How Reset Your Password Works.

When you forget your password you click on Forgot Your Password but how it really works.

When you click on forgot your password and username is your email id then an email is sent to your email id with a secret code which is unique for every email id registered with the website.

When you open reset your password email you have to click on a link, this links contains a parameter in query string like

http://www.temptemptemp.com/process.jsp?res=123456

or

http://www.temptemptemp.com/process.jsp?res=654321

now this res is unique for every email id.

When you have clicked on forgot your password link this res which is a unique string is generated using an algorithm (which generates unique string for a particular string or which can be a hash algorithm like sha-256).

this unique res string is stored in database table with email id.

when you click on http://www.temptemptemp.com?res=123456 this code res is matched against the email id and if both email id and res appear in the same record, that means user has really forgotten his password and wants to reset it. If both email id and res match user is directed to a new page which allows him to enter new password. when user has entered his new password, this new password is updated in the database where usernames and passwords are stored.

How to generate unique strings for a email id?

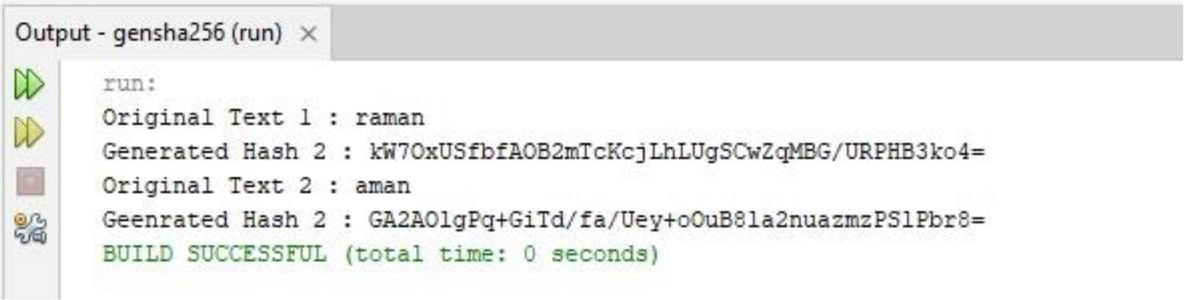
SHA-256 Algorithm can be used for this purpose.

Implementation of SHA-256 Algorithm in Java.

```
import java.nio.charset.StandardCharsets;

import java.security.MessageDigest;

import java.util.Base64;


/**

 *

 * @author raman

 */

public class Gensha256 {


   /**
```

```
     * @param args the command line arguments
     */
    public static void main(String[] args) {
        // TODO code application logic here
        try
        {
        String text1="raman";
        String text2="aman";
        MessageDigest digest = MessageDigest.getInstance("SHA-256");
        byte[] hash1 = digest.digest(text1.getBytes(StandardCharsets.UTF_8));
        String s1 = Base64.getEncoder().encodeToString(hash1);
        System.out.println("Original Text 1 : " + text1);
        System.out.println("Generated Hash 2 : " + s1);
        byte[] hash2 = digest.digest(text2.getBytes(StandardCharsets.UTF_8));
        String s2 = Base64.getEncoder().encodeToString(hash2);
        System.out.println("Original Text 2 : " + text2);
        System.out.println("Geenrated Hash 2 : " + s2);
        }
        catch(Exception e)
        {
            System.out.println(e.toString());
        }
        }


}
```

Output



```
run:
Original Text 1 : raman
Generated Hash 2 : kW7OxUSfbfAOB2mTcKcjLhLUgSCwZqMBG/URPHB3ko4=
Original Text 2 : aman
Geenrated Hash 2 : GA2AOlgPq+GiTd/fa/Uey+oOuB8la2nuazmzPSlPbr8=
BUILD SUCCESSFUL (total time: 0 seconds)
```