

The Postal Service is a shipping address validation form entry tool that is able to dynamically update the form as the user types in an address. The form will consist of an address text field, State/Province text field, and a select box for country.

If the user begins by typing for instance “1234 South” into the address form, the tool will offer suggestions for addresses that match the entry, such as “1234 South Pine St, Tacoma WA 98465” or “1234 South Haxby Rd, York UK”. Matches will not show until the user supplies enough information for the number of matches to be reduced to some threshold, say 5. When the user finds the correct address and selects the suggestion, the rest of the form updates with the completed address information. The user can also select their country from the select box prior to typing their address, which will then exclude other countries from the suggested results.

The system will be made up of four(?) components:

Form

Server

Metadata store

Address database

The front-end dynamic form is responsible for taking in input, querying the server using an API, and displaying results.

The server takes API requests and matches the format of the received partial address with the various country code formats that reside in the metadata store. It uses the country match(es) to then query the address database, pushing any results back to the front-end form.

Style/pattern justification:

One of the Web Service API styles (18, 27, or 38). Not sure which is most appropriate.

Request/Response 54 → the form must get a fast response from the server, we will reuse the connection. (does this scale?)

Transaction Script 134 → houses the code that processes the API request and returns appropriate results. Useful because it allows a quick implementation.