Distinct Characters Count (Java Stream)

In this challenge, use the Java Stream, Predicate, and Function to find

the number of distinct characters in the given names which start with a

given prefix. The complete implementation of CharactersCount class is

given. It has the following two fields:

- name describes the name string.
- distinctCharacterCount describes the number of distinct characters.

Create the following two classes:

- Filter class with methodPredicate<String> nameStartingWithPrefix(String prefix) that returns a predicate to check whether a name string starts with the given prefix or not.
- Mapper class with methodFunction<String, CharactersCount> getDistinctCharactersCount() that returns a mapper function to return a CharactersCount class object that correspond to the given name string.
- The locked stub code in the editor validates the correctness of the Filter and Mapper classes implementation.

Constraints

- There exists at least one name for the given prefix.

Input Format For Custom Testing

The only line of input contains the prefix string.

Sample Case 0

Sample Input For Custom Testing

aa

Sample Output

"aaryanna" has 4 distinct characters.

"aayanna" has 3 distinct characters.

Explanation

For the given names ["aaryanna", "aayanna", "airianna", "alassandra", "allanna", "allannah", "allessandra", "allianna", "allyanna", "anastaisa", "anastashia", "anastasia", "annabella", "annabelle",

"annebelle"], "aaryanna" and "aayanna" starts with the prefix "aa".

- "aaryanna" has four distinct characters: 'a', 'n', 'r', and 'y'.
- "aayanna" has four distinct characters: 'a', 'n', and 'y'.