

## **Hacettepe University: Computer Science and Engineering Department**

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**Course:** BBM104

**Experiment:** Hospital Management System By Java

**Subject :** Inheritance And Polymorphism

**Data Due:** 22.05.2020 – (23:59)

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**Main Program:** HU\_CENG Submit System > b21946606 > Main.Txt

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## 2. Software Using Documentation

**2.1 Software Usage:** Our program uses one input file (input.txt) in argument form and two input files (admission.txt and patient.txt) in program directory for applying commands in input file. At the end, our program edits admission file and patient file.

**2.2 Error Messages:** There is only one error message:

"An Error Occured While Reading File! Please Try Again!"

This error message occurs when reading input file. For handling this situation, you only need to be sure that input file is in correct format.

## 3. Software Design Notes

### 3.1 Description Of Problem

**3.1.1 Problem:** We need to develop a hospital management system. But this system must include input – output operations. Also our program must to work with maximum flexibility and maximum efficiency.

**3.1.2 Solution:** For solving that problem, we will use inheritance, polymorphism, input – output file operations and decorator design for maximum flexibility and maximum efficiency.

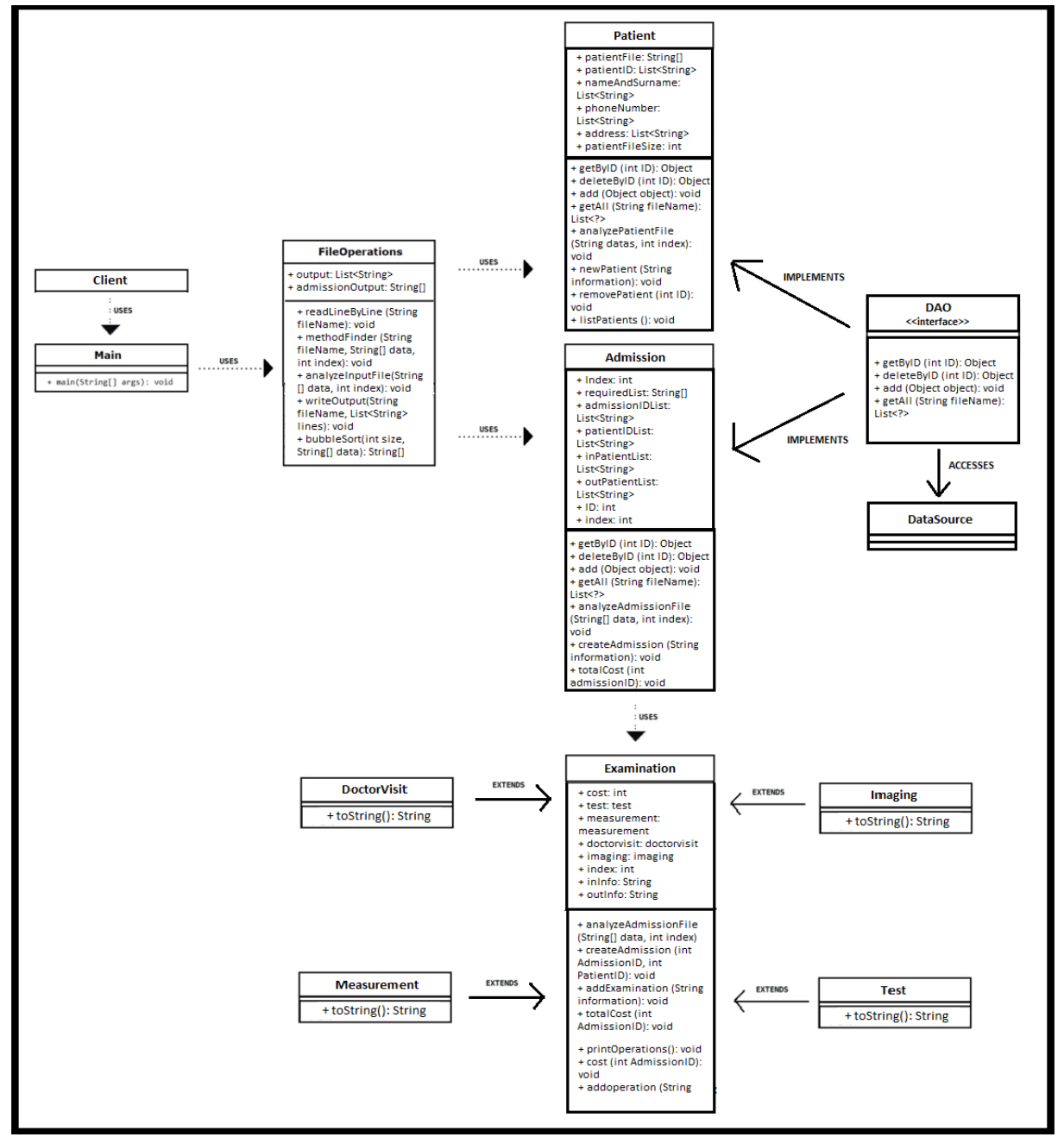
### 3.2 Algorithm

1. Read admission and patient files, analyze and save required data in arraylists.
2. Read input.txt file line by line.
3. Process stated operations in input.txt file.
4. After reading and processing input.txt file reanalyze and regroup data.
5. Update admission and patient files with using reanalyzed and regrouped data.

### 3.3 Special Design Properties

- Our program includes huge data access and data analyze operations in [DAO.java](#) and [FileOperations.java](#) files.
- Our program has stated methods (which stated in PDF of assignment3, in implementation details part).
- Also we print names of called operations in **examination.printoperations()** method.
- **Important Note:** In our program **examination.addoperation(new imaging(new test(new measurement())))** method doesn't call as stated in PDF. In our program, first we call **examination.addoperation(String info)** method, then this method creates required objects.

## 4. Class Diagram (UML Diagram)



## 5. References

### <Problem Definition Reference>

By BBM104 Team

Assignment3.pdf

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