Experiment No. 8 Hash Functions

```
import java.math.BigInteger;
import java.security.MessageDigest;
import java.security.NoSuchAlgorithmException;
import java.util.Scanner;
public class MD5 {
 public static String getMd5(String input) {
 try {
 // Static getInstance method is called with hashing MD5
 MessageDigest md = MessageDigest.getInstance("MD5");
 // digest() method is called to calculate message digest
 // of an input digest() return array of byte
 byte[] messageDigest = md.digest(input.getBytes());
 // Convert byte array into signum representation
 BigInteger no = new BigInteger(1, messageDigest);
 // Convert message digest into hex value
 String hashtext = no.toString(16);
 while (hashtext.length() < 32) {
 hashtext = "0" + hashtext;
 }
 return hashtext;
 } // For specifying wrong message digest algorithms
 catch (NoSuchAlgorithmException e) {
 throw new RuntimeException(e);
 }
 } // Driver code
 public static void main(String args[]) throws NoSuchAlgorithmException {
 Scanner scanner = new Scanner(System.in);
 System.out.println("Enter the string to generate MD5 hash:");
 String s = scanner.nextLine();
 scanner.close();
```

```
 System.out.println("Your HashCode Generated by MD5 is: " + getMd5(s));
 }
}
```