HACETTEPE UNIVERSITY

Department of Computer Science & Engineering

BBM104 Introduction to Programming Laboratory Experiment 2

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Programming Language: Java

Subject: Classes, objects, encapsulation, and inheritance

Release Date : 03 /27/2019 Due Date : 04/17/2019

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-WHAT WAS THE PROBLEM?

In this assignment, We are expected to implement a simplified restaurant management system that has many properties in two main titles which are named setup and commands.

I created Java classes which are named

Assignment2, Item, Employer, Waiter, Table and Order. Firstly, I read the setup.dat file line by line to the end of the file. For each line, I use the given command and according to the command I call the related function. Then, I read the commands. dat file line by line to the end of the file. For each line, I use the given command and according to the command I call the related function.

I have Items arraylist and every item has stock count and name.

I have Employer[] employers list and the size of the list is 5.

I have Waiter[] waiters list and the size of the list is 5.

I have Table[] tables list and the size of the list is 5.

and I am doing the changes in the array's elements properties according to the given properties. All of the elements of the all arrays are an object that are cover the properties of the specified class.

SETUP.DAT

This file has a command 'add' and properties of Items, employers and waiters.

- *<u>add_item [Name];[Cost];[Amount]:</u> For this command, I created load function in Item class for adding new item according to the specifications of the item to the ArrayList of Items.
- *<u>add_employer [Name];[Salary]:</u> For this command, I created load function in Employer class for adding new employer according to the specifications of the employer to the Array of Employers.
- *<u>add_waiter[Name];[Salary]:</u> For this command, I created load function in Waiter class for adding new Waiter according to the specifications of the waiter to the Array of Waiters.

COMMANDS.DAT

This file has nine commands in total, and every command has specific properties.

- *create table [EMPLOYER NAME];[CAPACITY]: For this command, I created load function in Employer class for adding new table.
- *new order [WAITER NAME];[#CUSTOMER];[ITEM NAME]-[ORDER COUNT]: For this command, I created a function in Waiter class for adding new order to a table by checking whether there are available tables.
- *add order [WAITER NAME];[TABLE ID];[ITEM NAME]-[ORDER COUNT]:
 For this command, I created a function in Waiter class for adding new order to specified table if the commands parameters are true for the table.
- *check out [WAITER NAME];[TABLE ID]: For this command, I created a function in Waiter class for checking out of specified table if the parameters are true for the table.
- *<u>stock status:</u> For this command, I created a function in Item class for printing the status of items which are in stock.
- *<u>get table status:</u> For this command, I created a function in Table class for get status of tables and printing their status.(Free or Reserved)
- *<u>get order status:</u> For this command, I created a function in Order class for get status of orders and printing their status.
- *get employer salary: For this command, I created a function in Employer class for calculate salaries of employers and printing the new salaries to the screen.
- *<u>get waiter salary:</u> For this command, I created a function in Waiter class for calculate salaries of waiters and printing the new salaries to the screen.