You have breached the adversary database and got its password hashvalue. That is <u>e8258482e63cdf96701f0bc3796018f00ed442b5</u> (given like a String on Sakai)

You know that your adversary is using one of the most 1 million used passwords available here

https://raw.githubusercontent.com/danielmiessler/SecLists/master/Passwords/CommonCredentials/10-million-password-list-top-1000000.txt

You also know that they are using a technique that will make your rainbow tables useless because they add "ism" as a prefix to all user passwords and after that they hash them 2 times using MD5 (1st run) and SHA1 (2nd run).

Write a simple Java application that will brute force the adversary password. The Java solution should contain a single .java file.

Benchmark the solution by printing the amount of milliseconds require to do this. In order to measure the performance you can use

```
long tstart = System.currentTimeMillis();

//do the brute force

long tfinal = System.currentTimeMillis();

System.out.println("Duration is : " + (tfinal-tstart));
```

All the solutions will be cross-checked with MOSS from Stanford. Solutions with a similarity of more than 50% will be canceled.