**FYP DINE IN SYSTEM ( DINIZA )**

**CORE REQIREMENT**

1) Customer must need to login to open customer menu

Module: 1) login and 2) food menu

1. Completeness:

Requirement is completely defined here because user only place order if its login otherwise he will make his account and then login.

1. Clarity:

Using of agile methodology which is mostly used in software houses. This requirement basically clear and clarity of this requirement is basically clear because customer needs to login first to order food.

1. Validity:

Authentication regarding login credentials would be strictly followed because of user private information, system or app must fully authenticate the login credentials like username or email and password and also authenticate both of them correctly.

1. Measurability:

We give solutions to our stake holders like so gusto, burger lab through this app and solved their problem to give advanced features of predictions that will increase their customer and for customer time will not be waste for ordering food also default error occur to suggest user to full their fields properly.

1. Testability:

Testing would be done like beta testing and other use case testing and interface testing etc. In use case like checking login if there is default error occurs when user did not enter anything n field, or check password verification etc.

1. Maintainability:

We will use such languages, frameworks and packages and API’s which are environment adaptable like python language and new frame works like kivymd and other API’s which provides excellent features this app actually cross platform application, .

1. Reliability:

In any power loss or internet connection loss the device keeps the data save and secure so the user or customer time will not waste to give the same login credentials again and again if power loss between processing system should start where its left.

1. Look and Free:

Human should be literate at least he can be able to login into system and must know the credentials, app should be friendly and easy to use, help button there to guide them how to login.

1. Feasibility:

Our idea is feasible to save customer time we find out solution for saving time of customer to come up with this type of an idea for self-ordering system without waiter and this requirement is also feasible because without getting login how can we place our online order to save our time.

1. Precedent:

Precedent would occur like sign up which is similar method to login process.

1. Scale:

Using firebase system for database will handle data efficiently and accessible by all over the network. Using of different architectural style for customer, manger and chef interface will help us a lot in and using of good API’s and web services will help us in maintain scalability.

1. Scalability:

App will manage the workload for the whole app system or app will manage the workload for each interface or module efficiently, higher workloads system will efficiently manage the customers or no. of users load on the server new services will be used that will help to minimize the workload in peak hours.

1. Performance:

App will not take much time to load the next page or screen the utilization of memory should be done in such a way that system or app should not be hanged or not take too much time for processing after login and in placing order. App should be designed like that it should increases throughput and latency minimize.

1. Safety:

Login credentials, backend security; functions and methods are private which will help in providing more security for user login system to not to leak them easily.

1. Specification:

Specification of the app will not be compromised like all task like login, place order and payment would be done efficiently, friendly user interface easy to use, interfaces are totally connected with each other in a perfect manner and work and perform task correctly and system or app or interfaces uses such color shades that could easily also helpful for color blind people etc.

2) Payment can be done from credit card and cash only

Module: 1) Payment Option

1. Completeness:

Requirement is completely defined here because in order to pay the bill customer must have credit card or cash.

1. Validity:

Authentication regarding payment credentials would be strictly followed because of user private information, system or app must fully authenticate the payment credentials like credit card no. and pin code also authenticate both of them correctly.

1. Measurability:

We can add functionality of payment through wallet system in the app as it will allow user to eat in restaurant without carrying any cash customer just need to put money in his wallet available on app

1. Testability:

Testing would be done like beta testing and other use case testing and interface testing etc. In use case like checking payment method if there is default error occurs when user did not enter anything n field, or check pin code verification etc.

1. Reliability:

In any power loss or internet connection loss the device keeps the data save and secure so the user or customer time will not waste time to give the same payment credentials again and again if power loss between processing system should start where its left.

1. Look and Free:

Human should be literate at least he can be able to visit the payment option interface and must know the credentials, app should be friendly and easy to use, help button there to guide them how to do payment.

1. Safety:

Payment credentials like credit card number or pin code, backend security; functions and methods are private which will help in providing more security for user payment system to not to leak them easily.

1. Feasibility:

This idea is feasible as this module is used in most of the app that contain payment method to pay bill. This idea is feasible and easily implementable.

1. Specification:

He also has a feature that this app will have a wallet where user amount can be store and if eats in the restaurant he can pay from its wallet rather than carrying cash

3) Customer must need to scan QR code in order to open menu on his phone

Module: 1) Camera 2) QR code generator 3) Food Menu

1. Completeness:

Requirement is completely defined here because user only wants to open menu on his phone without any physical interaction in the restaurant therefore QR code will solve this problem which will allow user to scan the code from his phone through app.

1. Clarity:

Using of agile methodology which is mostly used in software houses. Idea is basically clear because QR code is best solution to store information which can me access from phone using app It mostly used PZBar library in python is used to encode or decode data from or into QR code. This idea is clear as this idea is easily implementable on any app.

1. Validity:

Validity of the camera on his phone is necessary in order to open food menu. The Scanning method from phone is valid for scanning QR code as this method is most widely used in restaurant as QR code can store complete information in it. This QR code in our app will contain all information of the table in the restaurant.

1. Measurability:

The solution is measurable as it fit the criteria and provides a portable hand held device solution to scan the QR code.

1. Testability:

This requirement is testable as the requirements are measurable and complete. To test the function is working properly or not we have to test on QR code which contain some information and if display data on screen that mean the code is able to decode data from the QR code.

1. Maintainability:

Its implementation and deployment in the app is easy and maintainable due to build in library of pzbar which is been used to encode or decode the QR scan.

1. Reliability:

Reliability is that the QR scan module should work in the normal light as the light is too bright or too dark that QR scan is not visible in that case reliability is not stable as it depend upon the surrounding factor and mobile should have camera of proper resolution to scan QR code.

1. Look and Free:

As many people with the QR scan module as it would be free and easy to use for the customer .

1. Feasibility:

Feasibility is more depend upon user rather than creator. According to creator perspective it is feasible as this idea is implemented already but we are adding some more functionality such as prediction of future from sales which is also implementable on the database of the sales.

1. Scalability:

This feature will work on every ios and android phone which will have this app installed. It will independent of the number of users as this app will design according to numbers of tables available on the restaurant.

1. Performance:

We will make sure that the scanning process can work efficiently on every device regardless of android version.

1. Specification:

System should scan all the QR code available on the tables. If someone has book the table and he went out and if another person try to scan and open the menu it will not work. One more specification will be if someone wants to take away food rather than dine in he can scan QR code on the counter and see the menu.

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