Class: CMSC203 CRN 46519

Program: Assignment #5

Instructor: Professor Eivazi

Summary of Description: Holiday bonuses are calculated based on the store sales, utility classes are used to create a sales report and display holiday bonuses. Testing of these utility classes is done with the JUnit tests and the GUI class.

Integrity Pledge: I pledge that I have completed the programming assignment independently.

I have not copied the code from a student or any source

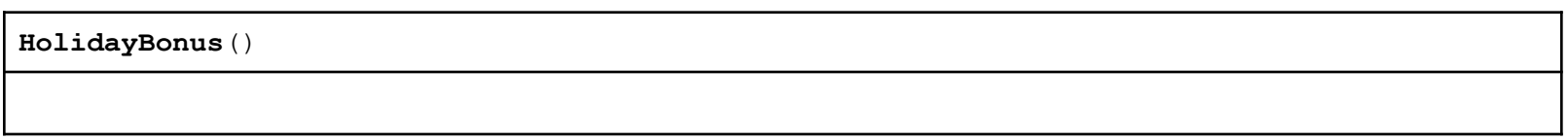
Leon Gabrielian.

Pseudo Code:

- **Utility Class TwoDimRaggedArrayUtility has 16 methods**
- **Utility class – HolidayBonus has 2 methods**
- **twodimragged arrayutility class is a general handler of ragged two dimensional arrays. It is written so that it can read the file with a two dimensional array, write a file back on a disk and perform multiple operations with array elements. This class does not know anything about bonuses and leaders in sales; it works with the array to determine minimums, maximums in rows and columns and return it to driver class.**
- **HolidayBonus acts upon information obtained from TwoDimRaggedArrayUtility based on minimum and maximum values of indexes it assigns appropriate bonuses to best performers, worst**

performers and everyone else in between. This information is returned to driver class.

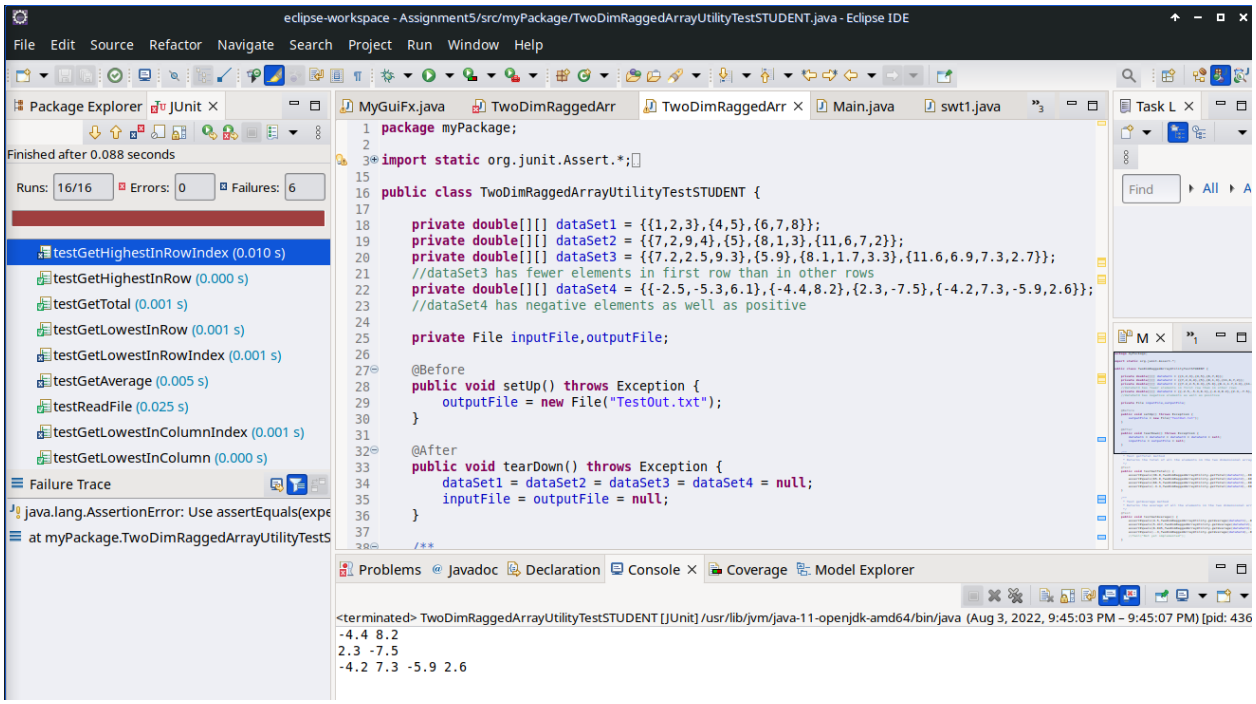
UML:

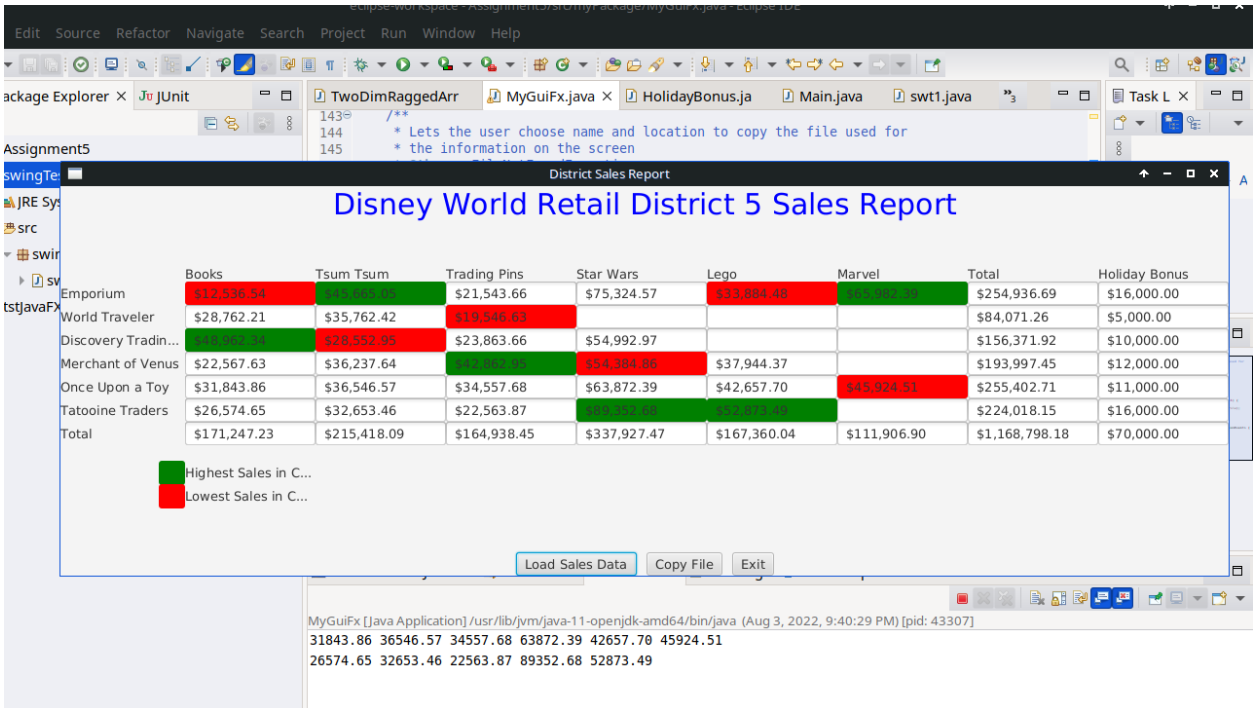


+calculateHolidayBonus(double[][] data, double high, double low, double other):double

+calculateTotalHolidayBonus(double[][] data, double high, double low, double other):double

screenshots





	Books	Tsum Tsum	Trading Pins	Star Wars	Lego	Marvel	Total	Holiday Bonus
Emporium	$12,536.54	$45,695.85	$21,543.66	$75,324.57	$33,884.48	$65,982.59	$254,936.69	$16,000.00
World Traveler	$28,762.21	$35,762.42	$19,546.63				$84,071.26	$5,000.00
Discovery Tradin...	$48,562.34	$28,552.95	$23,863.66	$54,992.97			$156,371.92	$10,000.00
Merchant of Venus	$22,567.63	$36,237.64	$42,662.95	$54,384.86	$37,944.37		$193,997.45	$12,000.00
Once Upon a Toy	$31,843.86	$36,546.57	$34,557.68	$63,872.39	$42,657.70	$45,924.51	$255,402.71	$11,000.00
Tatooine Traders	$26,574.65	$32,653.46	$22,563.87	$89,352.68	$52,873.49		$224,018.15	$16,000.00
Total	$171,247.23	$215,418.09	$164,938.45	$337,927.47	$167,360.04	$111,906.90	$1,168,798.18	$70,000.00

Highest Sales in C...
Lowest Sales in C...

Lessons Learned:

Write about your Learning Experience, highlighting your lessons learned and learning experience from working on this project.

What have you learned?

I learned how to work with ragged arrays and improved my knowledge of operations with files

What did you struggle with?

Ragged arrays are not very convenient for work and it took a lot of time to make sure that the code is working properly

What would you do differently on your next project?

At first I used my own test file but I did not expect that it was too simple for comprehensive testing. I will try to design a better plan.

What parts of this assignment were you successful with, and what parts (if any) were you not successful with?

Writing code was the easiest part and synchronizing with javafx and junit presented several issues.

Provide any additional resources/links/videos you used to while working on this assignment/project.

Pearson revel book.

<Provide answers to the questions listed above>

Check List:

	A	B	C	D	E	F	G	H
2								
3	**Name:**							
4								
5	**TESTING**							
6		Passes Public JUnit tests without runtime exceptions thrown (on console)				20		
7		Passes JUnit student tests				5		
8		Passes private instructor tests				75		
9					**Possible Sub-total:**	100		0
10								
11	**REQUIREMENTS** (Subtracts from Testing total)							
12	**Documentation:**							
13		Javadoc for ALL student generated files were not submitted (entire doc folder)				-3		
14		Documentation within source code is missing or incorrect				-2		
15			Description of what class does is missing					
16			Author's Name, @author, is missing					
17			Methods not commented properly using Javadoc @param, @return					
18			Javadoc matches java files that are submitted					