

SEG2105, Introduction to Software Engineering
Section: BV00

MEALER APP ANDROID PROJECT FINAL REPORT

School of Electrical Engineering and Computer Science

Faculty of Engineering

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Group number	4	
Submission date	2022-12-07	

The final project for SEG 2105 is the creation of a meal-sharing application, which hosts 3 types of users; clients, cooks and administrators. Each user type has unique functionalities made available to them in the application. In short, a client should have the ability to buy meals from cooks, the cook should have the ability to create and sell meals to clients, and the administrator can receive complaints about cooks from clients and suspend the cook if necessary. The creation of this application required our collective knowledge of Java, Android Studio, GIT, and other material taught throughout the course, lab and tutorial components of SEG 2105. In the 4 deliverables submitted for this project, the division of work within the team can be found in table 1 of this report. The final UML diagram can be found in Figure 1 of this report. All screenshots of the app can be found in figures 2-31 of this report, placed after the lessons learned text.

Team Member	Deliverable 1	Deliverable 2	Deliverable 3	Deliverable 4
Areeb Akazai	<ul style="list-style-type: none"> Creating the main activity screen and welcome screen after successful login Programming "log in button" to redirect to the welcome activity Validating parameters for sign up activities 	<ul style="list-style-type: none"> Creating all activities required Locking a suspended cooks account (frontend + backend) Programming onClick functions for activities Unit test cases 	<ul style="list-style-type: none"> Creating all activities required Front end for suspended cook Cook backend (add & remove a meal) 	<ul style="list-style-type: none"> Final report Creating all activities required Backend for cook and admin Testing app before submission
Abdullahi Eid	<ul style="list-style-type: none"> Backend for Client, Cook, Administrator login Backend for Client, Cook signup Database functionality Validating user log in Submitting on brightspace 	<ul style="list-style-type: none"> Database functionality Submitting on brightspace Administrator backend (complaints action) Unit test cases Testing app before submission 	<ul style="list-style-type: none"> Database functionality Submitting on brightspace Backend for suspended cook Unit test cases Cook backend (deleting meal) . 	<ul style="list-style-type: none"> Database functionality Submitting on brightspace Backend for client functionality (searching, viewing, purchase requests) Front end for cook
Wanis Hassan	<ul style="list-style-type: none"> UML Diagram User interface Testing app before submission 	<ul style="list-style-type: none"> Administrator list complaint backend + frontend (viewing complaints) UML diagram 	<ul style="list-style-type: none"> UML diagram Validating parameters Front end for suspended cook 	<ul style="list-style-type: none"> UML diagram All Front end and user interface Testing app before submission
Hasnain Murtaza	<ul style="list-style-type: none"> User Interface for all activities Testing app before submission Camera functionality for cook signup 	<ul style="list-style-type: none"> UML diagram Testing App before submission User interface for all activities 	<ul style="list-style-type: none"> UML diagram Testing App before submission User interface for all activities Validating parameters 	<ul style="list-style-type: none"> UML diagram Testing App before submission User interface for all activities

Table 1: Contributions of each team member for the 4 deliverables of this project.

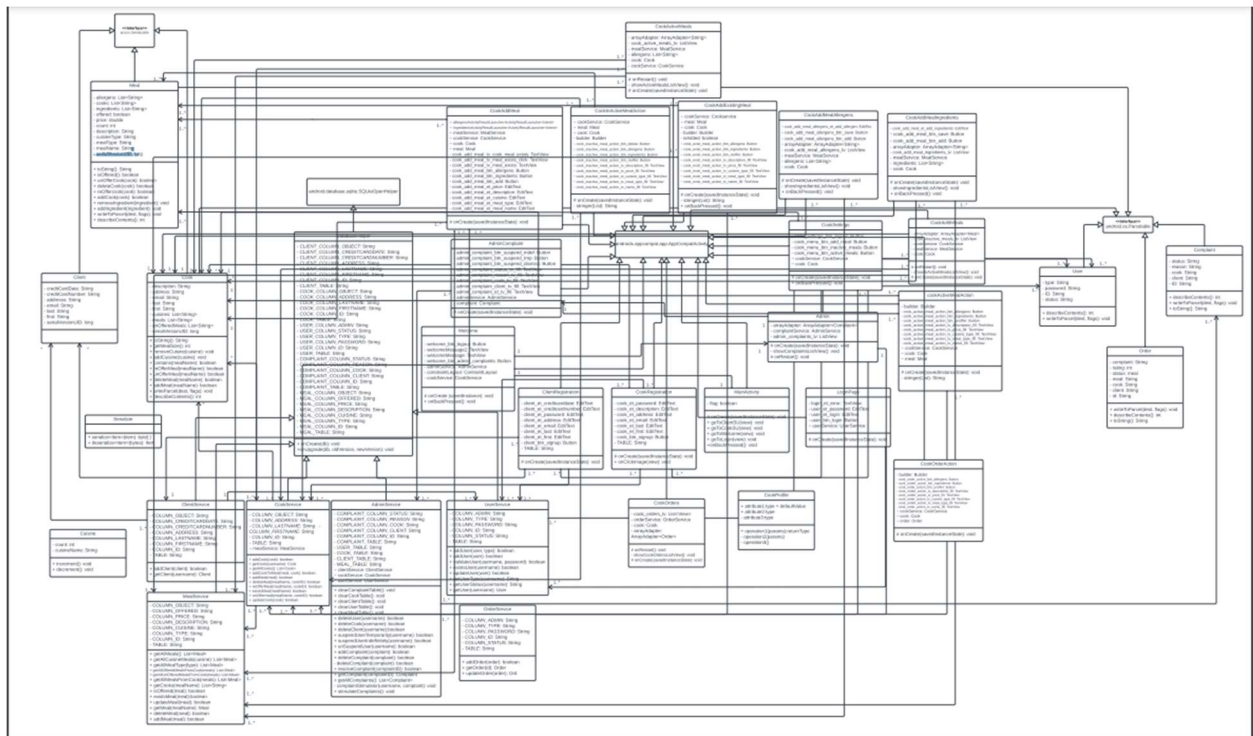


Figure 1: image of the final UML for the application. See Github for better readability.

The creation of this application included many learning curves for the entire team. The largest being the importance of well organized, commented code. For most of us, this project is the first time we have been tasked with understanding, debugging and contributing to code that was not entirely written by ourselves, or provided by an academic instructor. It became evident early into the works of deliverable 1 that a standard for variable names, commenting code, and writing appropriate commit messages for all git pushes would be required for the construction of this application to proceed smoothly.

Another lesson learned from this project is the importance of a UML diagram. Sometimes multiple classes were created in a single git push, and even with comments/commits it was difficult to understand the hierarchy of each class and its functions. A properly constructed UML diagram aided in understanding the hierarchy of our code.

Proper communication is essential for team based projects, which is a lesson we learned from this project. With other responsibilities to tend to throughout the duration of this project, it was important for each team member to be aware of what was expected from them, with internal deadlines set to benefit the team as a whole. For example, the back-end of the code needed to be completed in advance of the actual deliverable due date, to give the members creating the UML adequate time.

The learning of new technologies and debugging were two skills that this project helped develop. For the entire team, this was our first experience using Android Studio, SQLite, and

GitHub. There were some complications early on with understanding these new technologies which required self-learning. The importance of debugging is another lesson learned from this project. With code as large as this, it is sometimes difficult to diagnose why the application is not behaving as expected, and the debugger tool is essential in finding the part of the code at fault.

To conclude, this project resulted in numerous lessons learned that I believe will benefit all members of the team in their future academic and professional endeavors.



Figure 2: Home page of the application

The image shows a smartphone screen displaying the sign-up screen for a client. The status bar at the top shows the time as 10:52. The screen contains several input fields for user registration: 'First Name', 'Last Name', 'Email', 'Password', 'Address', 'Credit Card Number', and 'Credit Card Date'. Each field is represented by a text label followed by a horizontal line for input. Below these fields is a red button with white text that says 'SIGN UP'. At the bottom of the screen, there is a standard Android navigation bar with back, home, and recent apps icons.

Figure 3: Sign up screen for client

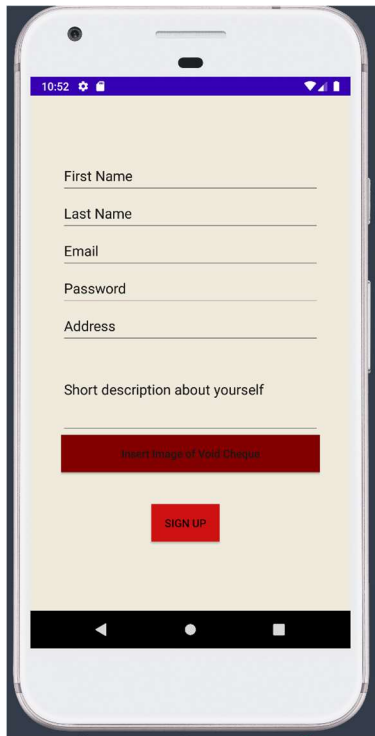


Figure 4: Sign up screen for cook

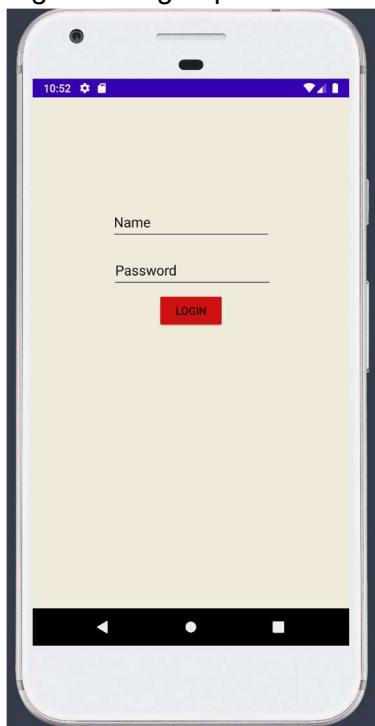


Figure 5: Log in screen for cook, client, and administrator

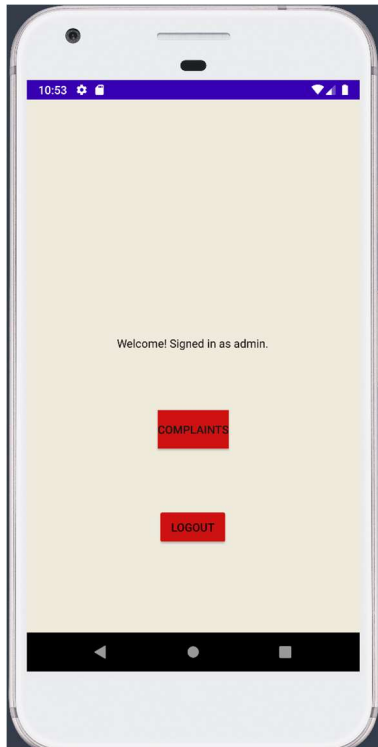


Figure 6: Welcome screen for admin

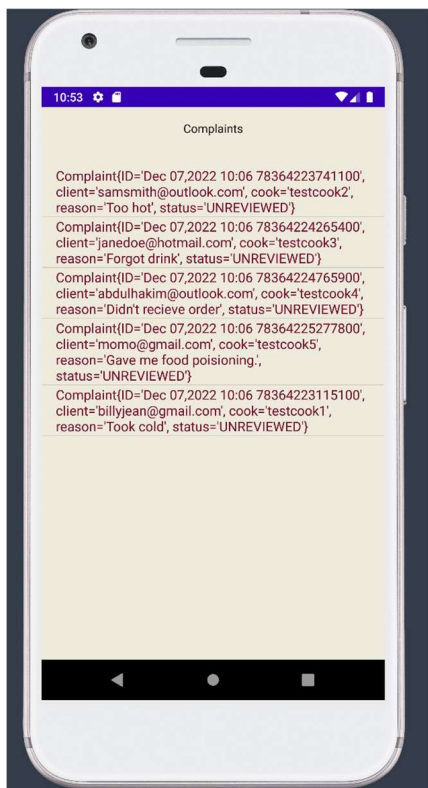


Figure 7: Admin complaints list

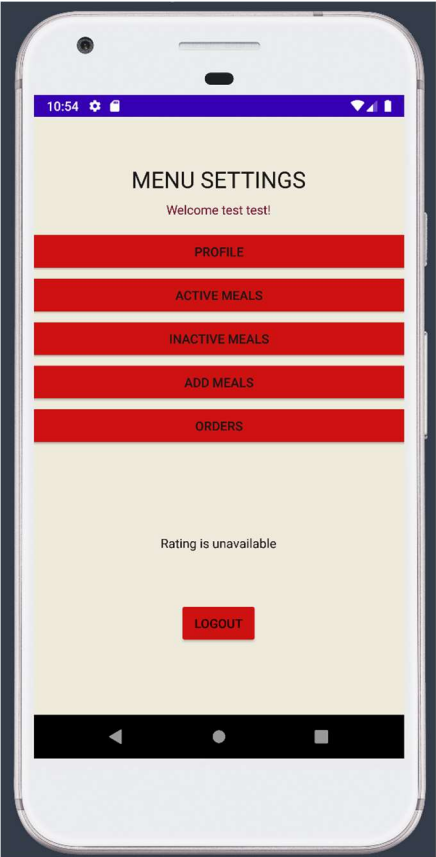


Figure 8: Cook welcome screen

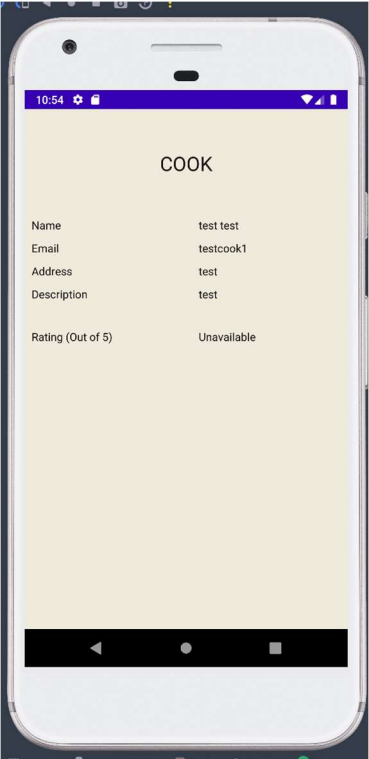


Figure 9: Cook profile screen



Figure 10: Cook active meal screen



Figure 11: Cook inactive meals screen

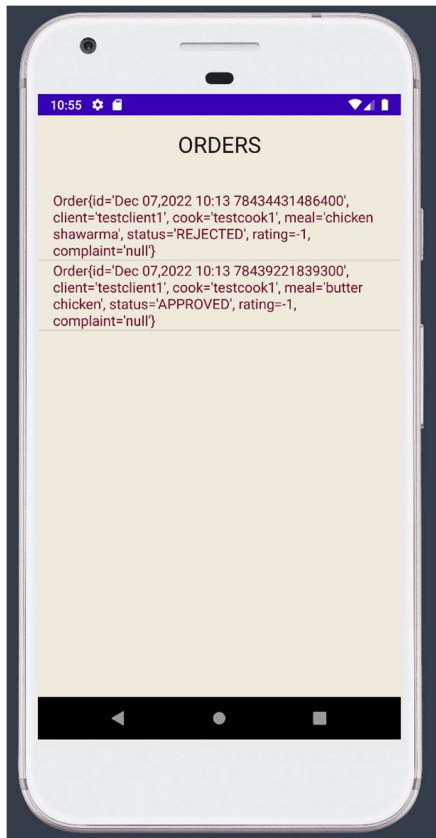


Figure 12: Cook orders screen

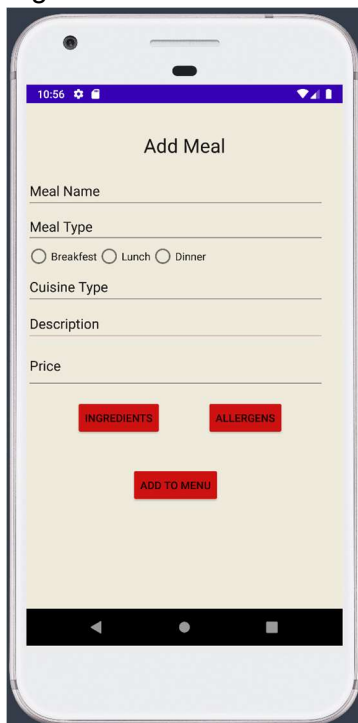


Figure 13: Cook add meal screen



Figure 14: Cook add allergens to add meal screen

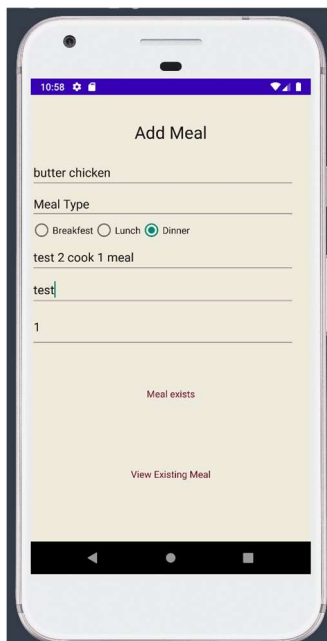


Figure 15: Error meal if cook adds meals with the same name

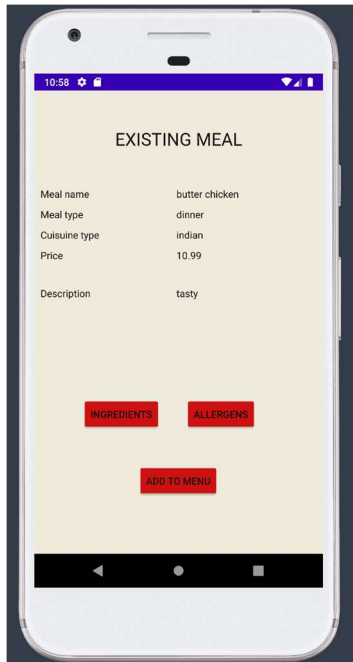


Figure 16: cook redirected to existing meal screen

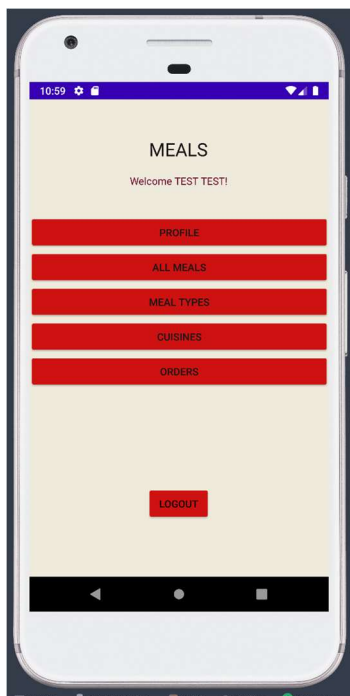


Figure 17: Client welcome page

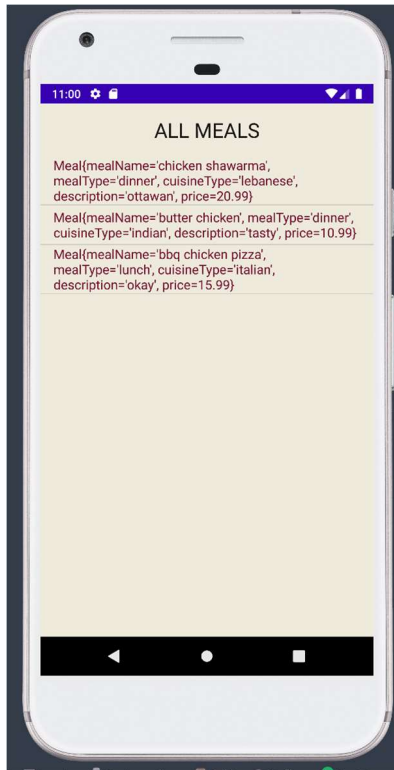


Figure 18: Client view of all meals

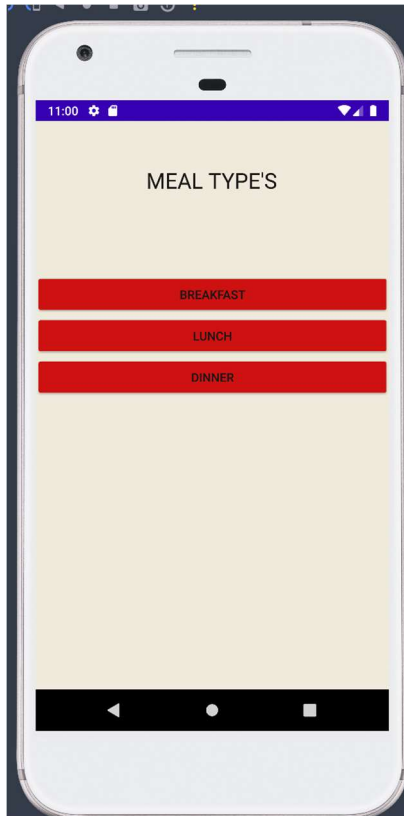


Figure 19: Client view of meal types

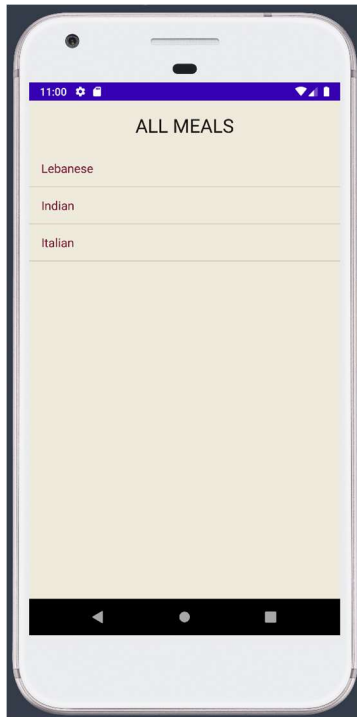


Figure 20: Client view of search by cuisine

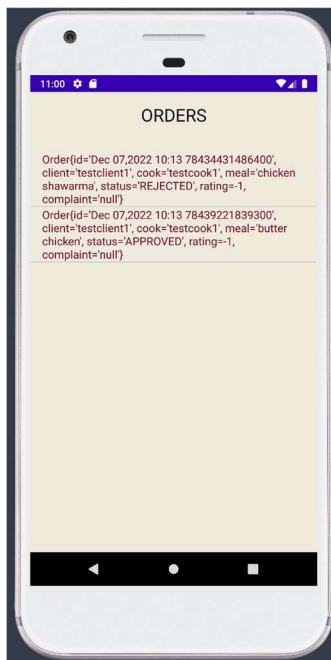


Figure 21: Client view of orders

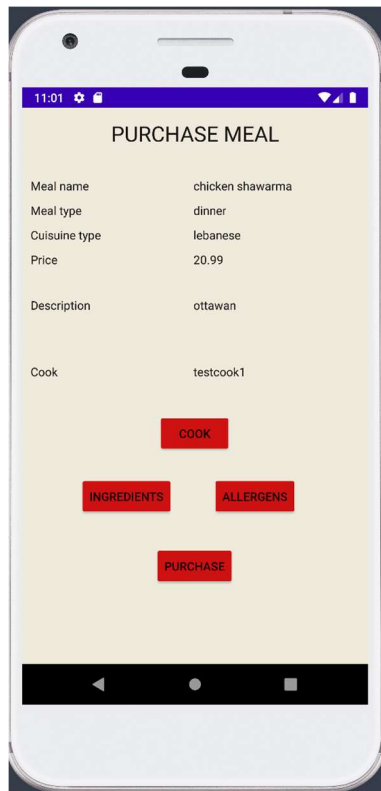


Figure 22: Client view of purchase meal

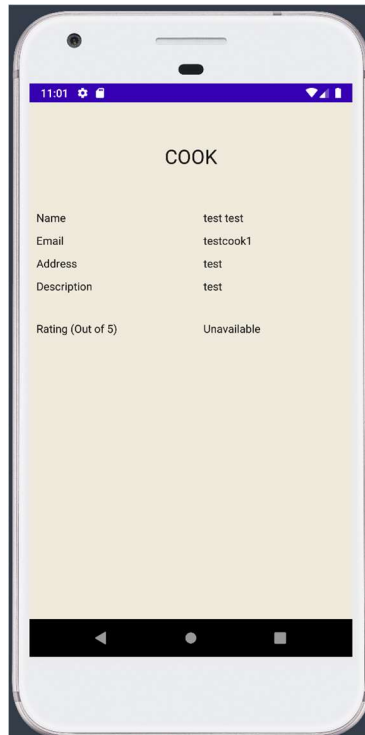


Figure 23: Client view cook screen

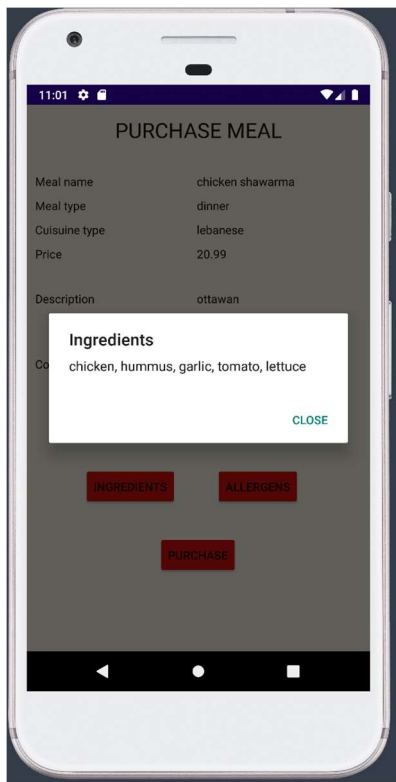


Figure 24: Client view ingredients of meal screen

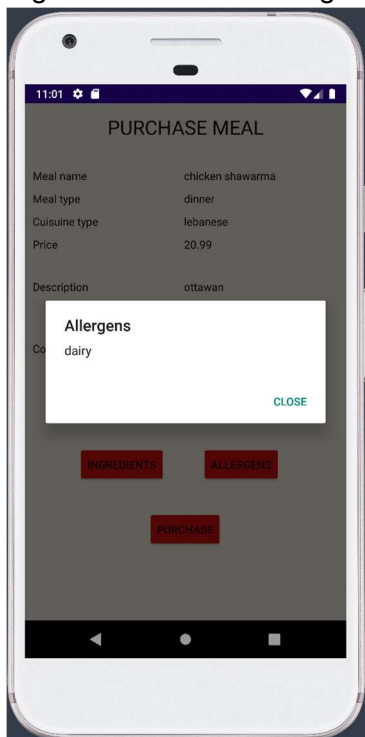


Figure 25: Client view of allergens screen

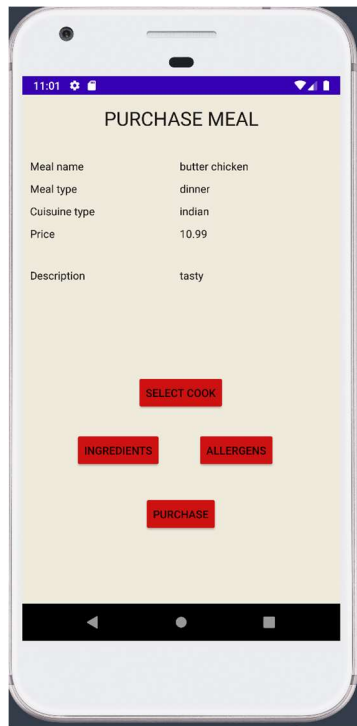


Figure 27: Client purchase meal screen

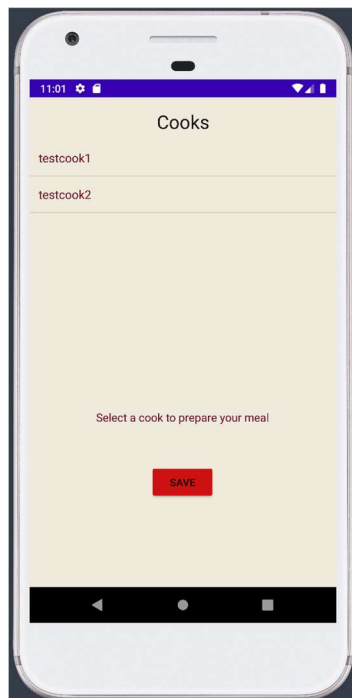


Figure 28: Client select cook screen



Figure 30: Client view specific order details screen

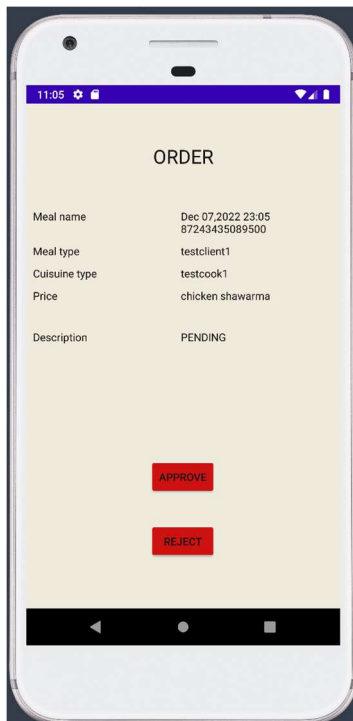


Figure 30: Cook view order screen

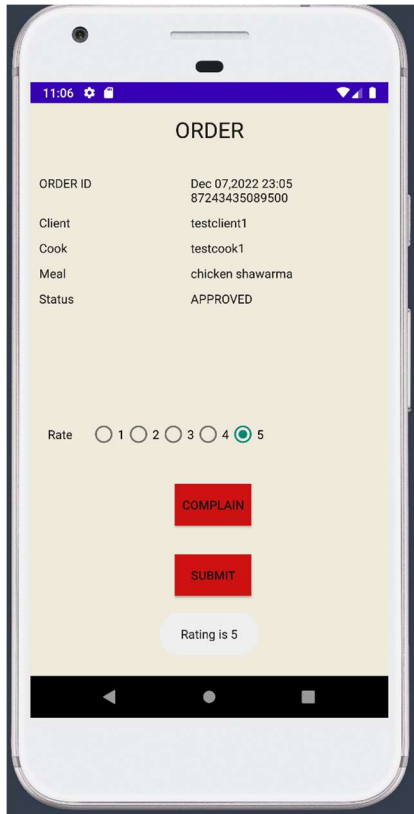


Figure 31: Client feedback on order screen

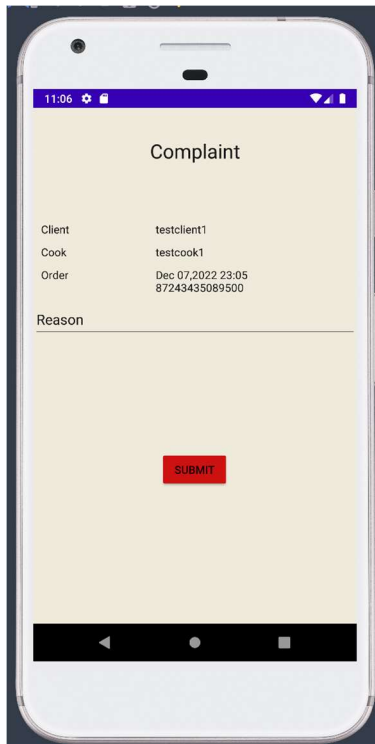


Figure 32: Client complaint screen