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Design of `constructor()` method

- Define a constructor `init` with `self` being the current instance of the class.
- The constructor `init` has two parameters `programmers` and `languages` of the datatype `list`.
- Initialize the instance variables `self.languages` and `self.programmers` with empty dictionaries.
- Define a local variable `index` of the datatype `int`.
- Initialize the variable `index` with zero.
- Use the `for` loop to iterate through the list `programmers` with the iterator variable as `programmer` (of datatype `string`).
 - Assign element at `index` of the list `languages` to the dictionary `self.programmers` with the iterator `programmer` being the key.
 - Use another `for` loop to iterate through the sublist `languages[index]` with `language` (of datatype `string`) as the iterator.
 - Check if the iterator `language` is in the dictionary `self.languages`.
 - If `language` is not present in the dictionary `self.languages` then assign an empty list as value to the dictionary `self.languages` with the key as `language(self.languages[language])`
 - Now add the name of the programmer to the empty list assigned to `self.languages[language]` by typecasting the `string` represented by the iterator `programmer` into a list.
 - Increment the value of the local variable `index` by 1.

Design of `find_languages()` method

- Define a method `find_languages` with two parameters.
- The first parameter being `self` of datatype class instance and `programmer` of datatype `string` representing the programmer.
- Define a variable `list_of_languages`.
- Assign the languages list associated with the key `programmer` in the dictionary `self.programmers` to the variable `list_of_languages`.
- Return `list_of_languages`.

Design of `find_programmers()` method

- Define a method `find_programmers` with two parameters.
- The first parameter being `self` of datatype class instance and `language` of datatype `string` representing the programming language.
- Define a variable `list_of_programmers`.
- Assign the programmers list associated with the key `language` in the dictionary `self.languages` to the variable `list_of_programmers`.
- Return `list_of_programmers`.