DESIGN AND IMPLEMENTATION OF E-COMMERE MOBILE APPLICATION TO ORDER AND SALE FOOD USING FLUTTER AND FIREBASE

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ABSTRACT:-

An Online Food Ordering System is proposed here which simplifies the food ordering process. The proposed system shows an user interface and update the menu with all available options so that it eases the customer work. Customer can choose more than one item to make an order and can view order details before logging off. The order confirmation is sent to the customer. The order is placed in the queue and updated in the database and returned in real time. This system assists the staff to go through the orders in real time and process it efficiently with minimal errors.

Introduction:-

Food – delivery apps save you trips to the grocery store and allow you to order from a wider choice of restaurants and over longer distances than most establishments can offer organically. A restaurant, store, or independent food-delivery company delivers food to a customer through food delivery.

An order is usually placed via a restaurant's or grocer's website, mobile app, or a third-party meal delivery service. Delivered items can include entrees, sides, drinks, desserts, or grocery items, typically delivered in boxes or bags. The delivery person will drive a car in most cases, but in larger cities where homes and restaurants are closer, they may ride bikes or motorized scooters. In addition, autonomous vehicles have recently been used to make deliveries.

Customers can pay online or in-person, using cash or card, depending on the delivery business. For food delivery services, it is common practice to leave a tip. Contactless delivery is another possibility. Catering and wholesale food service deliveries to restaurants, cafeterias, health care institutions, and caterers via foodservice distributors are two other types of food delivery.

The first things you need to know about mobile application development for food delivery app development is this-

You need three different kinds of food ordering mobile applications for the platform. These are-

- The customer side of the app

- The admin panel

- The courier/delivery person app

The trinity of these apps makes a perfect food delivery platform. Without one app, the other has no useful value.

But are the most important features of food delivery apps? What food delivery app features does each app need?

Let's discuss how each kind of food delivery apps are being used and what features you need to include to make them perfect.

The Customer App

This is the business end of the food delivery application. The customer app is the one that the customer is going to use. That is the briefest description for this app.

The customer app helps the customer to access the online food ordering platforms, search for the right restaurant or the dish they want to order, place their orders and pay easily.

There are many features you can implement in the app to make it easy and exciting to use. Here is a list of some absolutely necessary and then some additional features of food delivery app your customer app needs.

1. Registration And Creating A Profile

This is probably going to be the first step into your app and the first feature the user is going to interact with when they open your app.

With a registration and profile management feature, the user is going to be able to enter the useful information into the app and customize it to their liking.

Make the registration feature smooth and easy, not complicated like the user is making a bank account. Include the options for registration via social media accounts. The quicker and easier it is for the user to register to your app, the quicker they can get to searching for their favorite food.

The profile management is going to enable them to edit their profile and customize the settings and preferences. Make sure that they only have to put in the necessary details and nothing more. You also have to make sure that all their details are absolutely safe. Develop a safe and strong back-end to keep the user details and passwords safe.

2. Search And Find Food Easily

This is one of the most important features of food delivery app.

After logging in and profile customization, the user is going to look for what they should eat.

They might have an idea, or they might be just looking to see what looks good. In any case, the feature of easy search and find is going to be super useful.

The best way to make it works is to have a smart list of all the restaurants and cuisines organized by location, type of food (fast food, or more gourmet dishes), food preferences (vegetarian, meat lovers, any special diets like gluten-free diets), different nation's cuisine, etc.

With this smart list feature, you are only going to make it easier for the user to find what they wanna eat. All they have to do is to look through these lists to find recommendations of all the restaurants catering to the specific list.

3. Checking The Restaurant Profile

Once the customer has found the restaurant they want to order from, they need to be able to look at the restaurant profile. This helps them to get to know about the restaurant, it's location, what kind of food they deliver and their pricing. So make sure to add this feature to your food ordering mobile application.

4. Add The Food To Cart

This is one of the important food ordering app features. If the customer is ordering food from more than one location, this will be a handy feature for them. Many times they may not find all they want from only one place so they will order from different places.

With the Cart feature, they can add the items on the cart and simply place their order in one go. No need to place orders more than once for more than one place.

5. Schedule the Orders

Order scheduling is going to help the user to order the food ahead of time or whenever they want the food to be delivered to them.

Imagine leaving the office, so tired that you feel like a zombie, and knowing even if you go home and order food, you'll have to wait for at least 30 minutes for your food.

But, with the order scheduling, the users of your app don't have to wait. They can just order the food as they are getting out of the office, and as they reach home, they will be delivered their food at the perfect time.

This is a convenient one of the convenient food ordering app features that is going to make them love your app even more.

6. Delivery Person's Contact Info

After placing an order and confirming payment, you can provide the customer with the contact information of the delivery person. This way they will have an easier time to contact the delivery guy and get the information about where they are and how long it'll take for them to deliver.

7. Make It Easy to Pay

After order comes to the matter of payment. This is an absolutely important part of the business and delivery person.

Include multiple payment options for the ease of payment. These payment options can include online payment through PayPal or Stripe, or cash on delivery. Including multiple payment methods is going to make it easier for the user to pay for the food.

Make sure that if they choose to pay online, their online payment information should be safe and secure. Any compromise to this security can cause them significant harm and in return, your reputation can suffer.

8. Order History

The order history feature is going to help the customer to see their previous orders. This is convenient for the ones who always place similar orders. This way they can place the same order again without having to search and pick the restaurants and dishes again and again.

9. Track The Food, Real-Time

After the order is placed, it's a matter of waiting, but there is no need to make the wait unbearable for the users. Let them track the progress of their order in real time.

With this feature, the user can easily track their order and what is its status. This way they will be assured of their order reaching them. This is also going to make them less annoyed during the waiting.

10. Rating And Reviewing The Food

The rate and review feature is going to be the icing on the cake that is your food delivery app.

With this, customers can rate and review all the different restaurants and their dishes. This is a well tested and amazing way for them to let the other users know how good each restaurant is and whether they should order from there or not.

Additional Features That You Can Go For

Besides the necessary features listed above, you can also add some additional features of food delivery app that are going to go a long way for your app to become more famous.

1. Offers, Promos Coupons And Many More

For any food ordering application, the feature of offers and promos is an important one.

You can offer attractive promos and offers to the users, who will be delighted to order food from your app for a discounted price. This is going to assure customer loyalty and retention, along with attracting more customers on your app.

Of course, through push notifications, you can let the people know about all the attractive deals and offers on your app. You can also when the status of their order through this feature.

2. Push Notifications

This feature is, however, like a double-edged sword. It is very easy for users to become annoyed by constant notifications. So make sure to also add another neat feature that will enable them to control the frequency of the notification they are going to receive.

With these two additional food delivery app features you can increase customer engagement with your app.

The Admin Panel

If the customer app is the face of your food delivery platform, then the admin panel is definitely the brain. And without the brain, the platform cannot function. This is the second phase of food delivery app development process.

The admin panel is absolutely necessary to run your service efficiently and manage your restaurant online. It is a web-based application for the restaurant owners and the people who are running the service. The admin app is mainly used for accepting orders, managing them, setting the prices, etc.

Here is a list of necessary features you need to run the core app of your food delivery platform.

1. Registration & Profile Management

Just like the customer app, the admin panel also needs a registration and profile management feature. It is one of those features of restaurant mobile application that are applicable across all three kinds of apps.

In case you are running an aggregator model, which lists different restaurants for the users to order from, you need this feature. The different restaurants can register to your service with their details like restaurant name and address, their menus and prices, offers, etc. once they have registered, they can start receiving orders from the customers.

2. Order Assigning

The order assigning feature is one of the important food delivery app features for your app to have. With this, you or the restaurant using the admin panel can assign orders to the different delivery personnel easily and efficiently.

3. Dashboard

The dashboard is an important feature for the admin panel of a food delivery platform. This will help you immensely to manage your restaurant. The admin can see all the important features on the dashboard, about the orders and deliveries and payments. This is going to make business management easier for them.

4. Managing The Content

To achieve the best UX for your food delivery customer app, you need to make sure that the content on your admin panel is rightly optimized.

In the case of an aggregator model, this content is uploaded and handled by the different restaurants.

So make sure to include the feature of managing the content on the admin app. With this feature, the restaurant owners should be able to edit the general information about their restaurant like name, address, contact information, working hours, etc.

They should also be able to add photos and edit their menus, like deleting items, changing the price, etc.

With the latest and updated content, the users are going to get a better experience from the food delivery platform.

5. Managing The Orders

Once the profile is complete and the content is updated, it's time to handle the orders.

The order management feature is another essential feature for the admin app. With this, the restaurants can handle the orders they receive and the delivery of those orders. They can manage and update the status of the order and let the user know when their order will be delivered.

They can also handle the payment from with this feature. Along with that, the order history is

another side of this feature that can be really useful for the restaurants using the admin panel.

It is an important feature for the admin panel of a food delivery app. So do not forget to include it during the development process.

Additional Features in Admin Panel

Besides the necessary features of food delivery app, there here are a few additional features you can include in your admin app.

1. Accounts & Management

From the admin app, the restaurants registered should be able to manage and edit the payment and financial accounts. This is going to be a neat way for them to handle the revenues gained from the app and its customers.

2. Sending Out Push Notifications

With the push notification center, the admin side of the delivery platform can send out notifications to the users to let them know about new offers and discounts. The push notification center can analyze the user's order history and send out notifications according to that.

3. Loyalty Campaign, Offers, And Deals

The admin panel is the right place for this feature. With this, you can create loyalty campaigns for longtime customers and create new offers to get new online customers.

4. The Analytics

The analytics is part of the food delivery app features that is going to help the admins to know all about how much they are earning from the online food delivery app, how many customers they have, how many orders they are getting on a daily basis, etc. the analytics is going to get them a clear view of the business and help them keep an eye on everything.

The Courier App

This is the third part of the food ordering application that going to be used by the delivery person. This app needs only a few of the important features of food delivery app. And those are-

1. Registering And Editing The Profile Once Again

Just like the admin panel, the registration is a must for the courier or delivery side of the food delivery app as well.

With this, the delivery personnel can be verified by the restaurant or the food delivery service. This goes a long way to secure the restaurant and its online customers from becoming a victim of fraud or other criminal intents. This is an important food delivery app features that all admin apps need

The user needs to complete the registration and verification process with proper details. Once they are verified, they can start receiving orders and delivering them.

2. Managing Orders

With this feature, the delivery people can see if they have any order requests or not, and they can also accept and reject new requests from here.

3. Navigation And GPS Tracking

The navigation and GPS tracking are absolutely important because with this the delivery personnel can find the delivery location. They can find a way with the help of the in-built navigation system to deliver the order at the right time.

4. Status Update

The delivery person can update the status of the delivery with this feature. Once they update the status of a certain order (as in progress, delivered, delayed, etc) the customer would get a push

notification about it. This is a great way to communicate with the customers and engage them with the app.

5. Wallet Feature

The wallet feature is going to help to handle the payment and commissions the online personnel will receive from the app and the restaurant. They can check the wallet to see how much money is left and withdraw money whenever they want.

6. Delivery History

This feature will help the delivery person to see a record of all the previous deliveries and payment information. With this feature they can keep a track of their deliveries and how much the payment for each was.

Now that we know the essential and additional features you absolutely need for your food delivery apps, let's talk about how to succeed in a competitive market. Because having amazing features is not enough, you need to have the right marketing strategy to make your app a success.