

**A**  
**Mini Project Report**

**on**

**Cake On Tap**

Submitted in partial fulfillment of the requirements for the  
degree

**Second Year Engineering – Computer Science Engineering (Data Science)**

by

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## **CERTIFICATE**

This to certify that the Mini Project report on **Cake On Tap** has been submitted by Vaishnavi Jadhav(23107051), Sharvari Kadam (23107026), Riya More (23107041) and Arjya Dey(23107062) who are bonafide students of A. P. Shah Institute of Technology, Thane as a partial fulfillment of the requirement for the degree in **Computer Science Engineering (Data Science)**, during the academic year **2024-2025** in the satisfactory manner as per the curriculum laid down by University of Mumbai.

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# Chapter 1

## Introduction

Cake On Tap is a desktop-based application which aims to provide an online platform to budding or small-scale businesses and self-employed individuals who are into cake baking. Also, this application can work as a simple cake ordering tool for users.

### 1.1.Purpose:

The basic purpose behind this application is to contribute towards e-commerce and online retail by creating an online user-friendly platform. This will enhance the experience of customers and the bakers(admin).

### 1.2.Problem Statement:

- All the pre-existing websites and applications in the market belong to the established cake stores which are only used for their own service.
- There was no other online platform that works like an aggregator amongst the cake shops and cake vendors.
- The current cake ordering process is often time-consuming, complicated with the customization of cakes, and provides limited options for users to order cakes online.
- There is a need for an efficient platform that allows customers to order customized cakes with real-time pricing updates and empowers home bakers and vendors to sell their cakes directly to customers.
- Additionally, the system should enable administrators to effectively manage orders detail, customers and ensure smooth running of business.
- Many a times the customization doesn't show the pricing alongside correctly.

### 1.3.Objectives:

The project has the following main objectives to full fill:

1. **Contribution Towards Self Employment:** Any individual or group of individuals willing to earn money by selling cakes on their own, then all they need to do is register themselves in Cake On Tap.
2. **Convenience of Customer:** A simple and straight forward user-friendly GUI which will help the customers to not only place the order of the cakes of their choice, but

also would allow them to customize the cake with their preferred toppers, whether they want it gluten free, with egg or eggless. This will also show the users the real time pricing alongside.

- 3. Efficient Management:** The baker who is acting like the admin will have a control over monitoring the orders and their customers.

#### **1.4.Scope:**

This project can mainly cater for the following few fields:

1. Cake On Tap directly serves the e-commerce and online retail domain which.
2. This can be a promising resource of income for both small-scale cake business and home cake bakers.
3. Cake On Tap can partner up with well-established event management and help them out by serving them with bulk orders.

## Chapter 2

### Proposed System

Keeping in mind the above-mentioned problems we have designed a solution for them. Cake On Tap is a desktop-based application which will act as source of income for many small – scale businesses and individuals who are willing to earn money by baking cakes at their home and sell it through this platform. The following features and functionalities will make you understand how we are solving the above-mentioned problems:

#### 2.1. Features and Functionality:

- **User-friendly GUI:**

1. The users won't face any complexity while logging-in or signing-up.
2. Simple menu page with “add to cart” feature which will add the chosen cakes in “my cart” page which will allow the users to cross check their orders.
3. Will have a simple GUI with the least complexity.

- **Customization and Real-Time Pricing:**

1. In my cart page, customers will have an option to customize their cakes with weight, toppers, egg preference, etc.
2. While the customers customize their cake, they can see the real time pricing taking place alongside the customization.

- **Customer Monitoring:** The admin can add new customers to the records or remove any customers from the records as well.

- **Order Details Monitoring:** In this case the admin has access to the records of orders.

## **Chapter 3**

### **Project Outcomes:**

1. User Can log in or sign up as a customer or as an admin. This can be simply done by entering the mail ID and password.
2. User can search for cake options available.
3. User can select as many cakes as they want by simply clicking on the “add to cart” option.
4. User can view all their selected cakes in “my cart” option available.
5. User can customize their cake as per their preferences from “my cart” section.
6. The customization will also show the real-time pricing alongside.
7. The admin can monitor on the customer list and order list.
8. User can safely place their final order.



## **Chapter 4**

### **Software Requirements**

As per the guidelines set by the department, we used the following two primary softwares to build our project. They are as follows:

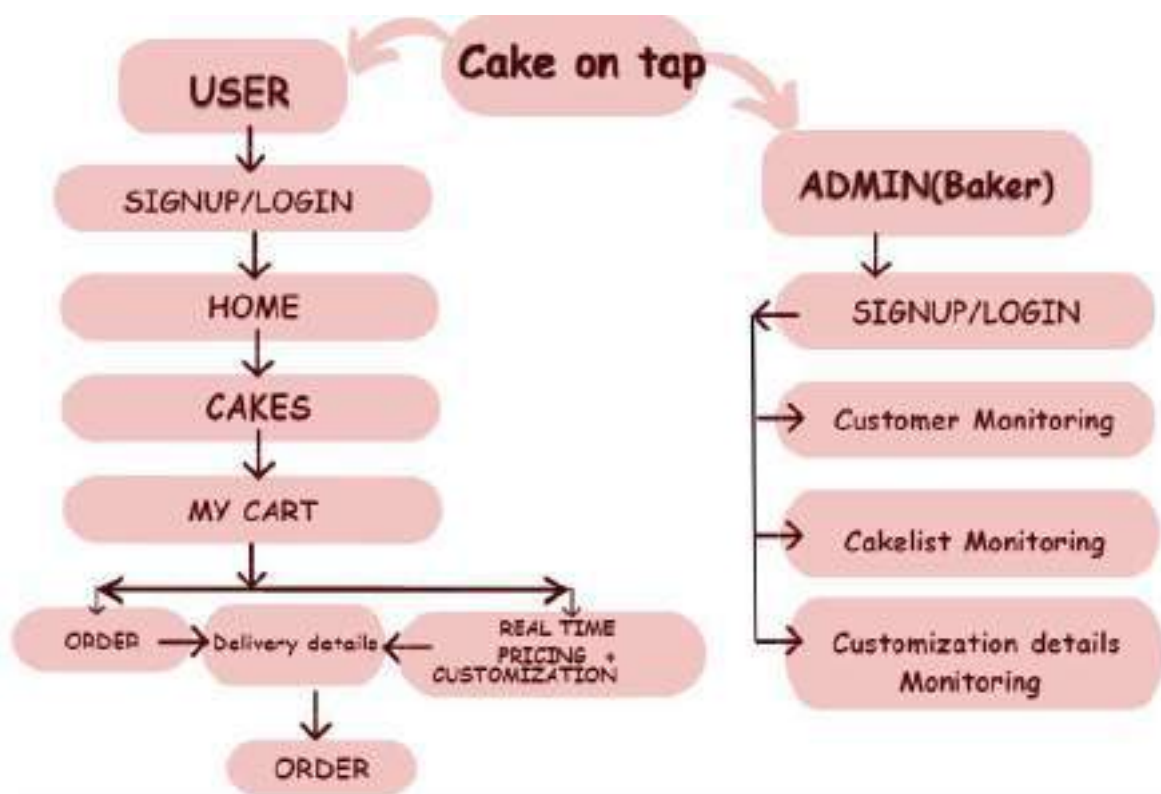
1. NetBeans Integrated Development Environment (IDE):
  - NetBeans is an open-source IDE primarily used for developing applications in java.
  - Features like code editing, debugging and project management helped us make page to page and back-end connectivity.
  - The drag and drop feature helped us design the pages by positioning the buttons and tables.
  - Using 'jlabel' feature we added images to our menu page.
2. MySQL:
  - We used the MySQL workbench for building the database, querying, and management.
  - Official JDBC driver was used for connecting java applications to MySQL database.

## Chapter 5

### Project Design

Given below is the flow of the project which gives an overview of how the project will flow and what all the users can view after opening the application.

1. **Flow chart of the project:** The flow chart shows how Cake On Tap will appear to be for both respective customers and bakers.



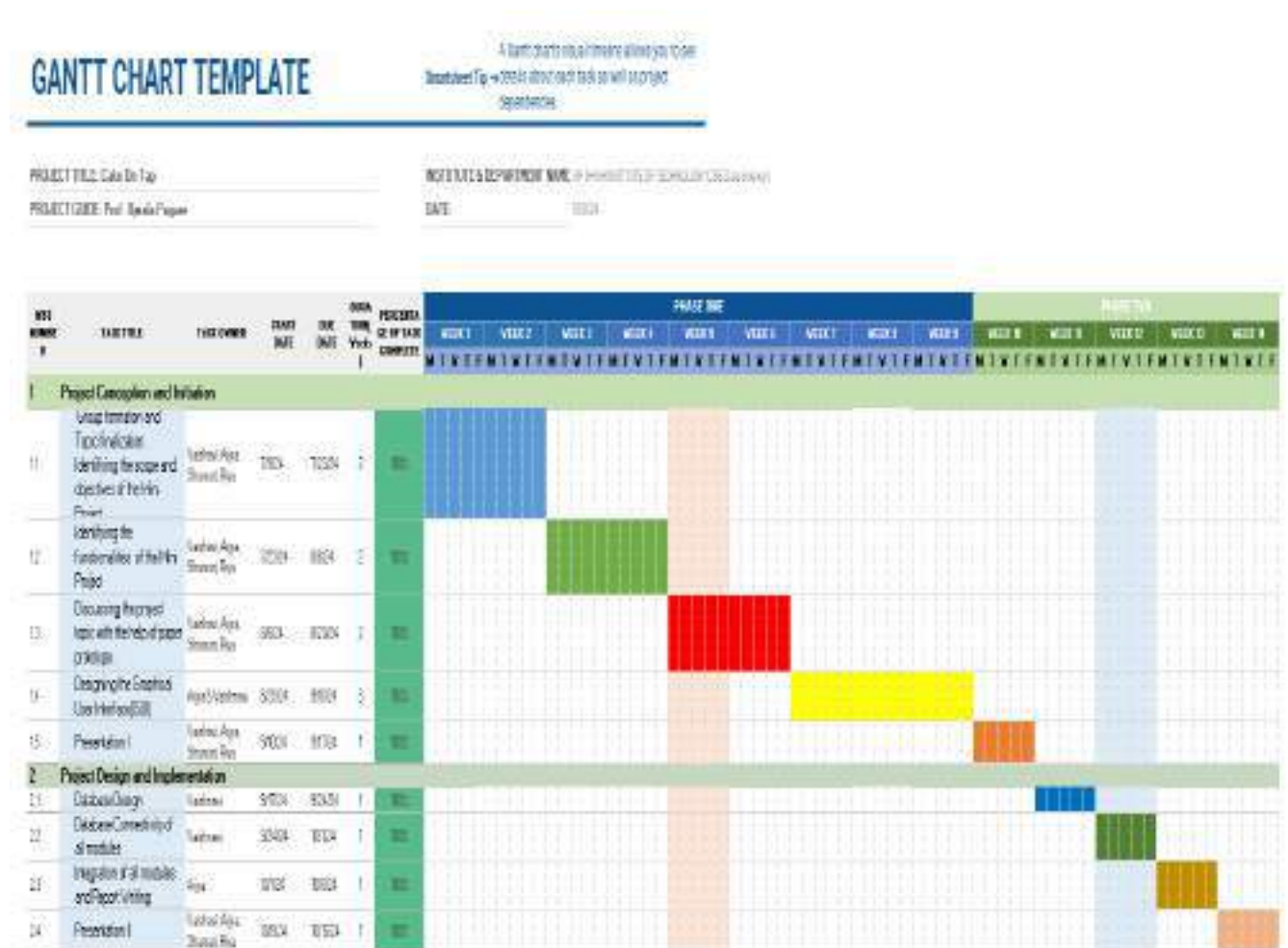
5.1 Flow chart of the project

## Chapter 6

### Project Scheduling

Given below is the Gantt chart of the project which holds the record of the timeline of work that took place from the month of July to October.

#### 2.Gantt chart: Schedule of the entire working that went behind the project.



#### 6.1 Gantt chart

## Chapter 7

### Results

This is how all the pages of application appear to be. The flow of the application can be seen as a customer as well as a baker cum admin.

Flow of the application which can be seen as a baker cum admin:

1. **Primary login page: Login and signup page for both customer and baker.**



#### 7.1 Primary login page

2. **Home Page:** This is the homepage which shows the track record of Cake On Tap till date.



**7.2 Home Page**

3. **Admin login page:** Admin can login using this page to reach their dashboard.

The image shows the admin login page, which has a solid orange background. At the top center, the word 'LOGIN' is written in a large, bold, serif font. In the top right corner, there is a small 'X' button. Below the title, there are two input fields: the first is labeled 'Username' and the second is labeled 'Password'. Both labels are in a bold, serif font. Below the password field is a rectangular button with the word 'LOGIN' in a bold, serif font. The entire page is framed by a thin white border.

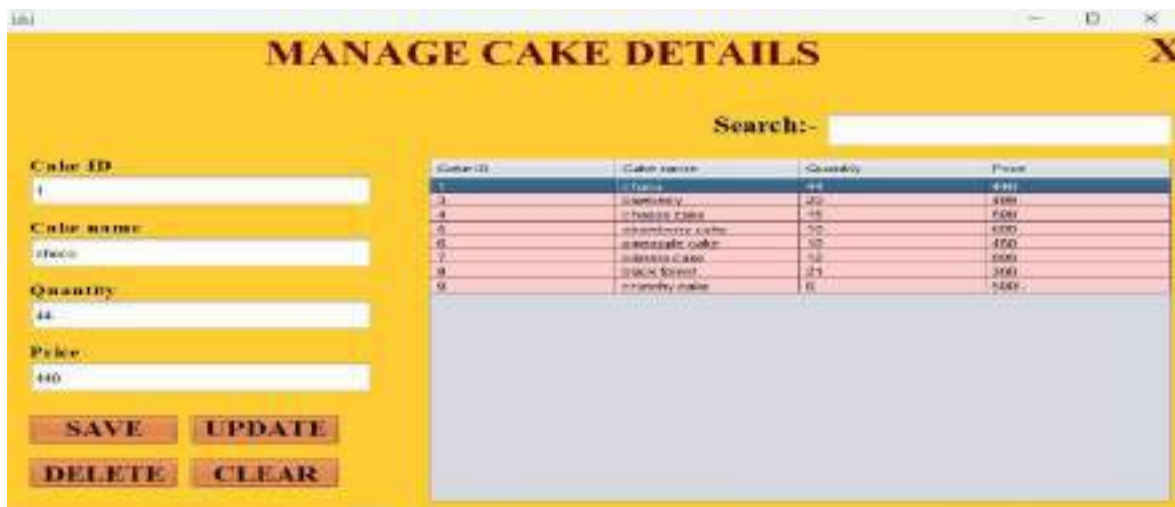
**7.3 Admin login page**

4. **Admin Dashboard:** The dashboard is designed with a focus on ease of use, providing administrators with all the tools needed to effectively run and grow the Cake on Tap business.



#### 7.4 Admin Dashboard

5. The Manage Cakes page allows administrators to easily add, update or remove cake offerings. Keeping your cake menu up to date with a few clicks.



#### 7.5 Manage Cake Details Page

6. Admin customer monitoring page: The manage users page provides full control over user accounts, providing smooth operations and maintain security across the platform.

ID	Name	Email	Password	Phone	Address
1	Deep	deep@gmail.com	1234	9876543210	Chennai
2	Ravi	Ravi@gmail.com	4444	1234567890	Thane
3	Mangal	mangal@gmail.com	7777	1234567890	Hyderabad

### 7.6 Admin customer monitoring page

7. Orders viewing page: Admin can monitor the upcoming orders for delivery and can track the progress of each order, view detailed order information.

PURCHASE ID	CASH ID	CASH	PRICE	CUSTOM PRICE	DATE	TIME	ADDRESS
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### 7.7 Orders viewing page

**8. Admin's page to manage customization options:** Easily manage customer cake customizations, including design, flavors, and special requests. Admins can add, edit, or remove available options to keep customization offerings fresh and aligned with customer preferences.

SNO.	CUSTOMIZATION OPTION	PRICE
1	happy birthday topper	10
2	anniversary topper	10
3	wedding topper	10

**7.8 Admin's page to manage customization options**

Flow of the application which can be seen as a customer:

**9. Primary login and sign-up page:** Login and signup page for both customer and baker.



**7.9 Primary login and sign-up page**



10. Customer login page: From this page the customer can login if he/she already has signed up previously.

The login page features a bright orange background with a white diagonal stripe. On the left, a cartoon cake character with a smiling face and arms is running, with the text "Cake on Tap!" next to it. On the right, the word "LOGIN" is displayed in large white letters. Below it are two white input fields labeled "Email:" and "Password:". A brown "Login" button is positioned below the password field. At the bottom, the text "Don't have an Account?" is followed by a brown "Signup" button. The page is decorated with brown wavy lines at the top and bottom.

7.10 Customer login page

11. Customer signup page: Using this page customer can sign up if they do not have an account

The signup page has an orange background with a white diagonal stripe. On the left, the word "SIGNUP" is written in large white letters. Below it are six white input fields labeled "Username", "Email Id", "Password", "Phone", and "Address". At the bottom left are two brown buttons labeled "Signup" and "Back". On the right, a cartoon cake character is running, with the text "Cake on Tap!" next to it. The page is decorated with brown wavy lines at the top and bottom.

7.11 Customer signup page

12. Menu Page: The Menu Dashboard allows customers to browse a visually engaging gallery of cakes, with high-quality images, descriptions, and pricing.



7.12 Menu Page

13. Customer's order details page: Customer can see the available cake options and decide their orders.

Cake ID	Name	Price
1	choco	490
2	blueberry	490
3	cherry cake	490
4	chocolate cake	490
5	chocolate cake	490
6	chocolate cake	490
7	chocolate cake	490
8	chocolate cake	490
9	chocolate cake	490

Please Fill the necessary details:-

DELIVERY DATE: 11/11/2022

DELIVERY ADDRESS: [Input Field]

DELIVERY TIME: [Input Field]

7.13 Customer's order details page

14. Customer placed order details page: Customers can enter the required details for the delivery of their orders.

**ORDER DETAILS** X

*Next Stop Your Doorstep!!*

PURCHASE ID	CAKE ID	CAKE	PRICE	CUSTOMIZATION P	DATE	IMG	ADDRESS

DELETE TOTAL

PLACE ORDER

7.14 Customer placed order details page

15. Customization page for customers: Customers can customize the cake

**CUSTOMIZE** X

*CRAFTED TO PERFECTION CUSTOMIZED TO YOUR SWEETEST DREAMS!!*

Sno.

Customization Option

Price

ADD DELETE

GO TO ORDER

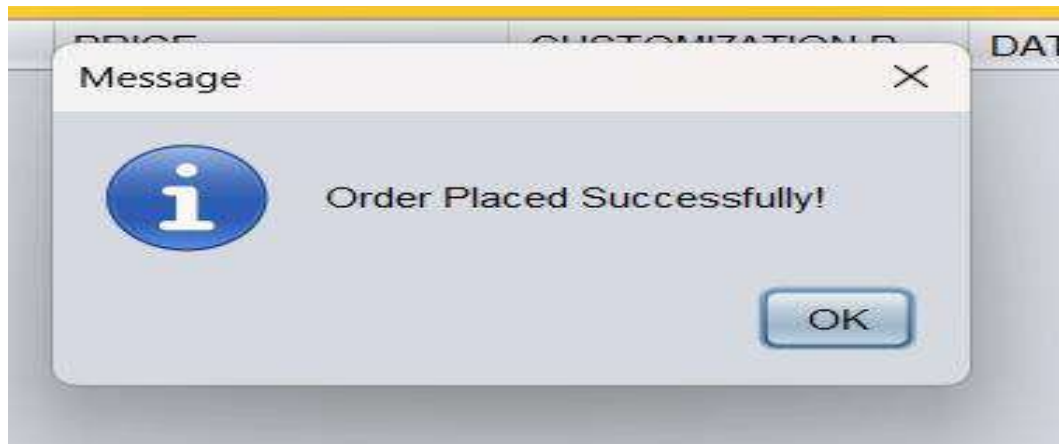
SNO	CUSTOMIZE	PRICE
1	happy birthday topper	99
2	anniversary topper	99
3	wedding topper	99

SNO	CUSTOMIZATION	PRICE

TOTAL:-

7.15 Customization page for customers

**16. Final order placed message pop up: This message will pop up once the order is paced successfully.**



**7.16 Final order placed message pop up**

## Chapter 8

### Conclusion

The primary aim of the project was to provide a platform wherein small-scale cake vendors and budding businesses could sell their cakes and customers could buy them from the same platform. Our other objectives were to give the customers the feature of customizing their own cake, showing the real time pricing alongside. Also in this application the bakers can themselves act as the administrator of their own businesses.

There are multiple new things we learnt about as beginners. Using the knowledge which we gained in each step we successfully made our project i.e., a desktop-based application which is an online platform to sell and buy cakes- “Cake on Tap”. Using this application small scale cake vendors can sell their products and customers can simply order them. This application was built using two primary technologies. They are as follows:

1. NetBeans IDE: NetBeans helped us make the front end based on java.
2. MySQL: This helped us build the entire database.

As beginners the team faced a lot of issues in understanding the usage of NetBeans. With due course of time handling NetBeans became quite easy, but the next issue which we faced was the database connectivity and integration. It was a quite tough job to overcome this issue and understand the working of database.

Using JDBC helped us establish the java to database connectivity and optimize querying performance.

Now the application can be easily used by both the bakers and customers, since using the above technologies and guidance received by our guide. We understood that a simple and user-friendly GUI is something which is appreciated by users and Cake on Tap in its best possible way caters that requirement. The application is now capable of doing the customizations and giving the real time pricing along with it apart from simply placing the orders. The admin can perform CRUD operations like add, update and deletion of cakes, its price and their customers.

We aim to give this platform the shape of a website and mobile app which can surely encourage more small-scale bakers to use it and sell their products using this one simple application, since this can enhance the livelihood of budding entrepreneurs and greatly contribute towards e commerce and online retails.

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