

Criterion B: Design

Test Plan

Test Type	Nature of Test	Example
Test table sort sub-procedure	Testing to ensure that the tables in the “tables” array are sorted properly in ascending order by number of seats.	User enters three tables, with number of seats of 4, 10, and 6 respectively. The sort should sort the tables to have them as 4, 6, 10.
Test table assignments	As guests enter, each waiter is assigned a table, with the waiter with the least assignments getting assigned.	4 guests walk into the restaurant, and the system assigns Waiter Sam the table because Waiter Josh already has Table 3. The guests are brought to Table 5 under Sam.
Test ordering system	The ordering system finds the dish desired from the “dishes” array, and then adds it to the table’s “orders” array if it is not full.	Table 1 orders Dish “Salmon”. “Salmon” is promptly found in the “dishes” array, then added to the “orders” array of Table 1 if there is additional space for orders.
Test table clearing	In the main menu, there is an option to instantly clear a table for the next guest. The table’s bill is reset to \$0, the “orders” array is cleared, and the boolean “occupied” is reset to false.	Table 6’s guests leave, and the table is cleaned. Waiter Brenda goes into the system and selects Table 6 to be cleared. It is now marked as unoccupied, the orders cleared, and bill reset for the next guest.
Test payment system	The payment system can currently accept cash or credit card payments from customers. Both allow the customer to choose a tip amount, and the cash payment will give the change needed for the customer.	Table 4 runs a tab of \$44 and decides to tip \$7 and pay with cash. They give the waiter \$60, and when entered into the system, the system should read that the total is \$44, and with the tip, the change is \$9.
Test revenue calculating	The revenue of the restaurant should always be added to every time a customer pays for their meal. This test will ensure that the revenue is kept properly.	Table 2 runs a tab of \$3 and Table 3 runs a tab of \$5. Both check out, and the total revenue should read \$8.

Flowchart Diagrams

Entering Tables Algorithm

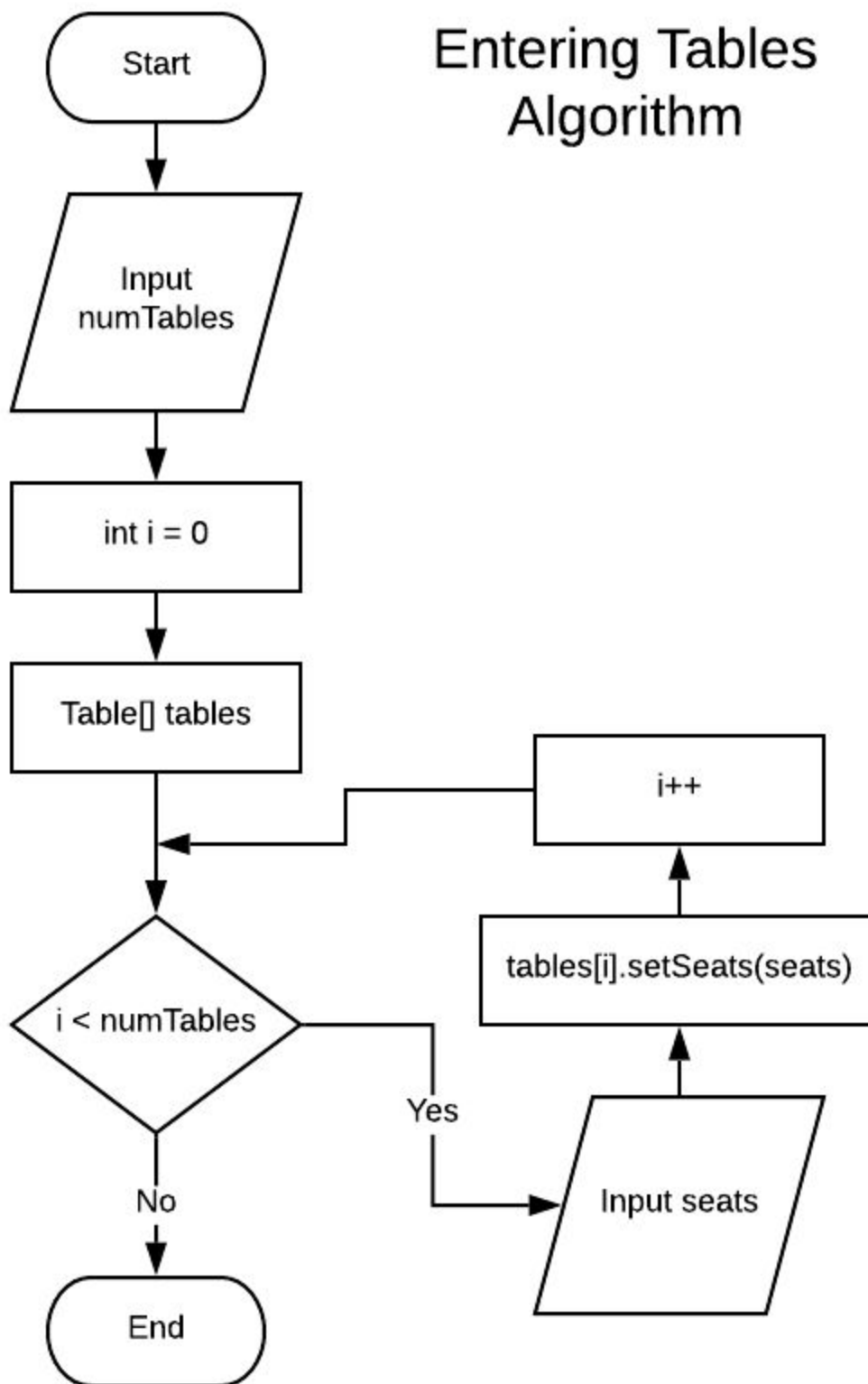
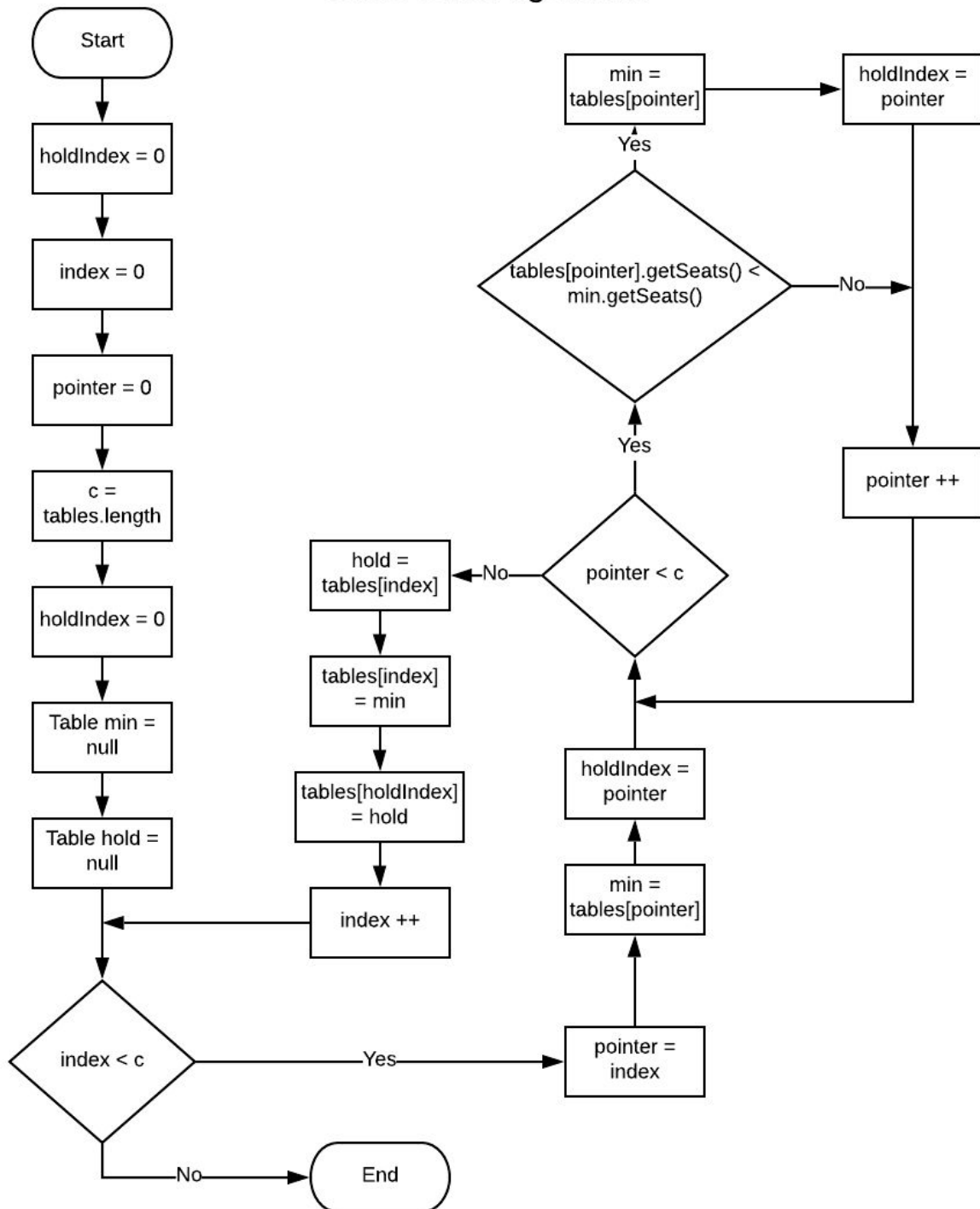
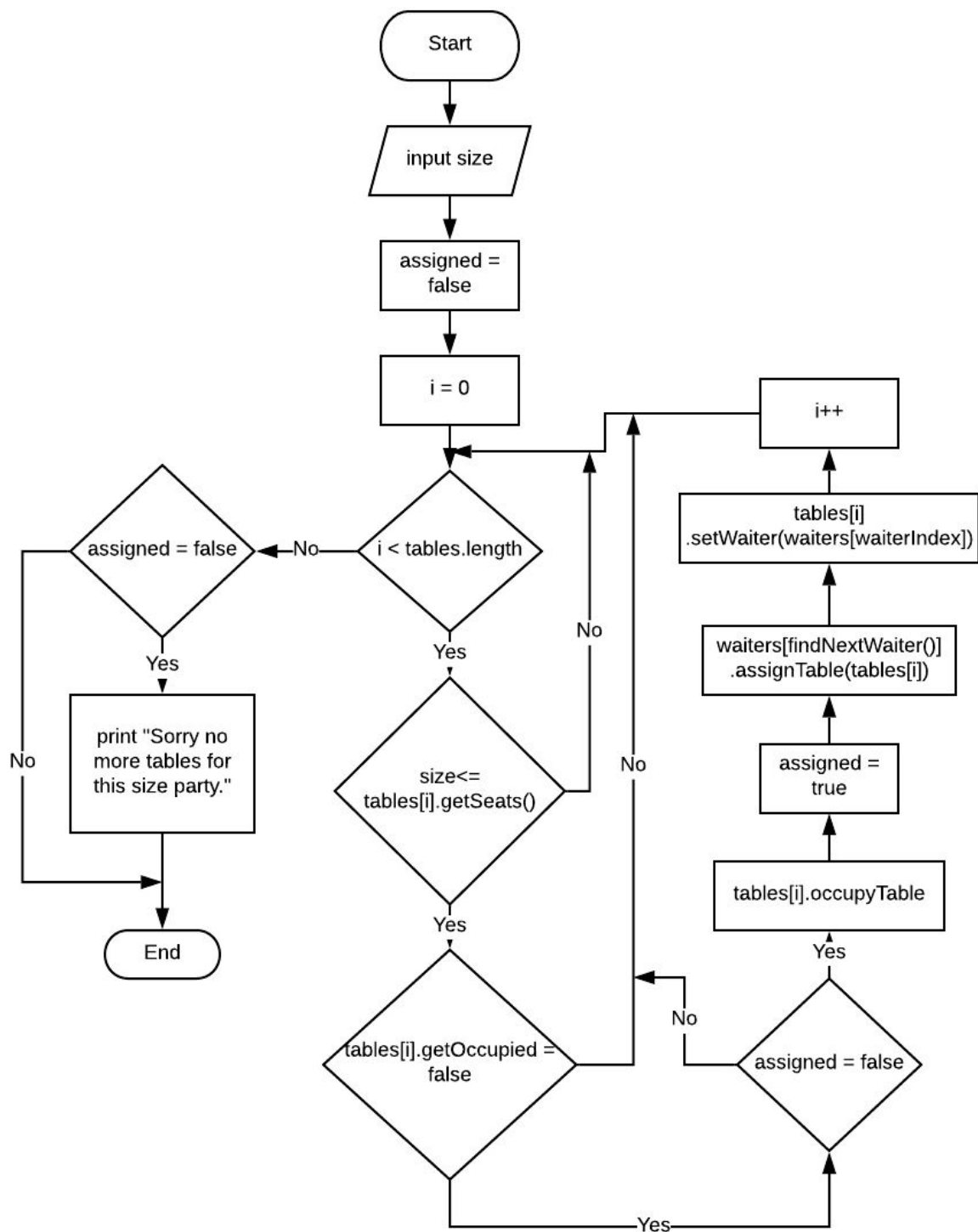


Table Sort Algorithm



Seat Guests and Assign Waiters Algorithm



Context Diagram

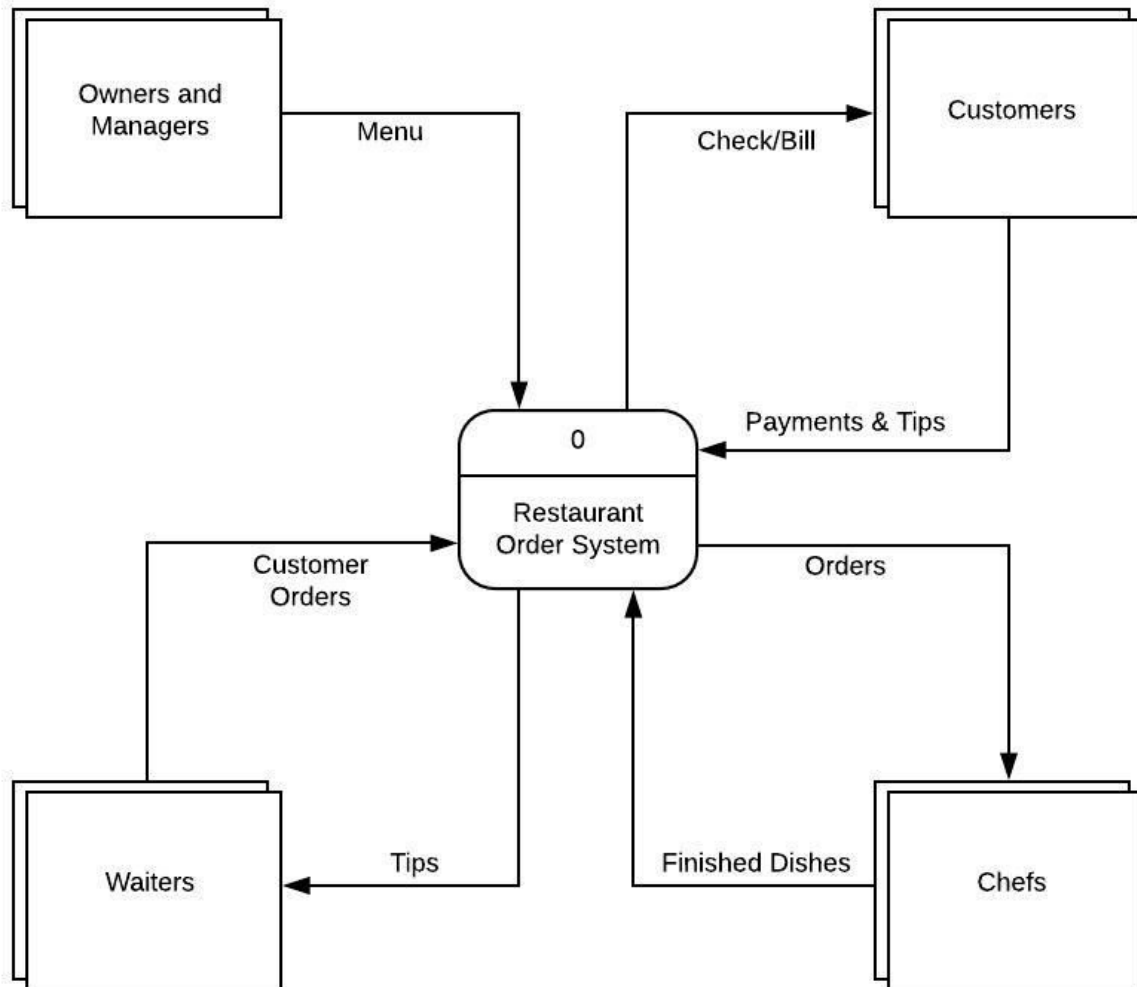


Diagram 0

