**Information Security**

* **Practical 8: Implement SHA 1 Algorithm**

**CODE:**

import java.math.BigInteger;

import java.security.MessageDigest;

import java.security.NoSuchAlgorithmException;

import java.util.Scanner;

public class SHA {

public static String encryptThisString(String input)

{

try {

MessageDigest md = MessageDigest.getInstance("SHA-1");

byte[] messageDigest = md.digest(input.getBytes());

BigInteger no = new BigInteger(1, messageDigest);

String hashtext = no.toString(16);

while (hashtext.length() < 32) {

hashtext = "0" + hashtext;

}

return hashtext;

}

catch (NoSuchAlgorithmException e) {

throw new RuntimeException(e);

}

}

public static void main(String args[]) throws

NoSuchAlgorithmException

{

System.out.println("HashCode Generated by SHA-1 for: ");

String s2 = "Hello World";

System.out.println("Sample : \n" + s2 + " : " + encryptThisString(s2));

Scanner inp = new Scanner(System.in); // Create a Scanner object

System.out.print("\nEnter String : \t");

String s1 = inp.nextLine();

System.out.println("\n" + s1 + " : " + encryptThisString(s1));

}

}

**Output:**

