

**Name: Mohan Ramchandra Patil**

**Reg. No : 19141267**

## **IS Exp8: Implement SHA-1 Algorithm**

### **Code:**

```
import java.math.BigInteger;
import java.security.*;
public class SHA1 {
    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("Name: Mohan Patil \nRoll No.: 19141267"); System.out.println("HashCode
        Generated For Given String: ");
        String s1 = "MohanPatil";
        System.out.println("\n" + s1 + " : " + encryptThisString(s1));
    }
}
```

### **Output:**

```
PS C:\Users\mohan\Desktop\sub codes\is codes\8> javac SHA1.java
PS C:\Users\mohan\Desktop\sub codes\is codes\8> java SHA1
Name: Mohan Patil
Roll No.: 19141267
HashCode Generated For Given String:

MohanPatil : fed4b51cebc9f79368a431256bb8313a124e53ea
```