21-10-22 (14 days)
Chapter 1: Introduction	<ul style="list-style-type: none">➤ Background, Current Business Process, Problems➤ Proposed System Scope➤ Defined Aims, Objectives and outcome expectations for proposed project➤ Plan for the project (Gantt chart, Milestone Planning, Work Breakdown Structure)➤ Progress Management➤ Risk Management Plan	21-10-22 to 02-11-22 (11 days)

Milestones Planning

Milestones	Deliverables	Dates
Chapter 2: Literature Review	<ul style="list-style-type: none">➤ Database definition, Structures and Components, Types, Database Design➤ MySQL, MSSQL, Comparison, Recommendation➤ SSADM, OOAD, Comparison, Recommendation➤ Case Study Analysis➤ Information System definition, Types, Benefits	07-11-22 to 30-11-22 (17 days)
Chapter 3: Feasibility Study	<ul style="list-style-type: none">➤ Social Analysis➤ Technical Analysis➤ Cost Benefit Analysis➤ No-Go, Go Decision	30-11-22 to 9-12-22 (7 days)

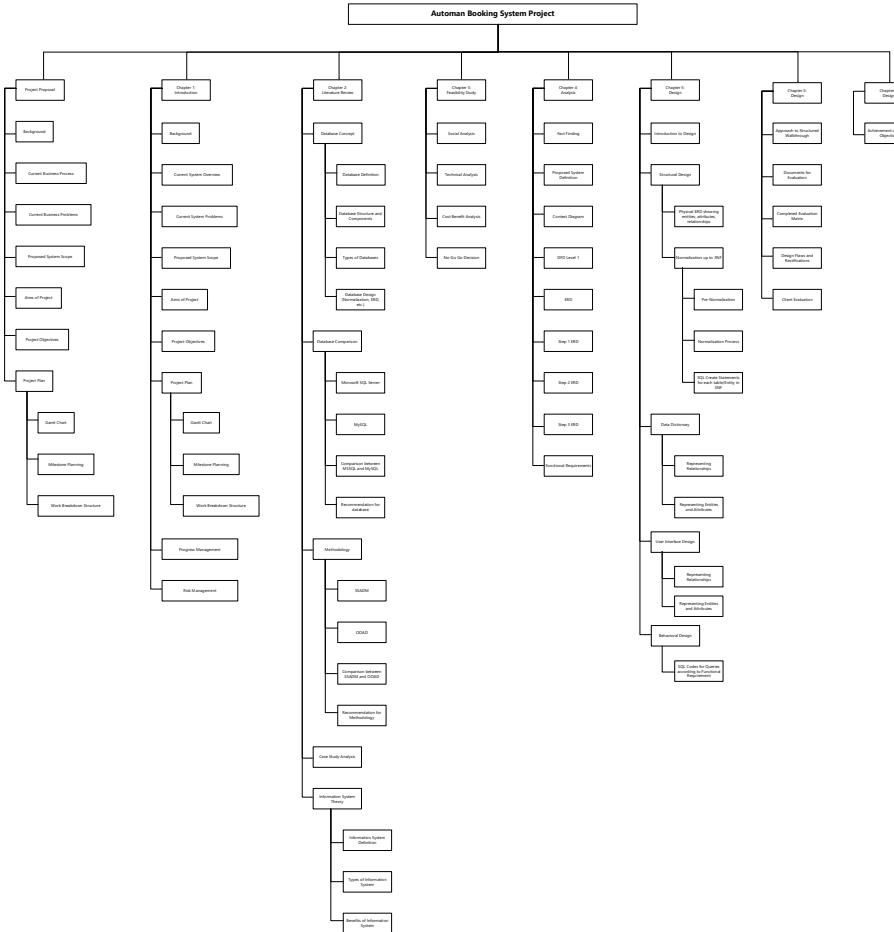
Milestones Planning

Milestones	Deliverables	Dates
Chapter 4: Analysis	<ul style="list-style-type: none">➤ Fact Finding➤ Proposed System Definition➤ Context Diagram on how users interact with system➤ Data Flow Diagram➤ Entity Relationship Diagram➤ Functional Requirements	9-12-22 to 30-12-22 (15 days)
Chapter 5: Design	<ul style="list-style-type: none">➤ Introduction to Design➤ Structural Design including Physical ERD, Normalization process up to 3NF, Physical implementation of normalized entities to tables (SQL Create Statements), Data Dictionary for tables➤ User Interface Design Screens➤ Behavioral Design including SQL queries according to Functional Requirements	30-12-22 to 20-01-23 (15 days)

Milestones Planning

Milestones	Deliverables	Dates
Chapter 6: Evaluation	<ul style="list-style-type: none">➤ Preparing documents for evaluation➤ Completed Evaluation matrix➤ Design Flaws and Rectifications➤ Client Satisfaction evaluation	20-01-23 to 26-01-23 (4 days)
Chapter 7: Conclusion	<ul style="list-style-type: none">➤ Achievement of Project Objectives	26-01-23 to 27-01-23 (1 day)

Work Breakdown Structure



Progress Management

- Tracking tasks with Gantt Chart & Milestones
- Break down large tasks into small ones with Work Breakdown Structure
- Holding progress meeting with supervisors regularly
(re-evaluate plan schedule if delay exists in tasks)

Risk Management

Risks and its synopsis	Type of Risk	Probability to happen	Impacts	Rank	Risk Prevention Plan
<p>➤ Project Schedule Risk (Time Crunch): A task not finishing accordingly to scheduled deadlines or longer delay period than expected.</p>	Personal, Environmental, Technical	HIGH	HIGH Delays take longer to finish, increasing budgets, project crunches, low performance, and unprofessional impression.	HIGH	<ul style="list-style-type: none">• Using PM tools<ul style="list-style-type: none">➤ Gantt Chart➤ Work Breakdown Structure➤ Milestone Planning• Progress Monitoring• Overestimating the time to complete tasks in planning.• If encountered, find how to reduce remaining tasks' duration without reducing quality.

Risk Management

Risks and its Synopsis	Type of Risk	Probability to happen	Impacts	Rank	Risk Prevention Plan
<p>➤ Scope Creep</p> <p>Project objectives were not well-set/ defined together with clients, stakeholders because of ineffective communication.</p>	Personal	MEDIUM	HIGH Client/ Stakeholders changing/ increasing requirements during mid-project, leading to chaos in project planning and failure.	MEDIUM	<ul style="list-style-type: none">• Clear, determined project objectives from the initial stages, no changes.• Effective communication with clients• Progress Monitoring

Risk Management

Risks and its Synopsis	Type of Risk	Probability to happen	Impacts	Rank	Risk Prevention plan
<p>➤ Technical Loss Risks</p> <p>Devices used for documentation have risks of not only being stolen/ robbed but also crashing/ getting malware attacks from online and files getting corrupted.</p>	Technical	MEDIUM	HIGH Documents crucial for project can be lost/ corrupted, causing delay in project and previously completed task have to be accomplished again.	LOW	<ul style="list-style-type: none">• Back up with<ul style="list-style-type: none">➤ Cloud storages like Google drive, Mega, One drive.➤ External USB with no viruses➤ Another storage drive of the device. <p>If encountered, loss should be honestly reported to supervisors and organization to restart processes.</p>

Risk Management

Risks and its Synopsis	Type of Risk	Probability to happen	Impacts	Rank	Risk Prevention plan
<p>➤ Natural Disasters</p> <p>Natural disasters like Earthquake can cause documentation's devices to be destroyed.</p>	Environmental	LOW	HIGH Documents crucial for project can be hard to retrieve from device or destroyed, having to restart the entire project.	LOW	<ul style="list-style-type: none">• Back up with<ul style="list-style-type: none">➤ Cloud storages like Google drive, Mega, One drive.➤ External USB with no viruses <p>If encountered, loss should be honestly reported to supervisors and organization to restart processes.</p>

Risk Management

Risks and its Synopsis	Type of Risk	Probability to happen	Impacts	Rank	Risk Prevention plan
<p>➤ Accidental deletion</p> <p>Someone can accidentally delete the project documentation by mistake.</p>	Personal	LOW	HIGH Documents crucial for project can be destroyed, if not recovered with tools in time.	LOW	<ul style="list-style-type: none">• Back up with<ul style="list-style-type: none">➤ Cloud storages like Google drive, Mega, One drive.➤ External USB with no viruses• Another storage drive of the device.• Using proper naming convention• Having a file recovery tool in advance. <p>If encountered, loss should be honestly reported to supervisors and organization to restart processes.</p>

Literature Review

- Database Concepts
- Database Management Systems
- Case Study Analysis on similar businesses:
 1. Apex Auto Service Co., LTD
 2. Repair Smith Mobile Auto Repair Service
 3. Star Car Wash
- Methodologies
- Information System Theory



Feasibility Study

- Social Analysis
- Technical Analysis
- Cost-Benefits Analysis
- No Go, Go Decision



Social Analysis

User employee	Impacts of the system on their jobs
Manager/ Owner	<p><u>Negative</u></p> <ul style="list-style-type: none">- Limited knowledge = training needed.- Unfamiliarity with new system = increase workload, pressure <p><u>Positive</u></p> <ul style="list-style-type: none">- Easier in recording details and scheduling for bookings,- keeping records of customers and repair costs,- monitoring employee performance & customer complaints/suggestions
Repair Technician/ Mechanic	<p><u>Positive</u></p> <ul style="list-style-type: none">- Fairly assigned tasks, get training and supervised with customers' booking feedback on performance.- Function to keep customer updated with service progress.

Social Analysis

User employee	Impacts of the system on their jobs
Detailer Technician	Positive <ul style="list-style-type: none">- fairly assigned tasks, gaining precise information about booked customers for Home service/ Pick up service methods, get training and supervised with customers' feedbacks, function to keep customer updated with service progress.
Service Manager	Positive <ul style="list-style-type: none">- customer's feedback for supervision and improvement in services, trainings for low-performing service technicians, ability to gain feedback on Home services technicians' performance Negative <ul style="list-style-type: none">- Training must be provided,- Reduced Service managers' productivity from customer complaints if most fellow technicians performed badly.

Social Analysis

User employee	Impacts of the system on their jobs
Receptionist/ Admin staff	<p><u>Positive</u></p> <ul style="list-style-type: none">- Admin staffs perform customer relationship management activities easier.- Perform after-sales services easily.- Reduced workload to answer all the contacts.

Technical Analysis

Hardware, Software, Misc requirement for each branches		
Hardware	Software	Other/ Misc
<ul style="list-style-type: none">➤ 2 Core i3 CPU, 4GB ram, 650W PSU, 500GB HDD office PC Rigs (with PC, Mouse, Keyboard)➤ Ethernet Cables➤ 1 printer➤ Budget android phones for Home service/ Pick up service team who don't own mobile with touch screen	<ul style="list-style-type: none">➤ Windows 10 Pro➤ A browser app➤ Subscriptions for website hosting➤ Domain	<ul style="list-style-type: none">➤ Internet Service Provider plan and router➤ Backup inverter/ Power station for electrical outages

Cost Benefit Analysis

Development Cost			
<u>Item</u>	<u>Quantity</u>	<u>Costs in dollar</u>	<u>Total in dollar</u>
Core i3 CPU, 4GB ram, 650W PSU, 500GB HDD office PC Rigs (with PC, Mouse, Keyboard)	6	\$ 420	\$ 2,520
Internet Service Provider installation	3	\$ 30	\$ 90
Canon MF743Cdw All-in-One Printer	3	\$ 600	\$ 1,800
Android Mobile phones for Home service/ Pick up service teams (optional*)	15	\$ 200	\$ 3,000
Backup power station for router	3	\$ 200	\$ 600
System Development Fees	1	\$ 1500	\$ 1,500
Booking System Training Fees	3	\$ 300	\$ 900
Windows 10 Pro	6	\$ 200	\$ 1200
Total Development Cost		\$ 8,610 to \$ 11,610	
Operational Costs (for 1 year)			
<u>Item</u>	<u>Costs per month in dollar</u>		<u>Total in dollar</u>
Internet Service Provider Subscription	\$ 150		\$ 1,800
Web hosting Subscription + Domain	\$ 100		\$ 1,200
Total Operational Cost (for 1 year)		\$ 3,000	

Cost Benefit Analysis

Benefits	
<u>Tangible Benefits (for 1 year)</u>	
Decrease expenses (reduced administrative and transactional fees)	\$ 3,500
Increase in sales and profits, Reduced garage space unavailability due to booking management system for both Garage services and Home/ Pickup services) (estimated.)	\$ 25,630
<u>Intangible Benefits</u>	
Streamlined and convenient services	
Un-overwhelming/ Fairly scheduled work tasks	
Improved Productivity	
Easier to offer after-sales services/ keeping in touch with customers	
Improved customer retention/ loyalty	
Work Efficiency in accepting bookings, managing bookings and scheduling for workers	
Transparency of processes and services between business and customers	
Well-managed Garage Space in branches	
Total Benefits	\$ 29,130

Cost Benefit Analysis

<u>Net Benefits</u>
= Benefits (for 1 year) – Development cost (for 1 year)
= \$ 29,130 - \$ 11,610
= \$ 17,520

<u>Return of Investment %</u>
= [Net Benefits / Development cost (for 1 year)] x 100
= (\$ 17,520 / \$ 11,610) x 100
= 151%

<u>Payback Period</u>
= Development Cost (for 1 year) / Net Benefits
= \$ 11,610 / \$ 17,520
= 0.66 (approximately over 7 months)

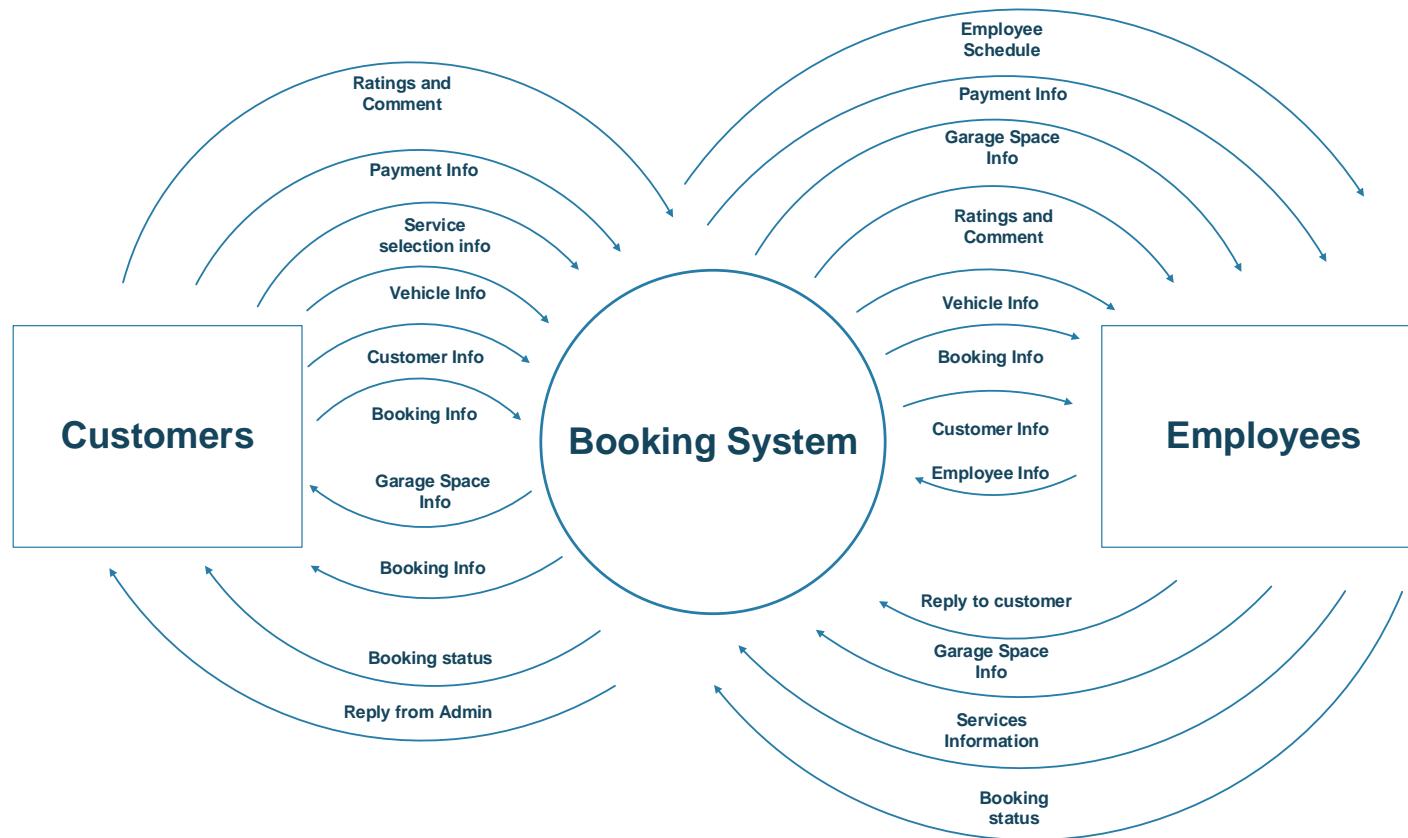
No Go, Go Decision

<u>Criteria</u>	<u>Description</u>	<u>Yes</u>	<u>No</u>
Acceptance by users	Social Analysis had mostly positive impacts on the employees. The customers are also most likely to accept the change, due to convenience in making Bookings, eliminate queueing time mostly and transparency in viewing services, stages of on-services.	✓	
Compatibility for business expansion	Have ability to scale up with business. The new proposed system can easily support new branches or new services and increased workers.	✓	
Impact in Operation efficiency, Productivity and Quality Controlling	Can make majority of job roles to be more efficient and maintain productivity. Rating and comment sections will help service quality, worker performance to be better.	✓	
More Benefits compared to Costs	Tangible benefits > the costs (By \$ 17,520). Intangible benefits from the proposed system can help solve the current business problems significantly.	✓	
Return of Investment > 70% per year	The profit return by implementing the system will double up the amount invested (150% ROI).	✓	
Payback Period < 2 years	Will take the business over 7 months to fully recover their financial investment for the system. (0.66).	✓	

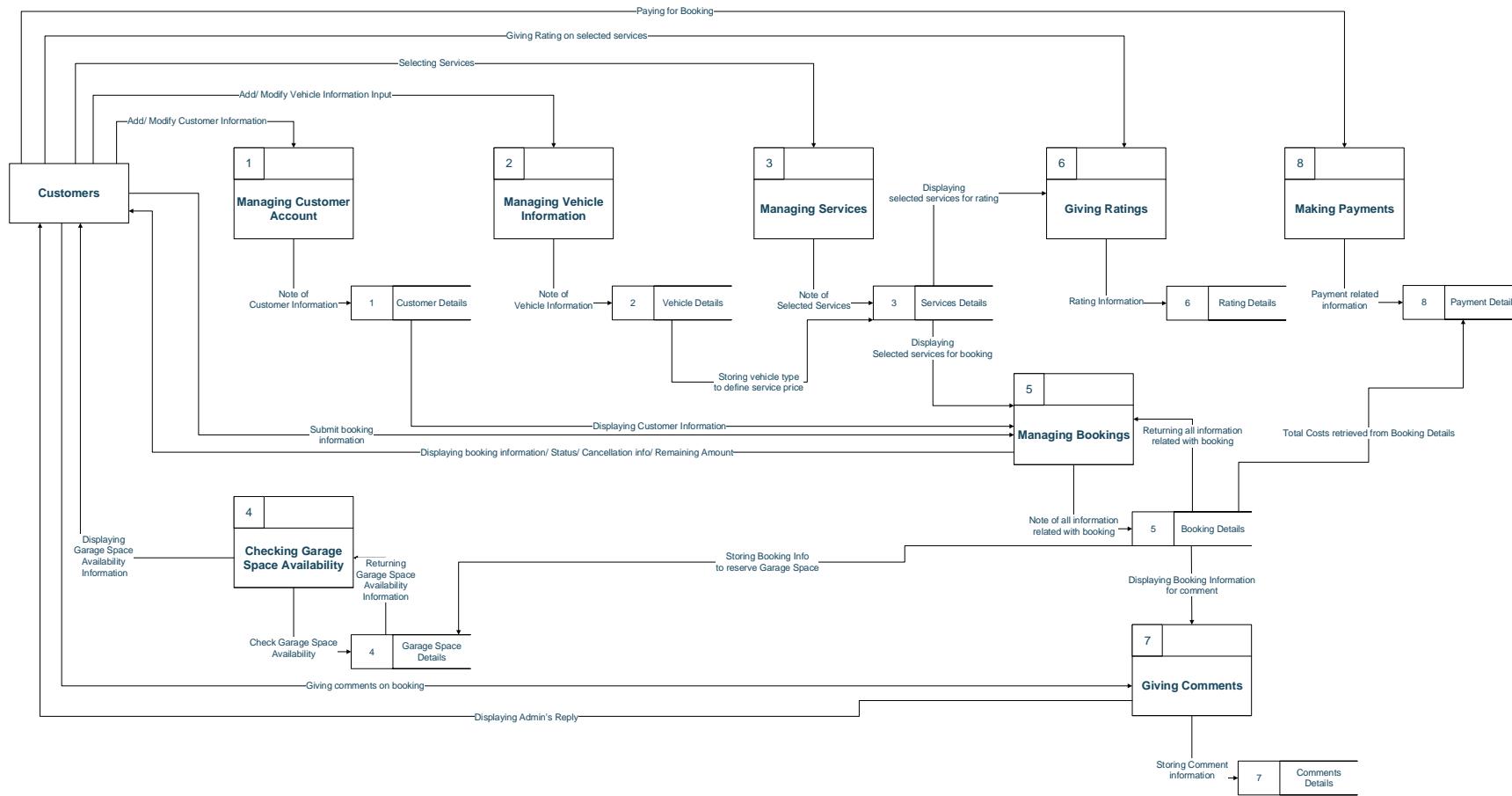
Fact-Finding

Date	Info Gathering Method	Person	Questions/ Activity
1 st Oct, 2022	Interview	Manager	<ul style="list-style-type: none">-May I know about the background, history of AutoCare company?-Aims or Goals for the AutoCare company in the future?-What kind of services are offered in AutoCare?-How many employees are in AutoCare company? Their roles and how they are positioned for operations?-additional questions during interview
3 rd Oct, 2022	Interview	Manager	<ul style="list-style-type: none">-Is there any issues that AutoCare company experiencing? What are they?-Previous attempts, Ideas that stakeholders had to resolve the issues-More detailed questions according to answer on issues-More detailed questions according to their needs to resolve issues-additional questions during interview
5 th Oct, 2022	Observation	Employees	Activity process starting from customer booking, Drive-in to servicing, making payments and after sales activities

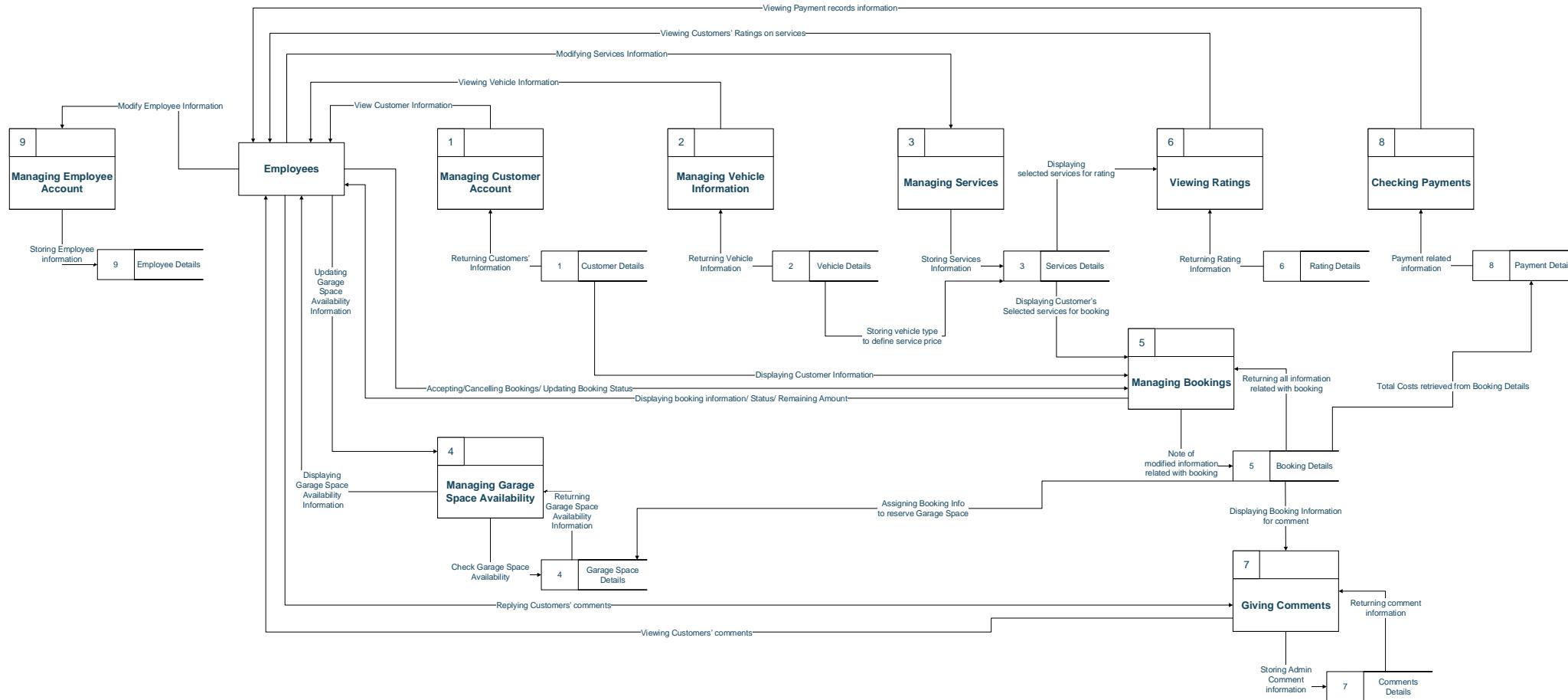
Context Diagram



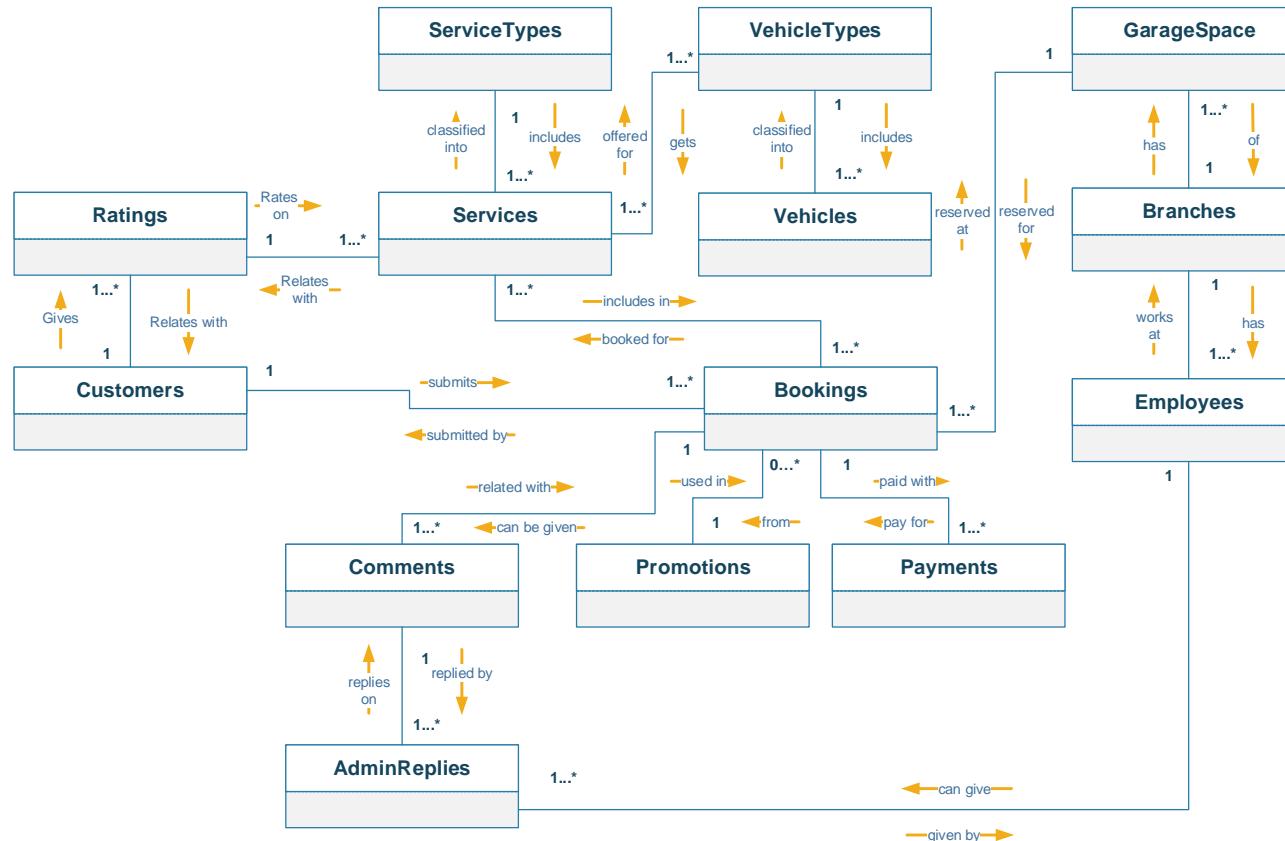
Data Flow Diagrams (Customer side)



Data Flow Diagrams (Employees side)



Entity Relationship Diagram (w/o dummy tables)



Normalization

Normalization on Process of customer making, submitting and paying for a booking

UNF	Lvl	1NF	2NF	3NF
(Customer Name)	1	(Booking No) (PK)	(Booking No) (PK)	(Customer ID) (PK)
(Customer Phone)	1	(Customer Name)	(Customer Name)	(Customer Name)
(Customer Email)	1	(Customer Phone)	(Customer Phone)	(Customer Phone)
(Customer Address)	1	(Customer Email)	(Customer Email)	(Customer Email)
(Vehicle Name)	1	(Customer Address)	(Customer Address)	(Customer Address)
(Vehicle Type)	1	(Vehicle Name)	(Vehicle Name)	
(Vehicle Type Desc)	1	(Vehicle Type)	(Vehicle Type)	
(Vehicle Model)	1	(Vehicle Type Desc)	(Vehicle Type Desc)	
(License No)	1	(Vehicle Model)	(Vehicle Model)	
(Vehicle Image)	1	(License No)	(License No)	
(Primary Color)	1	(Vehicle Image)	(Vehicle Image)	
(Primary Color)	1	(Primary Color)	(Primary Color)	
(Service Type Name)	1	(Service Type Desc)	(Service Type Desc)	
(Service Type Desc)	1	(Service Name)	(Service Name)	
(Service No)	2	(Booking Date)	(Booking Date)	
(Service Name)	2	(Served Location)	(Served Location)	
(Service Desc)	2	(Booking Start Time)	(Booking Start Time)	
(Service Duration)	2	(Booking End Time)	(Booking End Time)	
(Service Status)	2	(Total Costs)	(Total Costs)	
(Service Price)	2	(Promotion Code)	(Promotion Code)	
(Booking No) (PK)	1	(Promotion Discount)	(Promotion Discount)	
(Booking Date)	1	(Amount)	(Amount)	
(Served Location)	1	(Net Costs)	(Net Costs)	
(Booking Start Time)	1	(Remaining Amount)	(Remaining Amount)	
(Booking End Time)	1	(Payment Method)	(Payment Method)	
(Total Costs)	1	(Payment Date)	(Payment Date)	
(Promotion Code)	1	(Branch No)	(Branch No)	
(Promotion Discount Amount)	1	(Branch Location)	(Branch Location)	
		(Garage Space No)	(Garage Space No)	
		(Booking No) (FK)	(Booking No)	
		(Service No)	(Service No)	

(Net Costs) (Remaining Amount)	1	(Service Name) (Service Desc)	(Payment Amount) (Branch No)	(Net Costs) (Remaining Amount)
(Payment Method)	1	(Service Duration)	(Branch Location)	(Promotion ID) (PK) (Promotion Code)
(Payment Date)	1	(Service Price)	(Garage Space No)	(Payment ID) (PK) (Booking ID) (FK)
(Payment Amount)	1			(Payment Method) (Payment Date) (Payment Amount)
(Branch No)	1			(Branch ID) (PK) (Branch No)
(Branch Location)	1			(Branch Location)
(Garage Space No)	1			(Garage Space ID) (PK) (Branch ID) (FK) (Garage Space No)
				(Booking No) (PK,FK) (Service No) (PK,FK)
				(Booking No) (Service Name) (Service Desc) (Service Duration) (Service Status) (Service Price)
				(Service No) (PK,FK) (Vehicle Type ID) (PK,FK)
				(Service No) (PK) (Service Type ID) (FK) (Vehicle Type ID) (FK)
				(Service No) (PK) (Service Type Name) (FK) (Service Name) (Service Desc) (Service Duration) (Service Status) (Service Price)
				(Service Type ID) (PK) (Service Type Name) (Service Type Desc)

Entities retrieved from normalization

Customers,
VehicleTypes,
Vehicles,
Bookings,
Payments,
Branches,
GarageSpaces,
BookedServices,
VehicleTypeServices,
Services,
ServiceTypes

Normalization

Normalization on Process of customer giving rating

UNF	Lvl	1NF	2NF	3NF
(Customer ID) (PK)	1	(Customer ID) (PK)	(Customer ID) (PK)	(Customer ID) (PK)
(Customer Name)	1	(Customer Name)	(Customer Name)	(Customer Name)
(Customer Phone)	1	(Customer Phone)	(Customer Phone)	(Customer Phone)
(Customer Email)	1	(Customer Email)	(Customer Email)	(Customer Email)
(Customer Address)	1	(Customer Address)	(Customer Address)	(Customer Address)
(Service No)	2	(Customer ID) (FK)	(Rating ID) (PK)	(Rating ID) (PK)
(Service Name)	2	(Service No)	(Customer ID) (FK)	(Customer ID) (FK)
(Service Desc)	2	(Service Name)	(Service No)	(Service No) (FK)
(Service Duration)	2	(Service Desc)	(Service Name)	(Rating Amount)
(Service Status)	2	(Service Duration)	(Service Desc)	(Rating Date)
(Service Price)	2	(Service Status)	(Service Duration)	
(Rating ID)	2	(Service Price)	(Service Status)	(Service No) (PK)
(Rating Amount)	2	(Rating Amount)	(Service Price)	(Service Name)
(Rating Date)	2	(Rating Date)	(Rating Amount)	(Service Desc)

Entities retrieved from normalization

Customers, Ratings, Services

Normalization

Normalization on Process of giving comment on booking and admin replying on comment

UNF	Lvl	1NF	2NF	3NF
(Booking ID) (PK)	1	(Booking ID) (PK)	(Booking ID) (PK)	(Booking ID) (PK)
(Comment Text)	2			
(Comment	2			
Timestamp)		(Booking ID) (FK)	(Comment ID) (PK)	(Comment ID) (PK)
(Employee ID)	2	(Comment Text)	(Booking ID) (FK)	(Booking ID) (FK)
(Employee Name)	2	(Comment	(Comment Text)	(Comment Text)
(Reply Text)	2	Timestamp)	(Comment	(Comment
(Reply Timestamp)	2	(Employee ID)	Timestamp)	Timestamp)
		(Employee Name)	(Reply ID) (PK)	(Reply ID) (PK)
		(Reply Text)	(Comment ID) (FK)	(Comment ID) (FK)
		(Reply Timestamp)	(Employee ID)	(Employee ID) (FK)
			(Employee Name)	(Reply Text)
			(Reply Text)	(Reply Timestamp)
			(Reply Timestamp)	(Employee ID) (PK)
				(Employee Name)

Entities retrieved from normalization

Bookings, Comments, AdminReplies, Employees

User Interface Designs screens (Customers – Home)

AUTOCARE Book now! Services News/Events About Us Contact Us Sign up/ Log in

AUTOCARE

Always taking care of your cars...

Looking for a car workshop near you for Car cleaning services and Maintenance?
AUTOCARE brings the shop to you.

[Book for services](#)



AUTOCARE

Always taking care of your cars...

[Book for services](#)

Addresses

[1] Pansoedan : No.(23), Lorem ipsum dolor sit amet consectetur.
[2] North Dagon: No.(15), Lorem ipsum dolor sit amet consectetur.
[3] South Oakkala: No.(3), Lorem ipsum dolor sit amet consectetur.

Phones

01-1234567,09-23567865
01-6543215,09-15474573
01-6246715,09-46347865

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Interactive Prototype link: <https://www.figma.com/file/TsohuXLidbsSzOn4WyFmfA/AUTOCARE-Booking-System-Prototype-Test?node-id=0%3A1&t=A7A1SmRmhQDK5gDx-1>

User Interface Designs screens (Customers – Service Types)

AUTOCARE

Book now! Services News/Events About Us Contact Us Welcome! CiCi289

Home > Service Types

Please select your preferred Type of service...



Home **Pick up** **In Garage**

For home services, we will send workers to your home to serve you with a range of cleaning services.

- Car Wash
- Car Polish
- Interior Cleaning
- Waxing

By visiting our branches garage, we will be able to offer a broader range of services such as Car Maintenance and Repairing.

- 3D Wheel Alignment Service
- Tyre Changing and Repairing
- Engine Oil & Filters Changing
- Battery Changing
- Car Air-conditioning
- Shock Absorber Repairing
- Brake Shoe Changing and Repairing
- Car Wash
- Car Polish
- Interior Cleaning
- Waxing

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Addresses
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[2] North Dagon: No.(15), Lorem ipsum dolor sit amet consectetur.
[3] South Oakkala: No.(3), Lorem ipsum dolor sit amet consectetur.

Phones
01-1234567.09-23567865
01-6543215.09-15474573
01-6246715.09-46347865

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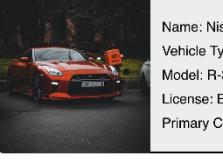
User Interface Designs screens (Customers – Car & Services)

AUTOCARE

[Book now!](#) [Services](#) [News/Events](#) [About Us](#) [Contact Us](#)  Welcome!
CIC1289

Home > Service Types > Cars & Services

Please select your car...



Name: Nissan GT-R
Vehicle Type: Regular
Model: R-35
License: BP 7777
Primary Color: Crimson Red

Please select desired In-Garage services for your car...

Car Wash Tyre Changing and Repairing

Car Polish Engine Oil and Filters Changing

Interior Cleaning Battery Changing

Waxing Car Air-Conditioning

3D Wheel Alignment Shock Absorber Repairing

Brake shoes Changing and Repairing

Est Total Cost: MMK 50,000

[<< Back to Service Types](#) [Proceed to Choose Date, Time & Branch >>](#)

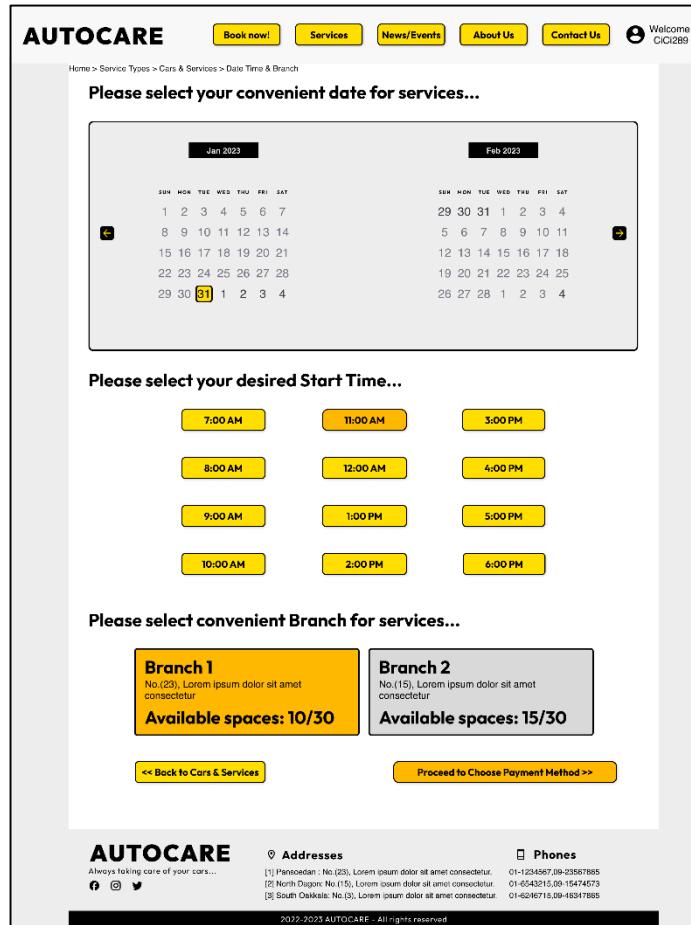
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Addresses
[1] Parsoeden : No.(23), Lorem ipsum dolor sit amet consectetur.
[2] North Daigon: No.(15), Lorem ipsum dolor sit amet consectetur.
[3] South Oakall: No.(3), Lorem ipsum dolor sit amet consectetur.

Phones
01-1234567, 09-23567895
01-6543210, 09-15474573
01-6246715, 09-48347865

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User Interface Designs screens (Customers – Date, Start Time and Branch)



User Interface Designs screens (Customers – Payment)

AUTOCARE

Book now! Services News/Events About Us Contact Us

Welcome!
CiCi289

Home > Service Types > Cars & Services > Date Time & Branch > Payments

Please select your preferred payment method...

 Cash Only

 CB PAY >

 KBZ PAY >

 WAVE PAY >

Please select payment type...

Full Payment

Partial Payment

Booking Summary

Branch 1
No.(23), Lorem ipsum dolor sit amet consectetur.

31st January 2023
11:00 AM

Car Wash	MMK 5,000
Car Polish	MMK 25,000
Interior Cleaning	MMK 20,000
SubTotal	MMK 50,000
Discount	(-MMK 5,000)
Net Costs	MMK 45,000

Add Promo Code:

<< Back to Date Time & Branch Submit Booking ✓

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Addresses Phones

[1] Pansoedan : No.(23), Lorem ipsum dolor sit amet consectetur. 01-1234567,09-23567985
[2] North Dagon : No.(15), Lorem ipsum dolor sit amet consectetur. 01-6543215,09-15474573
[3] South Oakkala: No.(3), Lorem ipsum dolor sit amet consectetur. 01-8246715,09-46347865

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User Interface Designs screens (Customers – Sign up)

AUTOCARE

[Book now!](#) [Services](#) [News/Events](#) [About Us](#) [Contact Us](#) [Sign up/ Log in](#)

Account Sign Up

Sign up a new AUTOCARE account to start booking for services!
Already have an account? [Log in Here.](#)

Name

Email

Password

Phone

Address

Address (Township)

By checking this button, you Agree to [Privacy Policy](#) and [Terms of Use](#).

[Sign up new account](#)

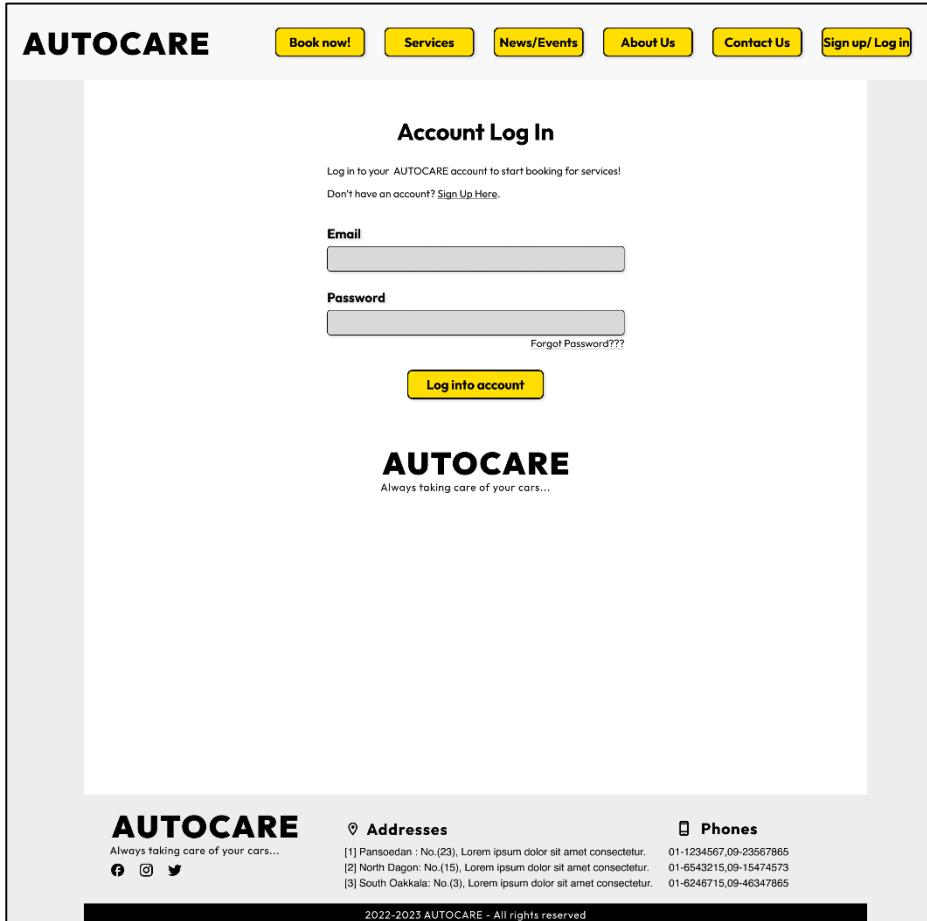
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Addresses
[1] Pansoedan : No.(23), Lorem ipsum dolor sit amet consectetur.
[2] North Dagon: No.(15), Lorem ipsum dolor sit amet consectetur.
[3] South Oakkala: No.(3), Lorem ipsum dolor sit amet consectetur.

Phones
01-1234567,09-23567865
01-6543215,09-15474573
01-6246715,09-46347865

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User Interface Designs screens (Customers – Log in)



The image shows a screenshot of the Autocare customer login page. At the top, there is a navigation bar with the Autocare logo on the left and links for Book now!, Services, News/Events, About Us, Contact Us, and Sign up/ Log in. Below the navigation bar is a central form titled "Account Log In". The form includes instructions to "Log in to your Autocare account to start booking for services!" and a link to "Sign Up Here.". It features two input fields: "Email" and "Password", both with placeholder text and "Forgot Password???" links. A yellow "Log into account" button is positioned below the password field. At the bottom of the page, the Autocare logo is displayed again with the tagline "Always taking care of your cars...". The footer contains social media icons for Facebook, Instagram, and Twitter, along with sections for "Addresses" and "Phones" containing placeholder address and phone number lists.

AUTOCARE

Book now! Services News/Events About Us Contact Us Sign up/ Log in

Account Log In

Log in to your Autocare account to start booking for services!

Don't have an account? [Sign Up Here.](#)

Email

Password [Forgot Password???](#)

Log into account

AUTOCARE
Always taking care of your cars...

AUTOCARE
Always taking care of your cars...
[Facebook](#) [Instagram](#) [Twitter](#)

Addresses

[1] Pansoedan : No.(23), Lorem ipsum dolor sit amet consectetur.
[2] North Dagon: No.(15), Lorem ipsum dolor sit amet consectetur.
[3] South Oakkala: No.(3), Lorem ipsum dolor sit amet consectetur.

Phones

01-1234567,09-23567865
01-6543215,09-15474573
01-6246715,09-46347865

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User Interface Designs screens (Customers – Account information)

The screenshot shows the AUTO CARE customer account information page. At the top, there is a navigation bar with links for Book now!, Services, News/Events, About Us, Contact Us, and a welcome message for user CiCi289. Below the navigation bar are three yellow buttons: Account Information (with a user icon), Vehicle Information (with a car icon), and Booking & History (with a calendar icon). The main content area is titled "Account Profile Information" and includes fields for Name, Phone, Email, and Address, each with a corresponding input field. There is also a "Log out of account" button. At the bottom, there is a footer section with the AUTO CARE logo, social media links (Facebook, Instagram, Twitter), addresses for three locations, and a phone number. A copyright notice at the very bottom states "2022-2023 AUTO CARE - All rights reserved".

AUTOCARE

Welcome! CiCi289

Account Profile Information

Name: CiCi289

Phone: 09756970487

Email: cihtinaung289.cha@gmail.com

Address: Building. 15/ 201, Lorum Ipsum Street,
Lacidame township, Coriem.

Log out of account

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Addresses

[1] Pansedan - No.(23), Lorem ipsum dolor sit amet consectetur.
[2] North Dagon: No.(15), Lorem ipsum dolor sit amet consectetur.
[3] South Oakkala: No.(3), Lorem ipsum dolor sit amet consectetur.

Phones

01-1234567-09-23567865
01-6543215-09-15474573
01-6246715-09-46347865

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User Interface Designs screens (Customers – Vehicle Information)

The screenshot displays the AUTO CARE website's customer portal for vehicle management. At the top, a navigation bar includes links for Book now!, Services, News/Events, About Us, Contact Us, and a user profile section. Below the navigation is a row of three yellow buttons: Account Information, Vehicle Information, and Booking & History. The main content area features a section titled "Vehicle Information" with a thumbnail image of a red Nissan GT-R. To the right of the image, vehicle details are listed: Name: Nissan GT-R, Vehicle Type: Regular, Model: R-35, License: BP 7777, and Primary Color: Crimson Red. There are also "Edit" and "Delete" links. Below this, an "Add new Vehicle" form is shown with fields for Vehicle Name, Model, Primary Color, Vehicle Type, License Number, and Vehicle Image (with a "Browse..." button). A large yellow "Add new Vehicle" button is at the bottom of the form. At the very bottom of the page, there is footer information including addresses, phones, and social media links.

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Book now! Services News/Events About Us Contact Us Welcome! CiCi289

Vehicle Information

Name: Nissan GT-R
Vehicle Type: Regular
Model: R-35
License: BP 7777
Primary Color: Crimson Red

Add new Vehicle

Vehicle Name:
Model:
Primary Color: Vehicle Type:

License Number:
Vehicle Image:

Add new Vehicle

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Facebook Twitter

Addresses
[1] Pansoedan : No.(23), Lorem ipsum dolor sit amet consectetur.
[2] North Dagon: No.(15), Lorem ipsum dolor sit amet consectetur.
[3] South Oakkala: No.(3), Lorem ipsum dolor sit amet consectetur.

Phones
01-1234567, 09-23567865
01-6543215, 09-15474573
01-6246715, 09-46347865

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User Interface Designs screens (Customers – Booking History)

AUTOCARE

Book now! Services News/Events About Us Contact Us Welcome! CICI289

Account Information **Vehicle Information** **Booking & History**

On-Going Bookings

No.	Booking ID	Date & Time	Vehicle	Service Type	Services	Net Costs	Booking Status
1	Bk-003	2-2-2023 (10:00 AM)	Nissan GT-R	In-Garage	Car Wash Interior Cleaning	10,000	Work in Progress >

Booking History

No.	Booking ID	Date & Time	Vehicle	Service Type	Services	Net Costs	Payment Status
1	Bk-002	31-1-2023 (11:00 AM)	Nissan GT-R	In Garage	Car Wash Car Polish Interior Cleaning	45,000	Fully Paid ▾
1	Bk-001	15-1-2023 (9:00 AM)	Nissan GT-R	In Garage	Car Wash	7,000	Fully Paid ▾

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[Facebook](#) [Instagram](#) [Twitter](#)

Addresses
[1] Pansedan : No.(23), Lorem ipsum dolor sit amet consectetur.
[2] North Dagon: No.(15), Lorem ipsum dolor sit amet consectetur.
[3] South Cokkala: No.(3), Lorem ipsum dolor sit amet consectetur.

Phones
01-1234567.09-23567865
01-6543215.09-15474573
01-6246715.09-46347865

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User Interface Designs screens (Employees – Home/ Customers)

AUTOCARE

Welcome!
Admin1 [Sign Out >](#)

[Customers >](#) [Bookings >](#) [Garage & Spaces >](#) [Services & Types >](#) [Vehicles & Types >](#) [Ratings >](#) [Comments >](#) [Promotions >](#) [Payments >](#) [Employees >](#)

List of Customers [Date & Time ...](#) [Filter by ...](#) [Sort by ...](#) [Export/Print](#)

CustomerID	Name	Phone	Email	Address	Update	Delete
Cus-001	CiCi289	09756970487	cihtinaung289.cha@gmail.com	Building. 15/ 201, Lorum ipsum...		
Cus-002	U Kaung Myat	09894060654	KaungMyat654@gmail.com	Building. 35/ 101, Kant Kaw Street,...		
Cus-003	Kyaw Htay	09894135074	KyawH074.kh@gmail.com	Building. 21/ 201, Sapal Street,...		
Cus-004	U Mya Thaung	09752465865	MThaung123.mt@gmail.com	Building. 35/ 101, ZiZaWah Street,...		
Cus-005	U Kyaw Thinn	09765352475	KoKyawThinn.154@gmail.com	Building. 25/ 101, 140th Street,...		

Add new Customer

Name Email

Phone Password

Address Address (Township)

[Cancel](#) [Add](#)

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User Interface Designs screens (Employees – Top spending customers)

AUTOCARE

Welcome!
Admin1 [Sign Out >](#)

[Customers >](#) [Bookings >](#) [Garage & Spaces >](#) [Services & Types >](#) [Vehicles & Types >](#) [Ratings >](#) [Comments >](#) [Promotions >](#) [Payments >](#) [Employees >](#)

List of Customers For: January 2023 Filter by: Spending Sort by: Largest to Smallest Search... [Export/Print](#)

CustomerID	Name	Phone	Email	Address	Spending (MMK)
Cus-001	CiCi289	09756970487	cihtinaung289.cha@gmail.com	Building. 15/ 201, Lorum Ipsum...	50,000
Cus-003	Kyaw Htay	09894135074	KyawH074.kh@gmail.com	Building. 21/ 201, Sapal Street,...	30,000
Cus-004	U Mya Thaung	09752465865	MThaung123.mt@gmail.com	Building. 35/ 101, ZiZaWah Street,...	20,000
Cus-002	U Kaung Myat	09894060654	KaungMyat654@gmail.com	Building. 35/ 101, Kant Kaw Street,...	15,000
Cus-005	U Kyaw Thinn	09765352475	KoKyawThinn.154@gmail.com	Building. 25/ 101, 140th Street,...	10,000

Add new Customer

Name Email

Phone Password

Address Address (Township)

[Cancel](#) [Add](#)

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User Interface Designs screens (Employees – Bookings)

AUTOCARE

Welcome! Admin1 [Sign Out >](#)

[Customers >](#) [Bookings >](#) [Garage & Spaces >](#) [Services & Types >](#) [Vehicles & Types >](#) [Ratings >](#) [Comments >](#) [Promotions >](#) [Payments >](#) [Employees >](#)

List of Submitted Bookings Date & Time ... Filter by ... Sort by ... Search...

BookingID	Customer Name	Date	Time	Type	Branch Services	Net Cost	Accept	Cancel	Manage
Bk-004	Kyaw Htay	3-2-2023	10:00 AM	In-Garage	Br-1 Car Wash	5,000	✓	✗	Details
Cancellation reason (if): <input type="text"/> Booking Status: <input type="button" value=""/> Manual Assign to Garage Space No: <input type="button" value="1"/>									
Bk-005	U Kaung Myat	1-1-2023	5:00 PM	In-Garage	Br-2 Car Wash Oii Change	15,000	✓	✗	Details
Bk-006	U Mya Thaung	5-1-2023	11:00 AM	Home	- Car Wash Interior Cleaning	10,000	✓	✗	Details

[Export/Print](#)

[Create New Booking](#)

List of On-Going Bookings Date & Time ... Filter by ... Sort by: recent Search...

BookingID	Customer Name	Date	Time	Type	Branch Services	Net Cost	Manage	Status
Bk-003	CiCi289	2-2-2023	10:00 AM	In-Garage	Br-1 Car Wash Interior Cleaning	10,000	Details	Work in Progress

Estimated End Time:

[Export/Print](#)

List of Previous Bookings Date & Time ... Filter by ... Sort by: recent Search...

BookingID	Customer Name	Date	Time	Type	Branch Services	Net Cost	Manage	Status
-----------	---------------	------	------	------	-----------------	----------	--------	--------

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User Interface Designs screens (Employees – Branch, Garage & Spaces)

AUTOCARE

Welcome! Admin1 [Sign Out >](#)

[Customers >](#) [Bookings >](#) [Garage & Spaces >](#) [Services & Types >](#) [Vehicles & Types >](#) [Ratings >](#) [Comments >](#) [Promotions >](#) [Payments >](#) [Employees >](#)

Garage Spaces and Status Branch-1 2-2-2023 10:00 AM Search... [Add New Branch](#)

Branch : 1
Name : PaZunTaung Branch
Location : No.(23), Lorem ipsum dolor sit amet consectetur.

Available Spaces: 14/15

Garage Spaces [Add new Garage Spaces](#)

Space Number	Status	Notes
1	Red	Bk-003 10:00 AM-12:30 PM Set as Free ✓
2	Green	- Set as Taken ✗
3	Green	- Set as Taken ✗
4	Green	- Set as Taken ✗
5	Green	- Set as Taken ✗
6	Green	- Set as Taken ✗
7	Green	- Set as Taken ✗
8	Green	- Set as Taken ✗
9	Green	- Set as Taken ✗
10	Green	- Set as Taken ✗
11	Green	- Set as Taken ✗
12	Green	- Set as Taken ✗
13	Green	- Set as Taken ✗
14	Green	- Set as Taken ✗
15	Green	- Set as Taken ✗

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User Interface Designs screens (Employees – Services & Types)

AUTOCARE

Welcome!
Admin1 [Sign Out >](#)

[Customers >](#) [Bookings >](#) [Garage & Spaces >](#) [Services & Types >](#) [Vehicles & Types >](#) [Ratings >](#) [Comments >](#) [Promotions >](#) [Payments >](#) [Employees >](#)

Service Types & Services [Filter by ...](#) [Sort by ...](#) [Search...](#)

ServiceID	Service Name	Type	Vehicle Type	Duration	Description	Price	Status	Manage
S-001	Car Wash	In-Garage	compact	00:30	This is car wash for regular car types, done in Garage.	5,000	Active	Edit info
S-002	Car Wash	Home	compact	00:30	This is car wash for compact car types, done at your home.	7,000	Active	Edit info
S-003	Interior Cleaning	In-Garage	compact	00:40	This is interior cleaning for compact car types.	20,000	Active	Edit info

Service Status: [Active](#)

[Export/Print](#)

Service Types

Service Type ID:

Service Type Name:

Service Type Description:

[Add new Service Type](#)

Services

Service ID:

Service Name:

Service Type: [Edit](#)

Vehicle Type: [Edit](#)

Service Description:

Service Duration: Service Status:

[Add new Service](#)

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User Interface Designs screens (Employees – Vehicle Types & Vehicles)

AUTOCARE

Welcome! Admin1 [Sign Out >](#)

[Customers >](#) [Bookings >](#) [Garage & Spaces >](#) [Services & Types >](#) [Vehicles & Types >](#) [Ratings >](#) [Comments >](#) [Promotions >](#) [Payments >](#) [Employees >](#)

Vehicle Types & Vehicles [Filter by ...](#) [Sort by ...](#)

VehicleTypeID	Name	Description	Manage
Vt-001	Compact	Criteria: Smallest overall dimensions, Smaller engine capacity, HP	Edit info
Vt-002	Medium	Criteria: Larger overall dimensions than compact, Similar or Larger engine capacity, HP	Edit info
Vt-003	Van	Criteria: Larger overall dimensions than medium, Larger engine capacity, HP	Edit info
Vt-004	Compact Trucks	Criteria: Larger overall dimensions than mediums, Larger engine capacity, HP, with back storage	Edit info

[Export/Print](#)

Vehicle Types **Vehicles**

Vehicle Type ID:
Vehicle Type Name:
Vehicle Type Description:
[Add new Vehicle Type](#)

Vehicle ID:
Vehicle Name:
Vehicle Type:
Model:
Image: [Browse...](#)
License No.: Primary Color:
[Add new Vehicle](#)

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User Interface Designs screens (Employees – Ratings)

AUTOCARE

Welcome! Admin1 [Sign Out >](#)

[Customers >](#) [Bookings >](#) [Garage & Spaces >](#) [Services & Types >](#) [Vehicles & Types >](#) [Ratings >](#) [Comments >](#) [Promotions >](#) [Payments >](#) [Employees >](#)

Summarized Rating

Filter by ... Sort by ... January 2023 Search...

Service ID	Name	Service Type	Vehicle Type	Ratings	Manage
S-001	Car Wash	In-Garage	Compact	 	
S-002	Car Wash	Home	Compact	 	
S-003	Interior Cleaning	In-Garage	Compact	 	

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Rating History

Filter by ... Sort by ... Date... Search...

Rating ID	Customer ID	Service ID	Ratings	Time Stamp	Manage
Rt-001	Cus-001	S-001	 	20/1/2023-01:23:40 PM	
Rt-002	Cus-001	S-003	 	20/1/2023-01:24:20 PM	
Rt-003	Cus-002	S-001	 	18/1/2023-10:15:40 AM	
Rt-004	Cus-003	S-001	 	18/1/2023-05:10:40 PM	

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User Interface Designs screens (Employees – Comments)

AUTOCARE

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[Customers >](#) [Lists of Comments](#) [Filter by ...](#) [Sort by ...](#) [January 2023](#) [Search...](#)

[Bookings >](#) [Garage & Spaces >](#) [Services & Types >](#) [Vehicles & Types >](#) [Ratings >](#) [Comments >](#) [Promotions >](#) [Payments >](#) [Employees >](#)

Comments History

Comment ID	Booking ID	Ratings	Time Stamp	Manage
Rt-001	B-001	Overall, the services were satisfying.	20/1/2023-01:23:40 PM	Reply
Admin's reply: We are so glad to hear your comment! :) Edit 20/1/2023-01:23:40 PM				
Rt-002	B-001	Overall, the services were satisfying.	20/1/2023-01:24:20 PM	Reply
Reply on Comment: <input type="text"/> Send >				
Rt-003	B-002	Overall, the services were satisfying.	18/1/2023-10:15:40 AM	Reply
Rt-004	B-002	Overall, the services were satisfying.	18/1/2023-05:10:40 PM	Reply

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User Interface Designs screens (Employees – Promotions)

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[Lists of Promotions](#) [Filter by ...](#) [Sort by ...](#) [Date...](#) [Search...](#) [Create New Promotion](#)

Promotions

PromotionID	Promo Code	Discount%	Min. Cost	Description	Start date	End date	Status	Manage
Promo-003	ACValentine	14%	60,000	Promotion event for valentines. Customers with Total spendi...	1/2/2023	28/2/2023	Active	Edit
Promo-002	NYAC	10%	20,000	Promotion event for New Year. Customers with Total Spendi...	26/12/2022	2/1/2022	Ended	Edit
Promo-003	XmasAC	25%	100,000	Promotion event for Christmas. Customers with Total spendi...	25/12/2022	25/12/2022	Ended	Edit

Promo Status: [Active](#)

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User Interface Designs screens (Employees – Payments)

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Lists of Payments [Filter by ...](#) [Sort by ...](#) [Date ...](#)

[Add a payment record](#)

Payment Records

PaymentID	BookingID	Method	Payment Amount	Type	Date	Status	Due Date	Manage
Pay-001	B-006	CB PAY	50,000	Partial	10/1/2023	Partial Payment Required	20/1/2023	Edit/Notify!
Pay-002	B-001	Cash Only	5,000	Full	15/1/2023	Fully Paid	-	Edit
Pay-003	B-002	Cash Only	50,000	Full	31/1/2023	Fully Paid	-	Edit

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User Interface Designs screens (Employees – Employees)

AUTOCARE

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[Customers >](#) [Bookings >](#) [Garage & Spaces >](#) [Services & Types >](#) [Vehicles & Types >](#) [Ratings >](#) [Comments >](#) [Promotions >](#) [Payments >](#) [Employees >](#)

Lists of Employees [Filter by ...](#) [Sort by ...](#) [Date ...](#)

[Add new employee](#)

Employee Records

EmployeeID	Name	Gender	Address	Position	BranchID	DOB	Phone	Manage
Emp-001	Aung Thin	Male	No. 23, Kant Kaw Street..	Manager	Br-1	12/10/1976	09125367846	Edit
Emp-002	Ko Kyaw Khin	Male	No. 213, Wit Kyaung..	Technician	Br-1	12/10/1990	09125367846	Edit
Emp-003	Aung Din	Male	No. 23, Kant Kaw Street..	Admin	Br-1	12/10/1990	09125367846	Edit
Emp-004	Aung Kaung Khant	Male	No. 63/A, Zi Za Wah..	Admin	Br-2	12/10/1990	09125367846	Edit

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Document for Evaluation

No.	Functional Requirements	Design Feature	Degree of Fulfillment			Comments
			Fully Met	Partially Met	Not Met	
1 Customers						
	Create Customer Accounts	Form UI Design SQL Query	✓			
	View Customer Information without passwords	List UI Design SQL Query				
	Update specific Customer Information	List UI Design SQL Query				
	Generate report on most frequently visited customers within 2 months	SQL Query				
	Generate report on top spending customer of month	List UI Design SQL Query				
2 VehicleTypes						
	Add new Vehicle Types	Form UI Design SQL Query	✓			
	View Vehicle Type Information	List UI Design SQL Query				
	Generate report on Most booked vehicle type according to booked services	SQL Query				
3 Vehicles						
	Add new Vehicles	Form UI Design SQL Query				

	View Vehicle Information + Vehicle Type Name	Vehicle List UI Design SQL Query		✓		
	Update Vehicle Information	Vehicle List UI Design SQL Query				
4 ServiceTypes						
	Create New Service Types	Form UI Design SQL Query	✓			
	View Service Type information	Service List UI Design SQL Query				
5 Services						
	Create New Services	Form UI Design SQL Query	✓			
	View Service information according to Vehicle Type and Service Type	Service SQL Query		✓		
	Update Service information	Service List UI Design SQL Query				
	Top 3 Most Booked Services of the month	SQL Query				
6 Bookings						
	Create New Bookings	Form UI Design SQL Query	✓			
	View specific customer's Booking Information	Booking List UI Design SQL Query				
	Update Booking Information for Cancel	Booking List UI Design SQL Query				
	Update Booking Status	Booking List UI Design SQL Query				

Document for Evaluation

	Generate report on Bookings lists for specific date, start time and end time, at specific Branch	SQL Query				
	Generate report on most booked months	SQL Query				
7	Promotions					
	Create new Promotion	List UI Design SQL Query	✓			
	View Promotion information	List UI Design SQL Query				
8	Payments					
	Make/ Record new Payment	Form UI Design SQL Query				
	Generate report on Customers who have remaining 2 nd payment	SQL Query	✓			
	Make/ Record second payment	SQL Query				
	Generate report on Total revenue of month from bookings	SQL Query				
9	Employees					
	Create New Employee Accounts	List UI Design SQL Query	✓			
	View Employee Information in specific branch	List UI Design SQL Query				
	Updating Employee Information	SQL Query				
10	Branches					
	Create Branches	List UI Design				

		SQL Query			
	Updating Available Spaces	Total Form UI Design SQL Query	✓		
11	GarageSpaces				
	Create Garage Space	List UI Design SQL Query			
	View Garage Space according to Branch	List UI Design SQL Query	✓		
	Update Garage Space	List UI Design SQL Query			
12	Ratings				
	Customer Rate on services	List UI Design SQL Query	✓		
	Generate report on Overall ratings of services	List UI Design SQL Query			
13	Comments				
	Customer comment on booking	List UI Design SQL Query	✓		
14	AdminReplies				
	Admins' Reply to Comments	List UI Design SQL Query		✓	
	View all related customer comment & admin replies for a specific booking	SQL Query			

Conclusion (Achievement of Project Objectives)

Projective Objectives	Achieved	Not Achieved
To analyze the business and its goals, current situations, and identify the problems being encountered currently.	✓	
To define a scope for system of the proposed system project, define Aims of project and coherent objectives to achieve the aims and make necessary planning for the project.	✓	
To study and analyze about Database use for the project, evaluate Methodologies, Case Study Analysis about similar products/services and uses of Information Systems.	✓	
To analyze whether the project is feasible enough to implement.	✓	
To start gathering information necessary, designing system and functions for the proposed system.	✓	
To perform Structural, User Interface, Behavioral Designing and Database implementation phase for the proposed system.	✓	
To review and re-evaluate the system whether it meets the needs of AutoCare and their issues.	✓	

Conclusion

Our proposed Online Car Service Booking System will help AUTOCARE in revolutionizing their business, by streamlining the booking process, increasing efficiency, and improving customer satisfaction.

It will not only save AUTOCARE's waste of time and man power, but it will also provide their customers with an unparalleled level of convenience.



Thank you very much for listening to this
proposal till the end!

Have a great day! 