(This text also has been added to the program file)

Project Description

Project Name: Restaurant Management System

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This project has been implemented keeping the space management of any restaurant in mind. In the beginning of the program it asks user to enter the size of the floor and size of the table that will be placed throughout the space.

We assumed the floor is square shaped and so the table.

We consumed additional 2 square feet space to keep gap between tables. So total number of tables for the space have been calculated using following formula:

Number of maximum table = Size of the floor space/(Size of the table + 2)

The value 2 is constant spacing between every table.

After initial input it will display maximum possible table when the user click **confirm** button. The new interface with table layout will be loaded on screen when user click the **continue** button.

User can book any table from the layout by clicking the **reserve** button. When the user click reserve button it will turn in red to denote that table has been reserved. For every table there is also a Bill button. This Bill button will help to generate bill for that table with table number and a randomly generated reference number.

In "Bill interface", user can select the item from the check button and place the price in the text field.

TOTAL button will generate the total bill based on value placed by the user. If anything goes wrong, user can reset all values by clicking RESET button and corresponding error will be shown on the same interface.

How this program is Scalable:

To prove this program as a scalable solution we implemented following features:

Table Layout:

The table layout will be created dynamically based on user input. It can generate layout for 0 to any number(since we used a picture, it might take long time, so its better to use reasonable large number to test the scalability.)

For a test run you can use floor size as 100 and table size 4. Our program also capable of handing situation like 0 table to infinitely large number (e.g maximum size of the integer)

Check Button and Price Entry Fields:

We implanted check buttons and Price Entry fields in a such a way that, whenever a new food item is added to the global constant named **MANU_LIST,** corresponding check button and price entry fields will be generated accordingly for the newly added food item.