Gebze Technical University
Computer Engineering

CSE 222 - 2018 Spring

HOMEWORK 6 REPORT

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1 INTRODUCTION

1.1 Problem Definition

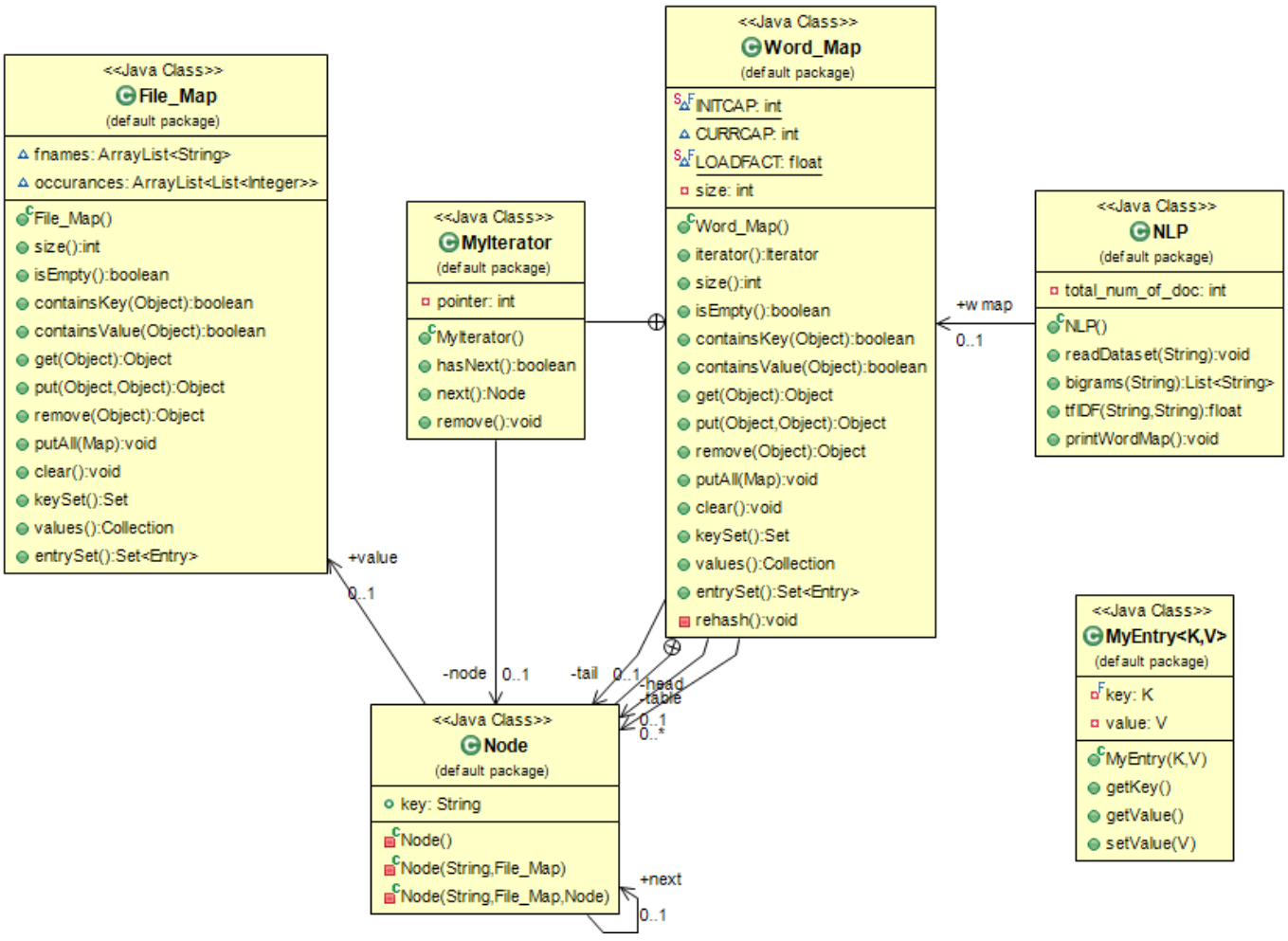
In this homework we implementing two different HashMap classes to perform basic Natural Language Processing operations, which was Bi-grams and TFIDF. Using HashMap for this structure for efficient. Word_Map has Node table, which Node has word and File_Map values. File_Map has ArrayLists of filenames and ArrayLists of List of indexes.

1.2 System Requirements

JDK 1.8 or greater release must be installed to compile this program. The compiled version of program will work any jvm installed environment.
Program will work at least 64 MB of physical RAM and 98 MB of free disk space for jvm.

2 METHOD

2.1 Class Diagrams



2.2 Methods Complexities

File_Map Class :

Size() -> O(1);
isEmpty() -> O(1);
containsKey () -> O(n);
containsValue () -> O(n);
get() -> O(n);
put() -> O(n);
clear() -> O(1);

Word_Map Class :

Size() -> O(1);
isEmpty() -> O(1);
containsKey () -> O(1);
containsValue () -> O(1);
get() -> O(1);
put() -> O(1);
clear() -> O(1);
rehash()->O(n)

3 RESULT

3.1 Test Cases

Each class methods tested inside main with given dataset files. All errors handled with exceptions.

3.2 Running Results