

## Hw3

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### Explanation of data structure used

We chose to use a queue structure to handle the processing of the FST. First, we did some text parsing to grab the structure of the FST from a raw text file. We stored this information in a list of a class called TransitionState. The TransitionState class keeps references to the beginning state, ending state, value, output, and weight. We then simultaneously compare each state to the word index. We keep track of which input strings successfully traverse back to the beginning and record the path taken.