**Mona Aghaaligol**

**CMSC203**

**Assignment 5 Design**

**UML DIAGRAM**

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| --- |
| TwoDimRaggedArrayUtility |
| + getAverage(data: double[][]) : double |
| + getColumnTotal(data: double[][], col: int) : double |
| + getHighestInArray(data: double[][]) : double |
| + getHighestInColumn(data: double[][], col: int) : double |
| + getHighestInColumnIndex(data: double[][], col: int) : int |
| + getHighestInRow(data: double[][], row: int) : double |
| + getHighestInRowIndex(data: double[][], row: int) : int |
| + getLowestInArray(data: double[][]) : double |
| + getLowestInColumn(data: double[][], col: int) : double |
| + getLowestInColumnIndex(dtat: double[][], col: int) : int |
| + getLowestInRow(data: double[][], row: int) : double |
| + getLowestInRowIndex(data: double[][],row: int) : int |
| + getRowTotal(data: double[][], row: int) : double |
| + getTotal(data: double[][]) : double |
| + readFile(file: java.io.File) : double[][] |
| + writeToFile(data: double[][], outputFile: java.io.File) : void |

|  |
| --- |
| HolidayBonus |
| + calculateHolidayBonus(data: double[][], high: double, low: double, other: double) : double[] |
| + calculateTotalHolidayBonus(data: double[][], high: double, low: double, other: double) : double |

When application starts:

A screenshot of a computer

Description automatically generated

File Containing sales data:

A screenshot of a computer

Description automatically generated

Result after selecting Load Sales Data:

A screenshot of a computer

Description automatically generated

Copy File:

A screenshot of a computer

Description automatically generated

File created (TestFile.txt)

A screenshot of a computer

Description automatically generated

Learning Experience:

1. Writing each elements of an array into a file and separate them with space with using following java code:

FileWriter writer = null;

try

{

writer = new FileWriter(outputFile);

for (int i=0; i < data.length; i++)

{

for (int j=0; j < data[i].length; j++)

{

// Write each elements of array into a file

writer.write(Double.*toString*(data[i][j]));

// Separate them from each other with space

writer.write(" ");

}

// Put newline between rows

writer.write("\n");

}

}

1. Create a new array that its size affected from another array size with using following java code

result = new double[line][];

for (int i=0; i<line;i++)

{

// Create a result array that its size affected from s array size

result[i] = new double[s[i].length];

for (int j=0; j<result[i].length; j++)

{

// Convert strings to double and store them in result array

result[i][j] = Double.parseDouble(s[i][j]);

}

}

1. Using

double min = Double.MAX\_VALUE;

to store a maximum value that a double variable can store into itself.