Quibble, The Queen’s Basic Event Ticket Service

Assignment 4: Back-End Design Document

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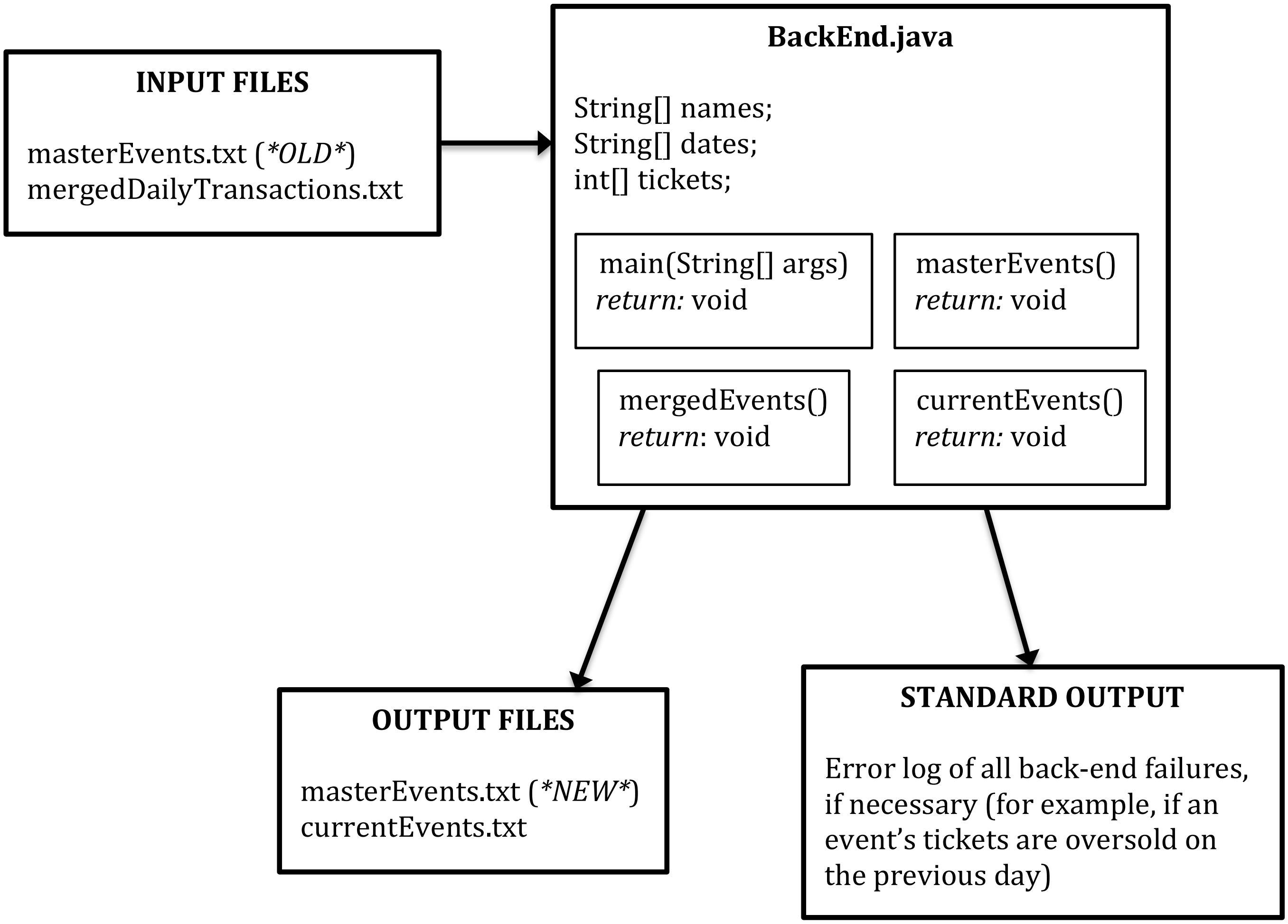
Below is our architecture diagram of Quibble's back-end office, and a description of its components and their associated functionality.



The BackEnd.java class is responsible for taking all of the previous day's event information (in the form of .txt files – see the diagram above), processing it, and preparing it for use by all front end terminals the next day.

The main method in BackEnd.java calls the other three methods in BackEnd.java. It does so in the following order:

1) masterEvents()
2) mergedEvents()
3) currentEvents()

The masterEvents() method reads in the previous day's master events file – masterEvents.txt – and stores all relevant event information in the three global arrays in BackEnd.java (called names, dates, and tickets – see the diagram above).

The mergedEvents() method reads in the mergedDailyTransactions.txt file. It applies changes to the three global arrays, which are populated with information by the actions of the masterEvents() method described above. mergedEvents() modifies these arrays based on the new information in each line of mergedDailyTransactions.txt.

The currentEvents() method is responsible for outputting both of the .txt files. It manipulates the data stored in the three global arrays into the appropriate output format for both masterEvents.txt and currentEvents.txt, as described in the requirements.