**Roll No.- 17103011**

**Program: SHA-512**

**Program:**

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-512");

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("Enter string to Encrypt");

Scanner in = new Scanner(System.in);

String s = in.nextLine();

System.out.println("Encrypted string is " + encryptThisString(s));

}

}

**Output:**

