GUJARAT TECHNOLOGICAL UNIVERSITY AHMEDABAD

Affiliated to





SAL Engineering & Technical Institute

A Report on

Restaurant Management System

Under the Subject of

Design Engineering II A (3150001)

B. E. III, Semester-V

Computer Science & Engineering

Submitted By:

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CERTIFICATE

This is to certify that the project report on Restaurant Management System

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As fulfillment of the requirement for the award B.E. in Computer Science & Engineering Department Semester 5th at SAL Engineering & Technical Institute is the record of work that has been successfully and satisfactorily completed under supervision and guidance during the academic year 2023-24.

ABSTRACT

Restaurant Management System

We observe that whenever people wish to eating food in restaurant or a café, they must stand in long queue for reserve table. after some time, they get their table in restaurant, this is not over in weekend there is so much crowd in restaurant that environment of that restaurant is too noisy, because of so much customer in restaurant management faces some issue like wrong order is taken, wrong order is delivered on table, customer get wrong bill, etc. after see this all problem we came up with this idea "RESTAURANT MANAGEMENT SYSTEM". In our model we tried to solve all these problems. user can book table in advance for some limited time. User can get e-menu for order food; e menu is accessible by all member who is using smart phone so there is no problem with exchanging menu card for getting everyone opinion. User can get e-bill also and they can also pay bill via upi apps or cards. User can rate food and services online so management get to know where to improve their service

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Introduction

1.1 Design Thinking

Design thinking is an extension of innovation that allows you to design solutions for end users with a single problem statement in mind it not only imparts skill but can help advance your career.

1.2Importance of design thinking

it can transform how your organisation develops products, services, processes, and strategies. It brings together the *desirability* from the customer's perspective with what is technologically *feasible* and economically *viable*. It also provides various opportunities for people who are not trained as designers to utilise creative tools so that they can tackle a vast range of problems/challenges.

1.3Learning tools and assignments

- ➤ W3schools
- ➤ Udemy
- Coursera

1.4 The idea to make a project

When customer go to restaurant they have to stand in a long queue for reservation of table, after these they have to place order from the menu card but there is only limited menu cards so only limited person can see menu other have to wait for some time. There is possibility that if user want Jain food and Jain food is not available at restaurant.

Empathy Mapping

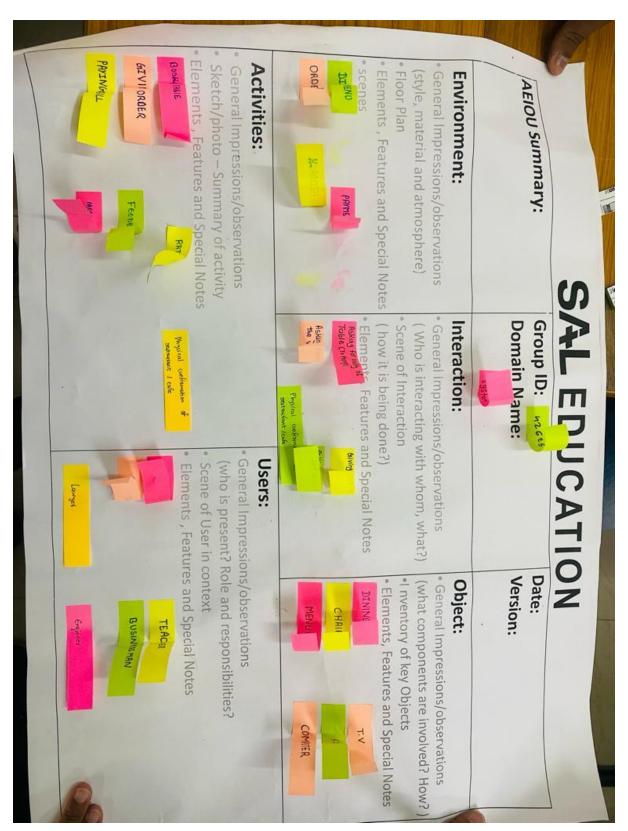
2.1: Why this domain

- ➤ When customer go to restaurant they have to stand in a long queue for reservation of table, after these they have to place order from the menu card but there is only limited menu cards so only limited person can see menu other have to wait for some time.
- ➤ There is possibility that if user want Jain food and Jain food is not available at restaurant.

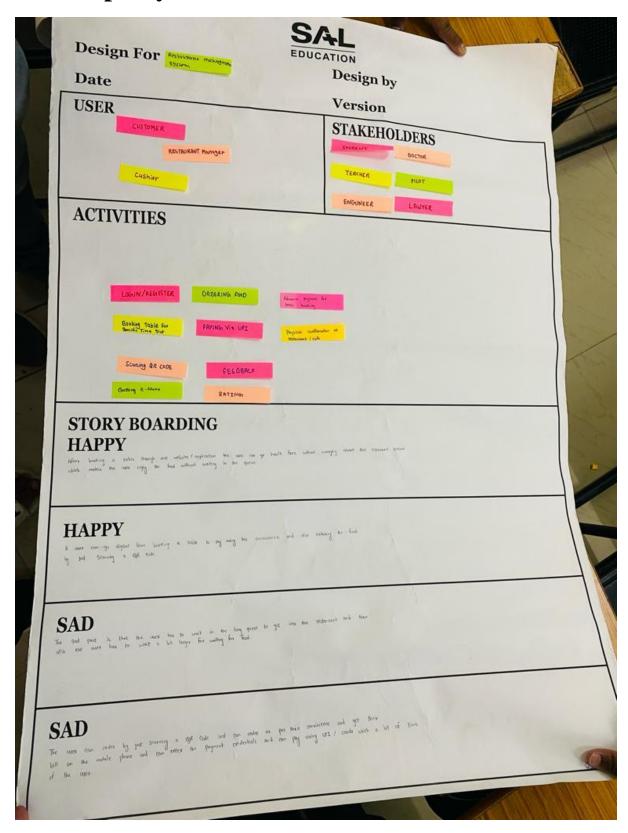
2.2 Observation

that whenever people wish to eating food in restaurant or a café, they must stand in long queue for reserve table. after some time, they get their table in restaurant, this is not over in weekend there is so much crowd in restaurant that environment of that restaurant is too noisy because of so much customer in restaurant management faces some issue like wrong order is taken, wrong order is delivered on table, customer get wrong bill, etc.

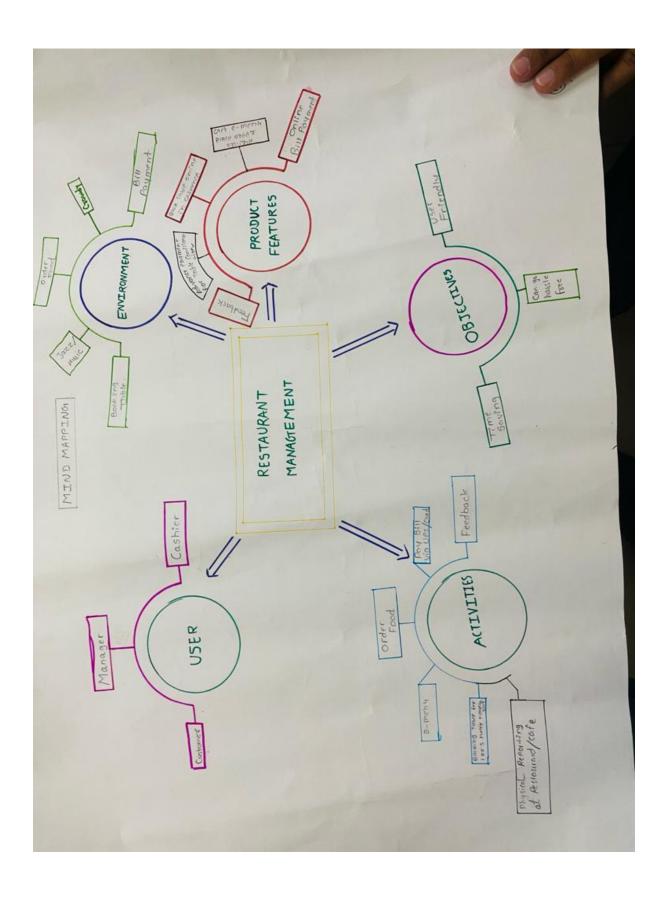
2.3 AEIOU Canvas:



2.4: Empathy Canvas:



2.5 Mind Mapping:



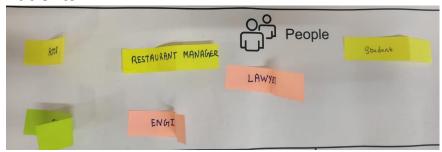
2.6 Conclusion of Empathy mapping:

In our model we tried to solve all these problems, user can book table in advance for some limited time. User can get e-menu for order food; e menu is accessible by all member who is using smart phone so there is no problem with exchanging menu card for getting everyone opinion. User can get e-bill also and they can also pay bill via upi apps or cards. User can rate food and services online

Ideation Canvas

3.1 Ideation Canvas (people):

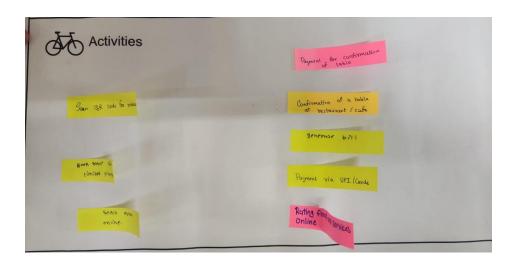
- Doctors
- Staff members
- Nurses
- Visitors
- Patients



3.2 Ideation Canvas (Activity):

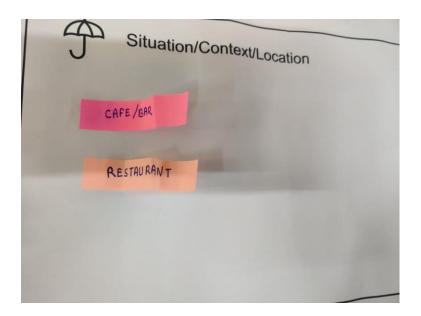
- Booking a table
- Accessing the menu
- Payment via UPI/Debit/Credit cards
- Scanning of QR code
- Ordering of food
- Sending Feedback

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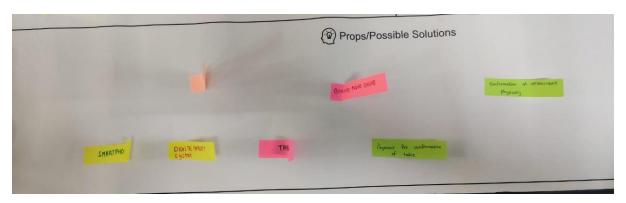


3.3 Ideation Canvas (Situation & Location):

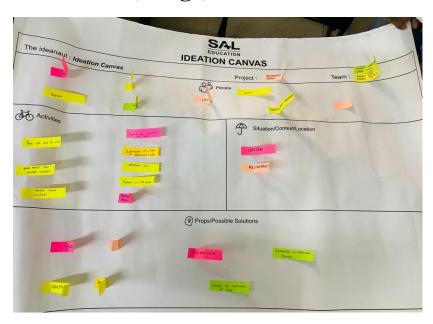
- Restaurant
- Café/Bars



3.4 Ideation Canvas (Props):



3.5 Ideation Canvas (Image):

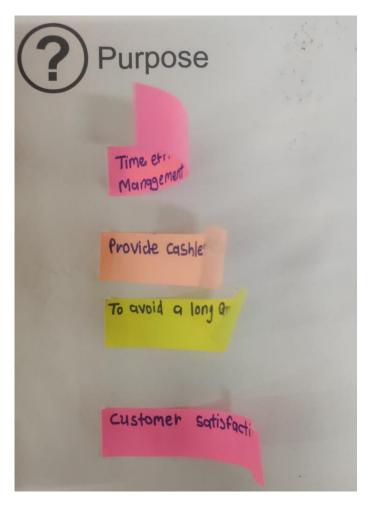


Product Development Canvas

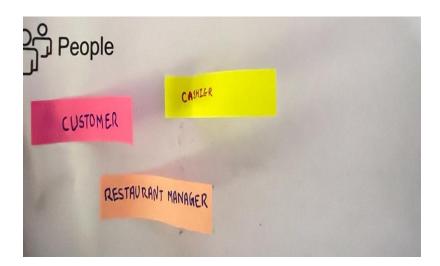
4.1 Final Problem Statement:

In our model we tried to solve all these problems, user can book table in advance for some limited time. User can get e-menu for order food; e menu is accessible by all member who is using smart phone so there is no problem with exchanging menu card for getting everyone opinion. User can get e-bill also and they can also pay bill via upi apps or cards. User can rate food and services online

4.2 PDC (Purpose):



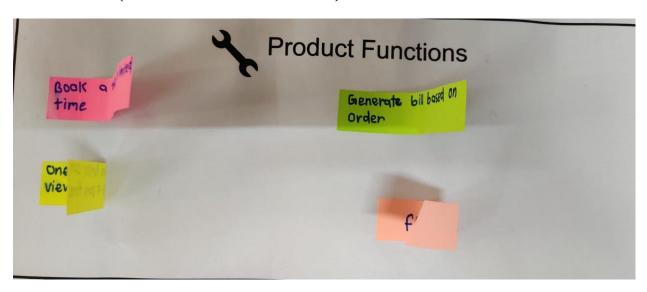
4.3 PDC (People):



4.4 PDC (Product Experience):



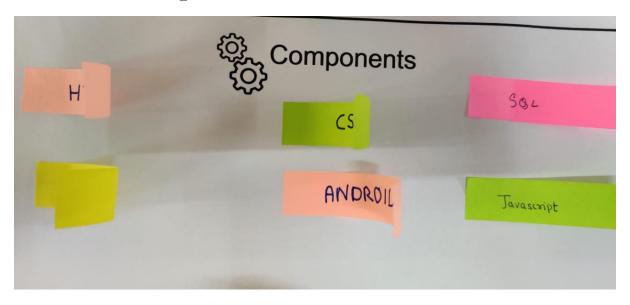
4.5 PDC (Product Functions):



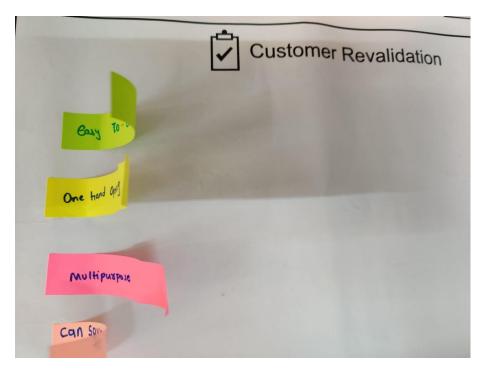
4.6 PDC (Product Features



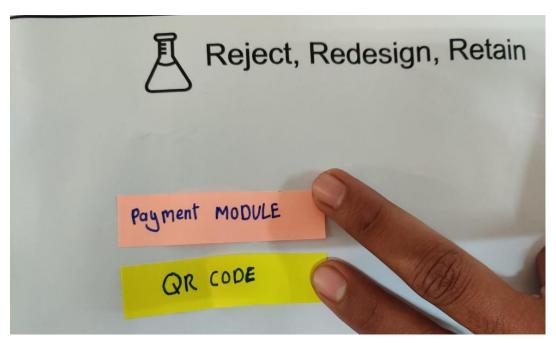
4.7 PDC (Components):



4.8 PDC (Customer Revalidation):



4.9 PDC (Reject, Redesign, Retain):



4.10 PDC (Explanation):

➤ In our model we tried to solve all these problems, user can book table in advance for some limited time. User can get e-menu for order food; e menu is accessible by all member who is using smart phone so there is no problem with exchanging menu card for getting everyone opinion. User can get e-bill also and they can also pay bill via upi apps or cards.

4.11 PDC (Feedback):

➤ Using restaurant management system we can book table in advance and that helped us save a lot of time waiting in long queue so that we can have some quality time with our family.

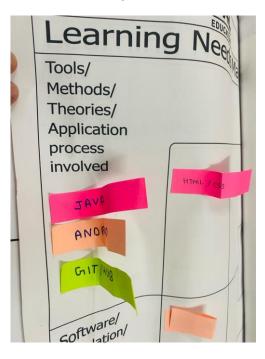
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4.12 PDC (Revalidation):

- Easy to useTime Efficient
- Multipurpose
- One hand operating system

Learning Need Matrix

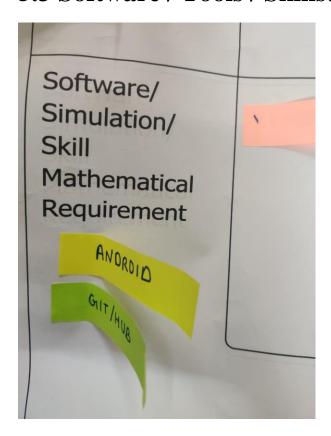
5.1 Theory / Method:



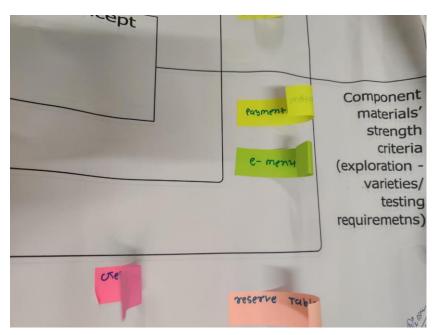
5.2 Applicable Standard Principles:



5.3 Software / Tools / Skills:

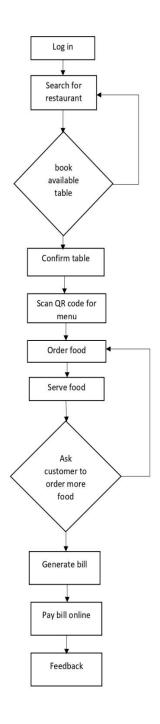


5.4 Components / Strength:



Prototype

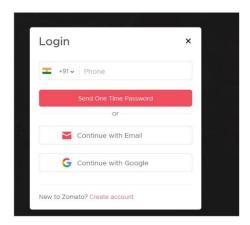
6.1 Algorithm / Flowchart:



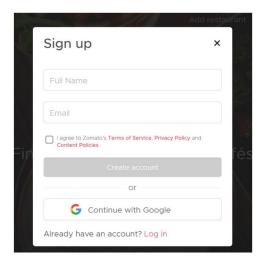
Team ID: 459224

6.2 Modal / Prototyping:

Login Page:



Sign Up Page:



Add Restaurant Page:

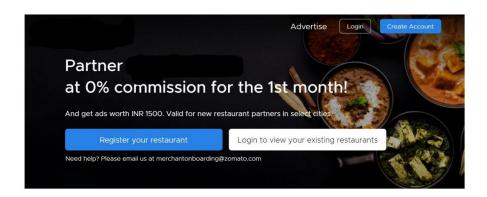
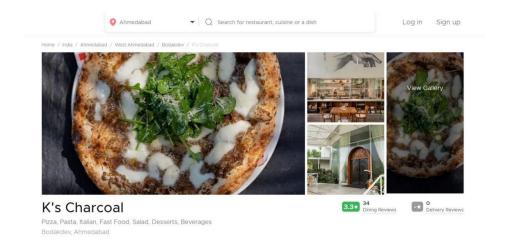


Table Booking Page:



Menu Page:

	s o u	PS	
Truffle & Potato Soup With Cheese Dumplings	385	Tortilla Soup Slow Cooked Pomodoro , Avocado, Corn	385 , Cilantro
	SAL	A D S	
Sautéed Veggie / Mushroom Parmesan Cheese, Garlic, Seasoning	495	Burrata Rocket Leaves, Cherry Tomato & Balsami	525 ic Glaze
Kale & Candied Walnut With Green Apple, Honey Balsamic Dressin	495	Classic Caesar Salad Fresh Lettuce With Caesar Dressing	495
Brussels Sprouts With Roasted Onion, Balsamic Dressing, Gr	525 ribiche Sauce	Quinoa & Labneh With Rocket Leaves, Pinenuts & Pomegr	525 ranate
	PIZZ	ZAS	
Neopolitan - Hand Stretch	ned & Soft	I Romano - Thin & Crispy	
N	eopolitan / Romano 13 inch / 15 inch		Neopolitan / Romano 13 inch / 15 inch
Marinara Pomodoro Sauce, Kalamata Olive	825/925	Truffle Truffle Sauce, Rocket Leave, Parmesan	825/925
Margherita Pomodoro Sauce, Fresh Mozzarella,	825/925	Truffle Oil, Mozzarella Cheese Indian Spiced	825/925
Parmesan, Basil		Pomodoro Sauce, Fresh Mozzarella, Onio	on,

Menu Page:

	-		
Neopolitan - Hand Stretch	ned & Soft	Romano - Thin & Crispy	
	eopolitan/Romano 13 inch / 15 inch		Neopolitan / Romano 13 inch / 15 inch
Marinara Pomodoro Sauce, Kalamata Olive	825/925	Truffle Truffle Sauce, Rocket Leave, Parmesan Truffle Oil, Mozzarella Cheese	825/925
Margherita Pomodoro Sauce, Fresh Mozzarella, Parmesan, Basil	825/925	Indian Spiced Pomodoro Sauce, Fresh Mozzarella, Oni	
Sun Margherita Pomodoro Sauce, Sundried Tomato,	825/925	Bell Peppers, Red Paprika, Cilantro, Cott Cheese, Sesame Seeds	tage
Parmesan Cheese, Fresh Mozzarella Chees Sun Rocket	e 825/925	Hawaiian Delight Pomodoro Sauce, Fresh Mozzarella,	825/925
Pomodoro Sauce, Sundried Tomato,		Pineapple, Corn, Jalapeno	
Rocket Leaves, Buffalo Cheese, Parmesan (Fresh Mozzarella, Black Olive	Cheese,	Mushroom Heaven Pomodoro Sauce, Mushroom, Onion,	825/925
Super Greeny Pomodoro Sauce, Zucchini, Broccoli, Sun Dried Tomato, Fried Garlic, Seasoning,	825/925	Fried Garlic, Fresh Mozzarella Cheese Burrata Pomodoro Sauce, Burrata, Basil, Pesto	825/925
Fresh Mozzarella Rubello Pomodoro Sauce, Chilli Flakes, Onion, Bell Pepper, Mozzarella, Jalapeno	825/925	Polo Pesto Basil Pesto, Fresh Mozzarella, Olive, Mushroom, Cherry Tomato	825/925
Fire Alarm Pomodoro Sauce, Green Chilli, Onion.	825/925	Funghi Basil, Parmesan, Chilly Flakes, Shitake Mushroom, Enoki, Shimeji	825/925

Enhancements

7.1 Feature Enhancements:

However, bigger does not always mean necessarily always mean better. The proposed system is Restaurant Management System. We can enhance this system by including more facilities like restaurant system for the ordering of food. Providing such features enable the users to include more comments into the system.

> FUTURE CONCEPT

Implementation of restaurant management system project helps to store all the kinds of records, provide coordination and user communication, implement policies, improve day-to-day operations, arrange the supply chain, manage financial and human resources, and market hospital services. This beneficial decision covers the needs of the patients, staff and hospital authorities and simplifies their interactions. Overall, in future hospital management system should become more efficient, user-friendly for all and bugs free as much as possible.

LIMITATION

- The size of the database increases day-by-day, increasing the load on the database back up and data maintenance activity.
- Using RMS requires basic computer or laptop knowledge with internet, which many citizens don'tknow. So, this is not useful for all.

Conclusion

***** Conclusion:

Restaurant management system user can book table in advance for some limited time. User can get e-menu for order food; e menu is accessible by all member who is using smart phone so there is no problem with exchanging menu card for getting everyone opinion. User can get e-bill also and they can also pay bill via upi apps or cards. User can rate food and services online.

***** Reference:

- o www.courserahero.com
- o www.slideshare.net
- o <u>www.researchgate.net</u>

Appendix - I Prior Art Search

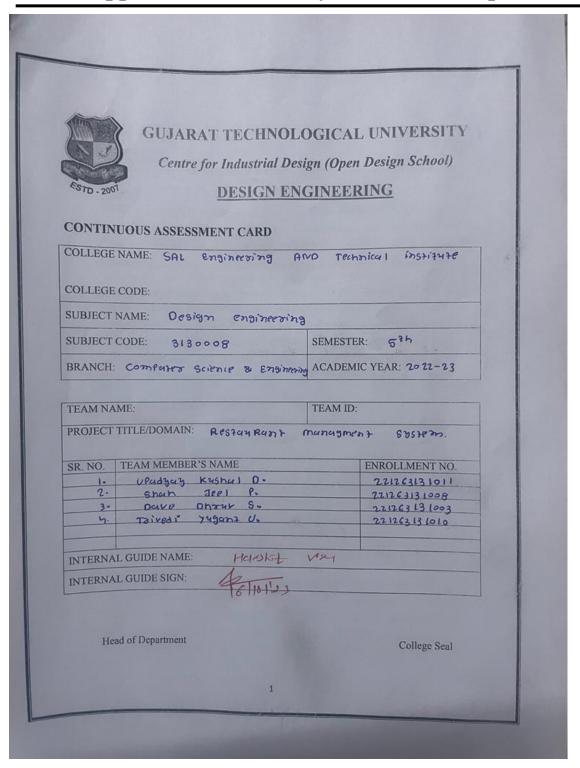
- > Table and order management functions
- ➢ POS system
- > CRM integration
- > Menu setup options
- > Employee timesheets and scheduling
- > Inventory management and tracking
- > Loyalty programs and marketing
- > Business analytics tools

Appendix - II Rough Proofs





Appendix - III Monthly Assessment Report



	TE:/_/_) Why students/team have taken above mentioned domain? (Please specify the reason)
	(Note: For more content or information, one may attach additional pages to this card.)
	When customer visit a Restaurant for
	dinner may have 20 stand in long Que
	for reserve table. after this long aniting
	process They ordered food from menn and
2	How frequently student team has gone for observation on field, mention with date, place,
	time etc.? Which are the key observations that they have noticed?
	1) Date: 25/04/23: Place: Aumeda had
	Milkanth resourcent Time: 12: Am
	2) Dar: 23/10/23: Place; Ammedabad Yankis sizzler Time 8:00PM
	74 NRTS \$122108 11110 \$100111
3.	A. How many interactions/interviews team members have done?
	Three or four intrection have done
	by segm members:
	by Jean member 5:
	B. Who are the user and various stakeholders on domain? Describe their persona (Name,
	B. Who are the user and various stakeholders on domain? Describe their persona (Name, age, occupation/education, roles and responsibility etc.)
	B. Who are the user and various stakeholders on domain? Describe their persona (Name,
	B. Who are the user and various stakeholders on domain? Describe their persona (Name, age, occupation/education, roles and responsibility etc.) USET: STUDENTS POLICE, doctor
	B. Who are the user and various stakeholders on domain? Describe their persona (Name, age, occupation/education, roles and responsibility etc.) USET: STUDENT STUDENTS CUSHICE CUSHICE STUDENTS CUSHICE CUSHICE
	B. Who are the user and various stakeholders on domain? Describe their persona (Name, age, occupation/education, roles and responsibility etc.) USET: STUDENT TRACKET, POLICE, doctor STUDENT CUSTOMET TRACKETS C. List out the questions asked by team while having observation and interview?
	B. Who are the user and various stakeholders on domain? Describe their persona (Name, age, occupation/education, roles and responsibility etc.) USEN: STUDENT TEACHER, PRINCE, LATOR CUSTOMENT OF CUSTOMENT OF CUSTOMENT OF CUSTOMENT C. List out the questions asked by team while having observation and interview? 1) CAND QUALITY TIME TO RESERVE TUBE
	B. Who are the user and various stakeholders on domain? Describe their persona (Name, age, occupation/education, roles and responsibility etc.) USET: STUDENT TRACKET, POLICE, doctor STUDENT CUSTOMET TRACKETS C. List out the questions asked by team while having observation and interview?

Q can	A
TICTO	vity's Customer giving ordure a ecuting meal
-	Asking for bills feedback, Paying bill
Env	monment: little noisy, even chance fables
-	waiter a manager, TV.
13/3-2	food pay bill fredback.
_05	er: Students toucher, doctors engineer,
@	There are only few meanward so other user have to awit for mean card. It may possible that awiter and more item in mistakely some time all shown in the meanward es not avitabel. you didn't set any offer via cash or payment.
	ne your "PROBLEM DEFINITION" for the project as per below format. Which at be refine till end of Ideation phase if you wish.

Team ID: 459224

SUGESTIONS BY INTERNAL GUIDE:			
AEIOU CANVAS SUGGESTIONS:	NA		
EMPATHY CANVAS SUGGESTIONS:	NA		
MIND MAPPING SUGGESTIONS:	NA	1	
GENERAL SUGESTIONS:	NA		
Overall Mark (Out of 05):	04		
4			
GUIDE SIGNATURE: Date:			

DATE :	plain briefly Ideation thought process and efforts of your team to reach ideas for listed	
	oblems.	
	whin are disruss with few customers this	
	2011 215 Frat is they can book tubil in	
	available all the Problem will be solved this dian't have to overt in these are for longing	7
2. E	nlist any five effective ideas to address the probable listed problems with reason.	2)
_(D ar have so develop system in with 4500	
-	can see near by quaitable restaurant.	
<u>U</u>	and availably of foot	
	The book dable of user can lay via online method explain the most effective possible solution proposed for the problem. (E) user surbling a develop System in which users can book dable in advance from his mobile or dable anythme and gave order food by scanning are come of a proceed by online system. Living a sure regard online and also paragraphed by the cord or layth. Explain the features, functions and working principles/technology/pattern of your proposed solution.	
	Homes CSS3 Janus Scarpas PMR	
	5	

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_	Party in Tre four suns and book Japu in advant
_	user can sewer many so any misrake
_	can't happyon. Then am also pay hell
-	online.
6. E	oriefly mention refinement on PDC based on User/Stakeholder's feedback on your
	customer do not have to evert for discre
	of range. But into again morragiones con
	show in system. If mestaming crant to
	cuncel booking thing can cancel it.
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	No.
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