

Bcrypt

```
String ps = "A1b2C3d4E5";
String ps2 = "A1b2C3d4E6";
String salt = BCrypt.gensalt();

String hashed = BCrypt.hashpw(ps, salt);

$2a$10$LOJOrpAgVDBWF1SZWZAOgO
$2a$10$LOJOrpAgVDBWF1SZWZAOgOG7i1u6H1cATglvS.lUZI/5NDnRAt8z6

if (BCrypt.checkpw(ps, hashed))
    System.out.println("It matches");
else
    System.out.println("It does not match");
```

MD5

10c8558ca305c0ad1e8d376f955dd103

matched

not matched

SHA256

f73e7f89c62e4558d5cc4b8e009c9aac21d64383a5ead7b54a9bc7669f01029f

matched

not matched

cost selection

```
C:\Users\finde\.jdk\temurin-18.0.1\bin\java.exe "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA
Community Edition 2021.1\lib\idea_rt.jar=62099:C:\Program Files\JetBrains\IntelliJ IDEA Community
Edition 2021.1\bin" -Dfile.encoding=UTF-8 -classpath
C:\Users\finde\IdeaProjects\788\out\production\788;C:\Users\finde\.m2\repository\org\mindrot\jbcry
pt\0.4\jbcrypt-0.4.jar tools.BcryptCostSelection
```

4 127.2427

5 7.4234

6 10.3842
7 18.0048
8 33.3851
9 61.1953
10 117.7659
11 218.898
12 522.8219
13 772.5659
14 1401.9081
15 2734.3711
16 5619.4155
17 11379.3213
18 22069.7599
19 43822.437
20 83721.3155
21 163661.0309
22 325505.1739
23 659799.1141
24 1322557.9181
25 5508887.5453

Section finds the secure system and unsecure system the different lines

Bcrypt total lines are 83; clearTextAuthenticaiton total lines are 80.

The line 3,20,25,36,68,73, are essential differences.

The difference between SHAAuthentication andBcryptAuthenticaiton:

SHAAuthentication: 82

3, 20,45, 46, 66, 67,72,