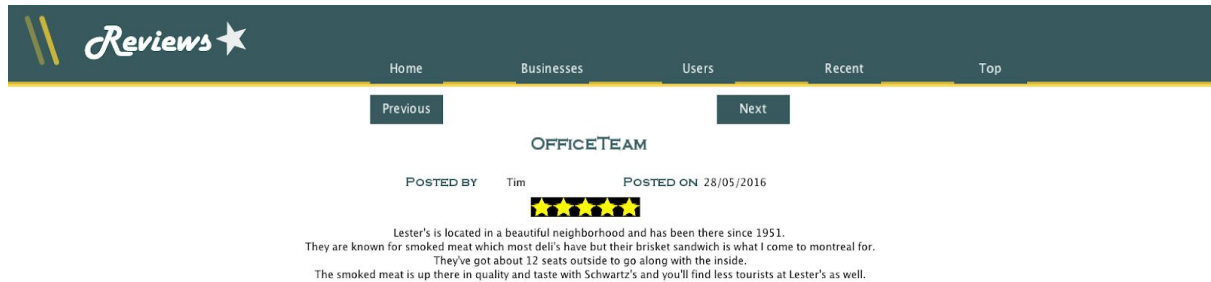

Programming Project Report

Group 26

Dearbhla Boylan, Emily Harte, Evan McCroary, David Urdaibay



Functionality

Components of the program:

- Handling user commands
- Reading in the data
- Selecting subsets of the data
- Drawing the data to the screen

Reading in the Data and Drawing it on the screen

For taking in the data a table is used. The table copies the data from the spreadsheet on to a table with a number of columns equal to the amount of headers and one row for each line it reads.

Each row of the table creates a single “Review“object. There is a for loop that goes through each row of the table by creating a new “TableRow” object at the start of the loop and passing in the current row value of the table onto it. Then to pass on the values of the specific variables e.g “businessName” the “getString” function is used from the “TableRow” object and in the parameters header of that column is given and it should return the value from that row and column.

Handling user commands

The widgets are made in the widget class. This class contains the constructor for the widgets , a method called getEvent, a draw function and getter and setter methods for the widget. The constructor for the widgets is made up of the x and y position of the widget , the height and width of the widget , the widget label , event number , color and font.

The draw function of the widget class the widget is drawn as a rectangle and filled with text which is the label that is passed in from the constructor.

The getEvent method returns an integer. Each widget is assigned an event number. The get event method takes in the x position of the mouse and the y position of the mouse as parameters. If the position if the mouse is inside the widget the method returns the event number of that widget. This method is called in the main in the mousepressed function and a switch statement is used to carry out the corresponding function in the case of each event button.

Selecting subsets of the data

In order for the user to select subsets of the data we use widgets. The main widgets on the interface are the widgets at the top of the screen - Home, Businesses, Users, Recent, Top.

Home

The home widget is displayed on every screen and brings the user back to the home screen when clicked on. This is done by using a switch statement and a function called

getEvent()).The switch statement changes the screen depending on which widget was pressed as each widget has a different event button.

Businesses

This widget when clicked on will bring the user to a screen where they can click on a business name (another widget) and all of the reviews about that business will be displayed and the user will be able to go through them by clicking on the” previous” and “next” widgets.

To sort through the reviews for a specific business , a variable called “busName “ is passed into a function to filter through the views. This variable is change in a switch time each time that a business widget is clicked to the name of that business. When the name is passed into the filter function , a for loop is used to loop through the list of reviews , the business name is compared to the name of each business in the list. If the names are the same the review is added to a new ArrayList which is the list of reviews that will be displayed on the screen/

Users

This widget is very similar to the business widget and carries out the same function as the business widget except it allows the user to select to read reviews of certain users. As there were a larger number of widgets relating to this class, a for loop, instead of a switch statement, is used to determine which widget has been pressed.

Top Rated

A function was used to get the top rated reviews and store in array list.

Most Recent

A function was used to get the most recent reviews and store in array list.

Next and Previous

These widgets allow the user to flick through the reviews displayed on the screen. The review displayed changes by increasing and decreasing the index of the array list containing the reviews. When the “next” widget is pressed the index increases by one and when the “previous” widget is pressed the index is decreased by one. There are if statements used to take care of error handling. If the index is less than zero the screen will display the review of the first index (index zero). If the index is about to be increased to a number which is greater than the size of the array list where the reviews are stored the screen will display the last review in the array list.

How We Worked as a Group

Our group met up twice a week to work as a group on the project. We divided the work up each week depending on what needed to be done. If any of us encountered errors while on our individual components we let the group know and we worked together as a group to solve

those errors. When coding together, we had one person typing in the code and the others suggesting changes or pointing out errors.