HACETTEPE
University

EXPERIMENT 3

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Section : 03

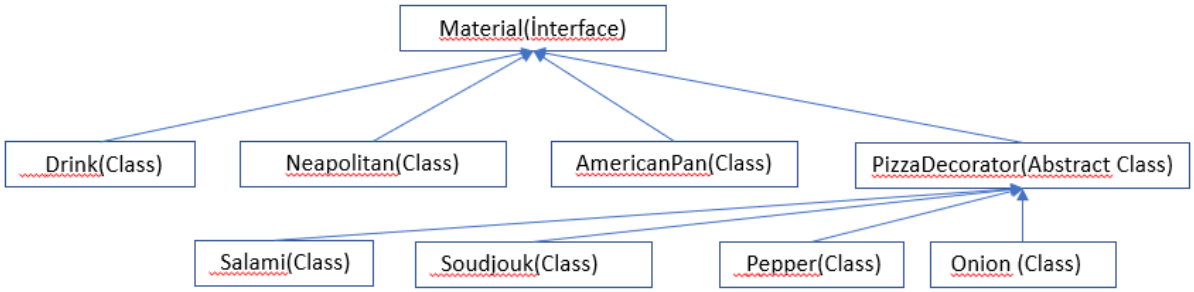
Programing Language : JAVA

Subject : Inheritance, Polymorphism, OOP

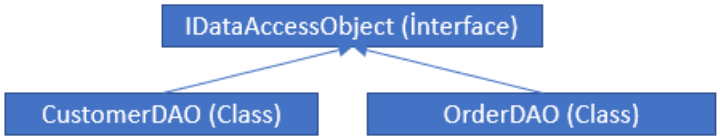
Explanation of Classes

There is exactly sixteen classes with main class . Also there is two interface in this code.

For Decorator Pattern part : (İgnore shape of the arrows)



For Data Access Object part : (İgnore shape of the arrows)



Explanation of Code

In the main class , some methods is works step by step with ReadWrite class.I mean, in the main class ReadWrite.inputTxt() is example for this methods. Also in ReadWrite class , There are private objects (IDataAccessObject customers = new CustomerDAO() , IDataAccessObject orders = new OrderDAO ()) . I use them in order to change databases , when we compare according to input.txt . If you ask me , When databases is created and where ? The Databases is created when objects is created which I mentioned above.

An object,which from CustomerDAO, is created. It's reference is IDataAccessObject .Also , every object , which is produced from CustomerDAO , has an ArrayList<Object> as private. It's name is customers. We can reach this ArrayList with getCustomers() and setCustomers() . After that again, an object,which from OrderDAO, is created. It's reference is IDataAccessObject. Also , every object , which is produced from OrderDAO , has an ArrayList<Object> as private.It's name is orderArray. We can reach this ArrayList with getOrderArray() and setOrderArray() . Also int OrderDAO and CustomerDAO implements IDataAccesObject so OrderDAO and CustomerDAO includes the methods which in IDataAccesObject . Right now we have databases, which is empty.

In the main class, ReadWrite.inputTxt() works and according to commands,which in input.txt, databases is changed.Right now If I have to mention working system of decorator pattern, Every order has an basket of materials , customer . addPizza and

addDrink methods. İn addPizza method , An array , which includes string , comes as argument. in for loop , I have reach classes, whose name is same with strings that in array , and their objects is created after that assigned to Material pizza . Lastly pizza is created (AmericanPan Salami …….).

If you aks me , How can we reach databases with using the objects (customers and orders which in ReadWrite class) , When we say customers.getAll() , we can reach. Right now we changed the databases. Also When Changes are done , summary of that changes is adding to outputArray which an ArrayList includes String .

In the main class ,ReadWrite.outputTxt() works and the informations ,which in outputArray , is printed to output.txt. ReadWrite.customerTxtUpdate() works and the customer database is printed to customer.txt . With ReadWrite.orderTxtUpdate() woks and the order database is printed. Finally the code is terminated.

Explanation of Algorithms

* Create empty databases(arrays)
* Make comparisons and fill the databases
* The changes are suppressed.
* The databases are suppressed.

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