TED UNIVERSITY

CMPE 491

Project Specification Report

CAKERY APP

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1. Introduction

Cakery App is a mobile based software application which is suitable for both IOS and Android. The aim of the application is to help customers order cakes, either for a special day or not, reaching their local bakeries with just one app. Our customer base is everyone who has a smart phone. It will be an easy-to-use design supported by user-friendly interface which will make it suitable for everyone to use. In this specification report we will go through the basics of our application explaining detailed information at the description (1.1), constraints (1.2), professional and ethical issues (1.3), requirements (2) and references (3) parts.

1.1 Description

The Cakery App serves the list of the local bakeries in your town and gives you an opportunity to look through their ready to serve cakes, choose one, and order with in a minute or if you have a special day coming up you can order a customized cake from the bakery you chose. Ordering customized cakes takes time but with the Cakery app, customers don't have to go through each bakery, ask for prices, explain their detailed wants and needs. We solve this problem for you in this mobile app where you can order your dream cake with one button. Cakery app is also giving the opportunity to bakery owners present their desserts and cakes in broader perspective.

System works when you sign in the application, using your email, password, telephone number and address. After signing in, the application will show you the lists of all the bakeries in your town based on your location. All the member data will be stored in our database. In the database system we will store each bakery information as well as member information.

The application has two specific purposes. One, as explained previously, order ready to serve cakes from one of the bakeries you chose. Those ready to serve cakes are perfect for small celebrations. Bakeries in the application have to give detailed information about the cake and they can place pictures of their cakes as well. After customers deciding what cake they want to order, they can add it to their chart and finish their order choosing a payment method.

Second purpose is to give the freedom of ordering customized cakes without physically visiting each bakery in your town. Customers can select their bakery and if that bakery serves customized cake option, they can place an order. Customers have to fill out a detailed form about their customized cake and they can add notes or pictures to make sure everything is clear. After replacing their order, they can choose the delivery date and address.

1.2 Constraints

Cakery should be written in an object-oriented language with strong GUI links with highly accessible and simple API. In this manner, the system must provide a capacity for parallel operation. There are several constraints for the project.

- For the system to work properly, internet enabled devices are required. As a manufacturability and sustainability constraint, system must be reliable enough to run crash and glitch free more or less or facilitate a strong error recovery such that glitches are never or less revealed to end users.
- App would require monthly updates in storage in order to keep bakery data up-to-date.
- Since, Cakery is an app which provides a food item to end-users there is a health constraint of making sure to keep the food items fresh for the delivery.
- Providing flexible payment methods for users.
- Contacting and making deals in-person with bakery owners to use Cakery.
- End user may dislike the app due to Cakery commissions.
- Delivered product being different than the sold product damages reliability and trustworthy image of the application.

1.3 Professional and Ethical Issues

- Maintaining high quality in both process and product.
- Achieving high standards of ethical practice.
- Awareness of the related technologies.
- Taking criticism and giving appropriate feedback.
- Privacy concerns due to storing user and payment information.
- Accuracy of the product sent to end-user.

2. Requirements

The system requirements of the Cakery app, which is the application to order cake and create your own cake, are explained below.

2.1 Functional Requirements

There will be two different access to the system. One of them will be directed to the user and the other to the administrator who controls the system. The first section describes the requirements for user usage of the system.

When entering the Cakery App system, users will be greeted by an application interface. If users want to place an order, they must register in the system. If they are not registered in the system, they can register with the registration page. On the registration page, information such as e-mail address, password to login to the system, first and last name will be requested from

the user. After entering this information, the user logging into the system will be directed to the home page. There will be a list of different cafes and restaurants for cakes and various desserts to be ordered online. The list of cafes and restaurants that make cakes according to the location of the user will appear on the page. To access the information of these restaurants, simply click on the name of the restaurant. Bakeries will have a customization button for their customers to make the cakes they want. In addition to these, there will be a button to order pre-prepared cakes and desserts online. After choosing the cake, customers will be directed to the payment and delivery page.

There will be certain pages and interfaces within the admins, who are another end user of the app. One of them will be a page where they can view customer information. Additionally, Admins will be able to see their order history. Admins will also have access to all information about bakery. Admins will also be presented with two options, bakeries and customers. Thanks to these options, information about the person or bakery will be displayed.

2.2 Hardware Requirement

Mobile Platforms:

Minimum:

- 2 GB of RAM
- Android 4.1 and newer operating system.
- IOS 10 and newer operating system.

2.3 Software Requirements

Flutter 3 - Flutter is an open-source UI software development kit created by Google. It is used to develop applications for Android, iOS, Windows, Mac, Linux and the web.

Dart - Flutter runs on dart, a programming language developed by Google. Dart is a client-optimized language for developing fast applications on any platform. Its aim is to offer the most productive programming language for multiplatform development paired with a flexible execution runtime platform for application frameworks.

Cloud Firestore is a cloud-hosted NoSQL database that your iOS, Android and web apps can access directly via native SDKs. Query the data as you wish and it is structured. Its data is synchronized between devices online or offline.

2.4 Nonfunctional Requirements

- Performance Requirements
- The system must support 1000 customers at a time.
- The system must comply with Microsoft / Apple / Google accessibility guidelines.
- The user and admin interface screen should respond quickly.

2.4.1 Security Requirements

If a serious failure, such as a disk crash, causes extensive damage to a large part of the database, the recovery method must restore a previous copy of the database that was backed up to the archive storage and re-create a more current state by having to reapply. It should re-do the committed transaction transactions from the log backed up until the moment of failure.

All admins and data entry operators have unique login details so the system can see who is currently logged in. No one except system administrators has the authority to update records or sensitive data.

2.4.2 Software Quality Attributes

- **AVAILABILITY**: The system must be accessible at all times. The program can be used over and over again.
- **MAINTENANCE AVAILABILITY**: The system must have the ability to update, replace, and maintain information, as well as repair problems.
- **ACCESSIBILITY**: Although the administrator and many other users have access to the system, each user's access level is limited according to their privileges.
- **STABILITY**: The system should run stably for every user, without crashing or crashing.

3. References

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