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Course : BBM104 Introduction to Programming Laboratory II

Experiment : Assignment 4

Subject : Inheritance, Polymorphism OOP, Java

Data Due : 27.04.2018

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2. Software Using Documentation

2.1. Software Usage

In this experiment, I am expected to develop a Pizza Order system. Which can create new customers, include orders to customers, can add new things to order. And finally calculate the total paycheck.

3. SOFTWARE DESIGN NOTES

3.1. Description of the program

3.1.1. Problem

The aim of this experiment is to introduce you object-oriented programming and design with Java. You will learn the structure of a class, how classes interact, inheritance and polymorphism and basic input-output operations in Java. There will be two main parts to this assignment. One part consists of creating the system's input-output interface and implementing the logic for this interaction. The other part is defining (and implementing) the persistence backend (i.e. how we

store and retrieve the information our system uses). You should also use decorator design pattern in first part of the experiment. Your homework will take commands from an input file then it will print the results of these commands to an output file. You should use Data Access Objects (DAO) to manage your data.

3.1.2. Solution

My solution is: Firstly I have to write the DAO class for getting and writing and updating data from text file at wanted time. Then I have to create Pizza, Order and Customer classes for storing data. Then I have to create the input execute methods to my main class. Then I have to read the input.txt file and execute each line with methods.

3.2. Main Data Structures

Polymorphism is the ability of an object to take on many forms. The most common use of polymorphism in object oriented design occurs when a parent class reference is used to refer to a child class object.

A Java abstract class is a class which cannot be instantiated, meaning you can not create new instances of an abstract class.

An interface is a reference type in Java, it is similar to class, it is a collection of abstract methods. A class implements an interface, thereby inheriting the abstract methods of the interface.

3.3. Algorithm