**Assignment 6**

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**Roll No:** 66

**TY-CS-D**

**Implementation of SHA**

**Code**:-

import java.math.BigInteger;

import java.security.MessageDigest;

import java.security.NoSuchAlgorithmException;

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 s1 = "VIT";

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

        String s2 = "hello world";

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

    }

}

**Output:-**

