**Assignment 2 – ITC 313**

**Discussion:**

**Task1** was very straight forward. They were simple, run database commands. I did however, make a database function to reduce code and make it simpler. This worked very well. Through I probably should of parsed the result set into an array and then processed with the calculate Final function instead of wordy print statement with it, as result sets are resource heavy and should be closed an soon as possible.

Some attention of made to insure ITC357 assignment didn’t conflict much and would work on first run, if both were run on same computer. On consecutive runs, the programs work but make SQL errors.

**Task2** was a simple idea wrong complex. I made the program normally and while thinking on how, of if it’s possible to have different key listeners on different threads; I set about making the program load using Executors with different threads and joining them by awaitTermination(Oracle, 2013). This would theoretically faster but surprisingly not, though numerous classes were made, most likely more than necessary. Also some code, namely Executors, was appropriated from the interact website (Java Threads, n.d.).

After numerous web searches and finding that thread can’t have key listener attached to them, I gave listening on different threads up. However, I persisted to have some sort of the multi-threading go on continuously. So I made each key press make an instance make thread of its own to change the label whilst others could. So I suspect what I’ve done is have one thread monitoring for key presses and another thread each action performed. This seemed to go alright besides the massive amount of classes and declaring static a lot.

**How to run:**

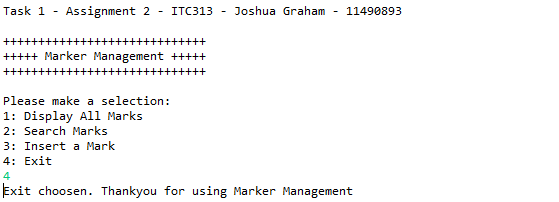
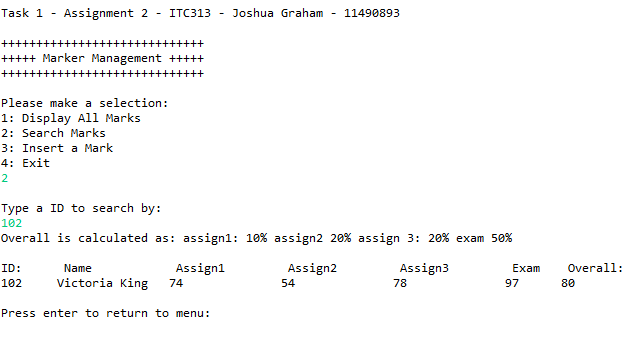
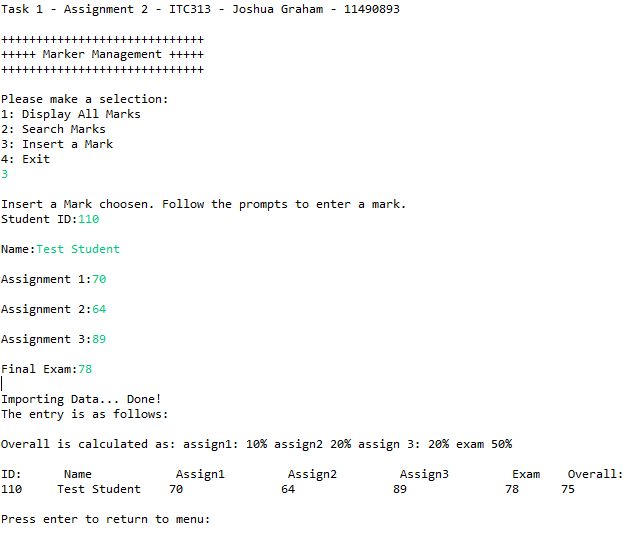
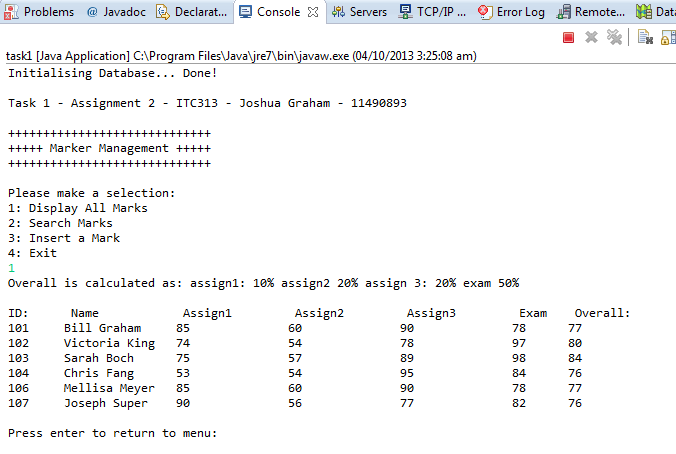
1. Ensure **MySQL** is running using username: **root** password **abc123** (as per subject outline)
2. Open **Eclipse** IDE for Java EE Developers
3. Open the “**file**” menu
4. Click “**Import**”
5. Expand “**General**”
6. Double click “**Existing projects into workspace**”
7. Browse for the **root directory** (the one with .project files etc.)
8. Import “**ITC313\_assign2**”
9. **Expand** and **browse** to the tasks
10. **Double click**
11. Click **Run** (top toolbar) > click R**un**
12. **Enjoy.**

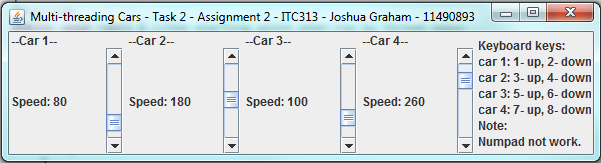
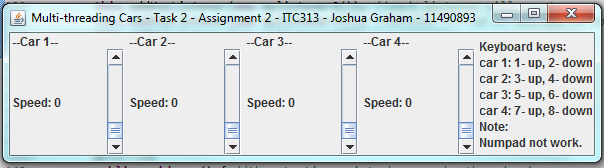
If running **Task 1**, ensure the database driver **mysql-connector-java-5.1.7-bin.jar**  in root folder “**ITC313\_assign2”** (jar file is inside zip, use it if you wish or use compatible one) or is set correctly via the properties of the project in eclipse (or classpath if using command line).

References

*Java Threads, (n.d.) ... Retrieved October 4, 2013, from Charles Sturt University website:* <http://interact.csu.edu.au/access/content/group/ITC313_201360_B_D/topic%20wise%20resources/topic%2011/Lecture1.pdf>

Oracle (2013). Java™ Platform, Standard Edition 7:API Specification. In *Interface ExecutorService. Retrieved from* <http://docs.oracle.com/javase/7/docs/api/java/util/concurrent/ExecutorService.html>

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