

## Safe Opener

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### Deskripsi Soal :

Can you open this safe? I forgot the key to my safe but this program is supposed to help me with retrieving the lost key. Can you help me unlock my safe? Put the password you recover into the picoCTF flag format like: picoCTF{password}

### Lampiran Soal :

```
import java.io.*;
2  import java.util.*;
3  public class SafeOpener {
4      public static void main(String args[]) throws IOException {
5          BufferedReader keyboard = new BufferedReader(new
InputStreamReader(System.in));
6          Base64.Encoder encoder = Base64.getEncoder();
7          String encodedkey = "";
8          String key = "";
9          int i = 0;
10         boolean isOpen;
11
12
13         while (i < 3) {
14             System.out.print("Enter password for the safe: ");
15             key = keyboard.readLine();
16
17             encodedkey = encoder.encodeToString(key.getBytes());
18             System.out.println(encodedkey);
19
20             isOpen = openSafe(encodedkey);
21             if (!isOpen) {
22                 System.out.println("You have " + (2 - i) + " attempt(s) left");
23                 i++;
24                 continue;
25             }
26             break;
27         }
28     }
29
30     public static boolean openSafe(String password) {
31         String encodedkey = "cGwzYXMzX2wzdF9tM18xbnQwX3RoM19zYWYz";
32
33         if (password.equals(encodedkey)) {
34             System.out.println("Sesame open");
35             return true;
36         }
37         else {
38             System.out.println("Password is incorrect\n");
```

```
39 |         return false;
40 |     }
41 | }
42 | }
```

### Solusi Pengerjaan ;

Jika kita perhatikan secara seksama pada function openSafe pada baris ke 30, kita dapat melihat bagaimana cara kerja program ini. Cara kerja program ini adalah menyamakan password yang telah di enkripsi (line 31), jika password yang kita masukan benar maka akan menampilkan kalimat “sesame open” kemudian mengembalikan nilai true jika salah maka akan menampilkan kalimat “password incorect” dan mengembalikan nilai false.

Pada line 6 kita dapat melihat bahawa program ini menggunakan enkripsi Base 64 (line 6), berarti kita hanya perlu mengencode password pada line 32 yaitu **String encodedkey = "cGwzYXMzX2wzdF9tM18xbnQwX3RoM19zYWYz";** menggunakan encoder online. Maka kita akan mendapat **pl3as3\_l3t\_m3\_1nt0\_th3\_saf3**

### Flag :

picoCTF{pl3as3\_l3t\_m3\_1nt0\_th3\_saf3}