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# Code

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\* This class is used to store the main function

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**import** java.io.IOException;

**public** **class** TextBuddy{

**public** **static** **void** main(String[] args) **throws** IOException {

TextBuddyDriver instance = **new** TextBuddyDriver();

instance.bootUp(args[0]);

}

# }

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\* This class is used as the driver function for the TextBuddy

\* Implemented all the 5 operations which is to add, display,

\* delete, clear and exit

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\*/

**import** java.io.BufferedReader;

**import** java.io.BufferedWriter;

**import** java.io.File;

**import** java.io.FileReader;

**import** java.io.FileWriter;

**import** java.io.IOException;

**import** java.util.ArrayList;

**import** java.util.List;

**import** java.util.Scanner;

**public** **class** TextBuddyDriver {

**final** **static** String ***WELCOME\_MESSAGE\_PART\_1*** = "Welcome to TextBuddy. ";

**final** **static** String ***WELCOME\_MESSAGE\_PART\_2*** = " is ready for use";

**private** **final** **static** String ***ADD\_COMMAND*** = "add";

**private** **final** **static** String ***DISPLAY\_COMMAND*** = "display";

**private** **final** **static** String ***DELETE\_COMMAND*** = "delete";

**private** **final** **static** String ***CLEAR\_COMMAND*** = "clear";

**private** **final** **static** String ***EXIT\_COMMAND*** = "exit";

**private** **static** String *FILENAME*;

**static** **int** *lineCounter* = 1;

**static** FileWriter *newFile*;

**static** BufferedWriter *fileWriter*;

**static** Scanner *commandScanner* = **new** Scanner(System.***in***);

**static** FileReader *fileReader*;

**static** BufferedReader *textReader*;

**public** **void** bootUp(String filename) **throws** IOException {

*fileInitializer*(filename);

TextBuddyDriver.*printWelcomeMessage*(filename);

*commandHandler*();

}

**private** **static** **void** commandHandler() **throws** IOException {

**while** (**true**) {

String commandInput = *commandScanner*.next();

**if** (commandInput.equals(***ADD\_COMMAND***)) {

*addCommandExecution*(*commandScanner*.nextLine());

} **else** **if** (commandInput.equals(***CLEAR\_COMMAND***)) {

*clearCommandExecution*();

} **else** **if** (commandInput.equals(***DELETE\_COMMAND***)) {

*deleteCommandExecution*(*commandScanner*.nextLine());

} **else** **if** (commandInput.equals(***DISPLAY\_COMMAND***)) {

*displayCommandExecution*();

} **else** **if** (commandInput.equals(***EXIT\_COMMAND***)) {

*exitCommandExecution*();

}

}

}

**private** **static** **void** exitCommandExecution() **throws** IOException {

*fileWriter*.close();

*commandScanner*.close();

System.*exit*(0);

}

**private** **static** **void** displayCommandExecution() **throws** IOException {

*fileReader* = **new** FileReader(*FILENAME*);

*textReader* = **new** BufferedReader(*fileReader*);

String line;

**int** numberOfLines = 0;

**while** ((line = *textReader*.readLine()) != **null**) {

System.***out***.println(line);

numberOfLines++;

}

**if** (numberOfLines == 0) {

System.***out***.println(*FILENAME* + " is empty");

}

*textReader*.close();

*fileReader*.close();

}

**private** **static** **void** deleteCommandExecution(String commandInput)

**throws** IOException {

*fileReader* = **new** FileReader(*FILENAME*);

*textReader* = **new** BufferedReader(*fileReader*);

**int** numberOfLinesToBeCopied = 0;

String line;

List<String> bufferList = **new** ArrayList<String>();

// Used to store all the inputs from the file to be

transferred to a new file without having the line to be deleted

String messageToBeDeleted = "";

**while** ((line = *textReader*.readLine()) != **null**) {

**if** (!line.substring(0,1).equals

(commandInput.substring(1))){

bufferList.add(line.substring(3));

numberOfLinesToBeCopied++;

} **else** {

messageToBeDeleted = line.substring(3);

}

}

*lineCounter* = 1;

FileWriter afterDeleteFile = **new** FileWriter(*FILENAME*);

BufferedWriter newFileWritter = **new**

BufferedWriter(afterDeleteFile);

**for** (**int** i = 0; i < numberOfLinesToBeCopied; i++) {

newFileWritter.write(*lineCounter* + ". " +

bufferList.get(i) + "\n");

*lineCounter*++;

}

newFileWritter.flush();

newFileWritter.close();

System.***out***.println("deleted from " + *FILENAME* + ": \"" +

messageToBeDeleted + "\"");

}

**private** **static** **void** clearCommandExecution() **throws** IOException {

*newFile* = **new** FileWriter(*FILENAME*);

*lineCounter* = 1;

System.***out***.println("all content deleted from " + *FILENAME*);

}

**private** **static** **void** addCommandExecution(String textInput)

**throws** IOException {

String toBePrinted = *lineCounter* + "." + textInput; // to add the numbering in front of the text

*fileWriter*.write(toBePrinted + "\n");

*fileWriter*.flush();

*lineCounter*++;

System.***out***.println("added to " + *FILENAME* + " : " + "\"" +

textInput.substring(1) + "\""); // to remove the empty space before the textInput

**return**;

}

**private** **static** **void** printWelcomeMessage(String filename) {

String printWelcomeMessage = ***WELCOME\_MESSAGE\_PART\_1*** + filename +

***WELCOME\_MESSAGE\_PART\_2***;

System.***out***.println(printWelcomeMessage);

**return**;

}

**private** **static** **void** fileInitializer(String filename) **throws** IOException {

*FILENAME* = filename;

*newFile* = **new** FileWriter(**new** File(*FILENAME*), **true**);

*fileWriter* = **new** BufferedWriter(*newFile*);

**return**;

}

}

# TestInput.txt

add little brown fox

display

add jumped over the moon

display

delete 2

display

clear

display

exit

# ExpectedOutput.txt

Welcome to TextBuddy. mytextfile.txt is ready for use

added to mytextfile.txt : "little brown fox"

1. little brown fox

added to mytextfile.txt : "jumped over the moon"

1. little brown fox

2. jumped over the moon

deleted from mytextfile.txt: "jumped over the moon"

1. little brown fox

all content deleted from mytextfile.txt

mytextfile.txt is empty