

Assignment 1

Program a Haskell script that can be loaded in an interactive session called `mergesort.hs` which will arrange a list of ordered pairs in an arrangement of your choice based on the following rule: comparing first elements against each other, order accordingly, and otherwise if first elements are equal, only then compare second elements.

For example, an input list:

```
[ (2,4), (3,4), (2,3), (1,2) ]
```

would then be sorted into the order:

```
[ (1,2), (2,3), (2,4), (3,4) ]
```

Recall the effort from first lab to overcome issues with syntax. This will get easier, but you must continue to practice in small amounts regularly. Then it is to your advantage to build your code up in smaller increments. The following is a suggestion of how you might approach your implementation and debugging:

- program simpler version of the problem on `[Int]` type
- write and test a separate function for comparing pairs
- combine these efforts into a solution

Rubric

10 marks total

- [2 marks] function to compare pairs
- [5 marks] function to `mergesort`
- [3 marks] function to `merge`

Submit `mergesort.hs` before Oct 6 end of the day.