

MALLA REDDY UNIVERSITY
III Year B.Tech– II Semester

CRYPTOGRAPHY & NETWORK SECURITY LAB
WEEK-9

9. Calculate the message digest of a text using the MD5 algorithm in Java.

Program:

```
import java.math.BigInteger;
import java.security.MessageDigest;
import java.security.NoSuchAlgorithmException;

// Java program to calculate MD5 hash value
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
{
    String s = "Malla Reddy University";
    System.out.println("Your HashCode Generated by MD5 is: " + getMd5(s));
}
```

OUTPUT:

Your HashCode Generated by MD5 is: 41b55ee6e39fc0225602e3bf21df55d8