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Benkei Sushi Order Calculator Milestone

Abstract:

The Benkei Sushi Order Calculator was designed specifically for a restaurant called Benkei Sushi and Japanese. The order calculator would take the inputs of the waiting staff or managerial staff, and then calculate the final bill including taxes and service fees. The order calculator will be an offline GUI program. This allows for quicker calculations with less margin of error compared to using a calculator by hand. This also allows for multiple devices to use the same program throughout the restaurant and have multiple workers using it to fill out order tickets quicker independently for each of their given sections of the restaurant. This would be set up by placing a few stations around the restaurant for the staff to go to and calculate bill and check totals and each station would correspond with a section of the restaurant that a member of the staff is designated to manage. Program mainly used to replace calculators that give more room for input error from the employee.

Introduction with Requirements:

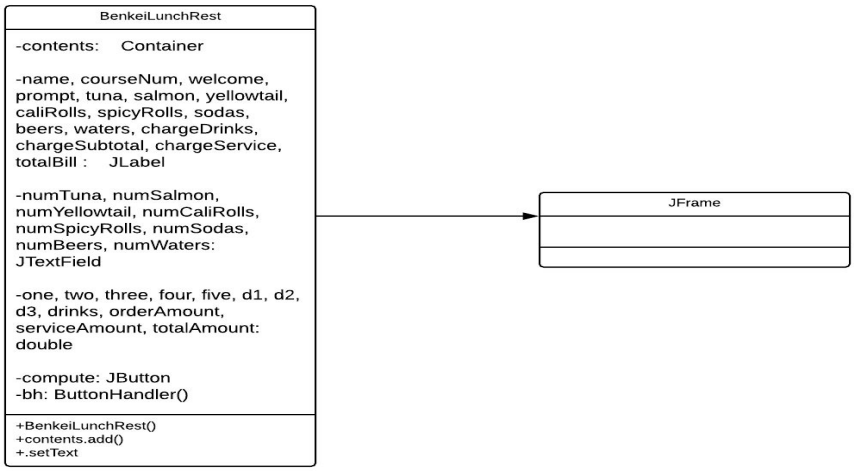
Benkei Sushi was a restaurant that had employed me for a while and the system that the restaurant used was very outdated. So outdated that the most advanced equipment of technology that is used in daily operations of the restaurant is a four function calculator. The way of making the total check/bill was always tedious and had more room for error than using a software or POS system. The reason for this is that the managers and the staff are not trained

in how to use a POS system, so everything has been written by hand and the order totals have all been calculated using a four function calculator. With this new GUI program, the staff now have an easy software to use that only requires inputs of the number of each food or beverage item being ordered. Then with a click of the button, the total bill price will appear.

The main requirements for this program were to: make it easy enough for staff who are not trained in operating a POS system to use, to make it quick enough to be used regularly in a fast-paced restaurant environment, to calculate tax/service fees, to calculate subtotal, to calculate drinks total, and to calculate the total bill for an order. The system so far only has one program that is meant for the lunch menu, but another GUI based program will be added in order to be used during dinner hours where certain menu items are added and substituted. By separating two different programs for lunch and dinner, it allows for less confusion because the prices change when transitioning from lunch hours to dinner hours. GUI programming was implemented because it makes the program look more presentable and look less complex for the user.

Class Diagram for Lunch Program:

BenkeiLunchRest extends JFrame



User Manual:

Input the number of orders in the corresponding boxes to the right of the label. For example if a customer order 2 pieces of sushi, the staff member should input “2” in the box to the right of the “Tuna: $3.00” label. After plugging in all the number of orders, click on the “Calculate Bill” button to get the drinks total, the subtotal, the services/taxes and the total bill. The program can stay open the whole duration of a shift, and to reuse, simply just replace the numbers from the first order with numbers from the next order and click “Calculate Bill” again to get the totals.

Conclusion:

The programs are all used to easily calculate the total bills so that the waiting staff does not need to use a four function calculator to input many numbers that may get messed up in the process of input. More things needed to be added would include a dinner menu program that would be used during dinner hours, and more menu items need to be added to ensure the full menu is captured and displayed for the waiting staff. This will allow Benkei Sushi to steadily become more efficient and more technologically advanced. Less mistakes will occur as a result of implementing these GUI programs.

References

"Part 3: GUI Programming." *Introduction to Java Programming and Data Structures: Comprehensive Version*, by Y. Daniel Liang, Pearson Education, 2017. https://doc.lagout.org/programmation/Java/Introduction%20to%20Java%20Programming%20%2810th%20ed.%29%20%28Comprehensive%20Version%29%20%5BLiang%202014-01-06%5D.pdf