Fix Bugs of the Application

Developer Details

This project was developed by Ashraf M. Husain and stored in a repository in GitHub created using the email account ashhusai@cisco.com.

GitHub Repo Link: https://github.com/AshrafMH22/FixingBugs.git

Objectives

A. Add the missing source code to the application based on searching technique. Find the appropriate comments to code for the searching technique.
B. Write source code for sorting the predefined array and ensure the functionality of the application. Find the appropriate comments to code for sorting the predefined array.

Algorithms Used in Completing the Task

Searching Algorithm

```
  private static void searchExpenses(ArrayList<Integer> arrayList) {
        int leng = arrayList.size();
        System.out.println("Enter the expense you need to search:\t");
        Scanner element = new Scanner(System.in);
        int  ele =  element.nextInt();
        for(int i = 0; i<leng; i++)
        { if (ele == arrayList.get(i)) {
            int index = i; int pos = index+1;
            System.out.println("\nElement " + ele + " found at index: " + index + " and position:
"+ pos + "\n");
            return;
        }
        }
        System.out.println("\nElement not found\n");
        return;
    }
```

Output:

```
****************************************

         Welcome to TheDesk

****************************************
1. I wish to review my expenditure
2. I wish to add my expenditure
3. I wish to delete my expenditure
4. I wish to sort the expenditures
5. I wish to search for a particular expenditure
6. Close the application

Enter your choice:
5
Enter the expense you need to search:
32000

Element 32000 found at index: 3 and position: 4

1. I wish to review my expenditure
2. I wish to add my expenditure
3. I wish to delete my expenditure
4. I wish to sort the expenditures
5. I wish to search for a particular expenditure
6. Close the application

Enter your choice:
6
Closing your application...
Thank you!
```

Sorting Algorithm

```
private static void sortExpenses(ArrayList<Integer> arrayList) {
      int arrlength =  arrayList.size();
      for (int i = 0; i < arrlength; i++) {

         for (int j = arrlength - 1; j > i; j--) {
            if (arrayList.get(i) > arrayList.get(j)) {

               int tmp = arrayList.get(i);
               arrayList.set(i,arrayList.get(j));
               arrayList.set(j,tmp);
            }

         }

      }
      for (int i: arrayList) {
```

```
            System.out.println(i);
        }
        System.out.println();
        return;
    }
```

Output:

```
************************************

        Welcome to TheDesk

************************************
1. I wish to review my expenditure
2. I wish to add my expenditure
3. I wish to delete my expenditure
4. I wish to sort the expenditures
5. I wish to search for a particular expenditure
6. Close the application

Enter your choice:
4
110
1000
2300
32000
45000

1. I wish to review my expenditure
2. I wish to add my expenditure
3. I wish to delete my expenditure
4. I wish to sort the expenditures
5. I wish to search for a particular expenditure
6. Close the application

Enter your choice:
6
Closing your application...
Thank you!
```

Pushing the code to GitHub repo

- Open your command prompt and navigate to the folder where you have created your files.

  cd <folder path>

- Initialize repository using the following command:

  git init

- Add all the files to your git repository using the following command:

  git add .

- Commit the changes using the following command:

  git commit -m <commit message>

- Link the remote and local repositories

  git remote add origin <remote URL>

- Push the files to the folder you initially created using the following command:

  git push -u origin master