Requesting Routing in a Web Server using a Trie explanation

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0.1 Problem Statement

Create a Trie datastructure and use it to make a router to serve up content according to the matched url path.

0.1.1 Design Consideerations

A dictionary eas used to implement the trie as it proved to be quite easy to visulaize and implement tries using a dictionary. However now the dictionary keys are separated and informed by `/`. We use `/` to separate the input path into separate keys to be added to a trie. The last key will contain the content of interest that when requested needs to be served up.

0.1.2 Space and Time Complexity

Due to the dictionary being used the time complexity for accessing, deleting and searching for a trie is `O(n)`.

The space complexity for a trie creation is `O(m*n)`, where `m` is the numer of nodes created and `n` is the average length of keys in the trie.