

# md5

- description : md5
- author :
- email : shlim@repia.com
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# md5

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### (Hash)

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## Class MessageDigest

MessageDigest      SHA-1      SHA-256      Message Digest

**Message Digest**      가      가

(Message digests are secure one-way hash functions that take arbitrary-sized data and output a fixed-length hash value.)

Java      MessageDigest .

- MD5
- SHA-1
- SHA-256

## Class DigestUtils

MessageDigest	가	MessageDigest
MessageDigestAlgorithms	getDigest(String) digest	Digest

## md5Hex

```
public static String md5Hex(String data)
```

Calculates the MD5 digest and returns the value as a 32 character hex string.  
MD% digest, 32 16

```
package com.ocean.crypto.md5;

import org.apache.commons.codec.digest.DigestUtils;

public class MD5HashDemo {

    public static void main(String[] args) {
        // Calculates the MD5 digest for the password text and returns
        // the value as a 32 character hex string
        String password = "s3cretw0rd**";
        String digest = DigestUtils.md5Hex(password);

        // Prints the plain text password, the digest and the Length of the
        digest
        System.out.println("Password = " + password); //
        Password = s3cretw0rd**
        System.out.println("Password Digest = " + digest); //
        Password Digest = 203c603a7330ab3ea032f4b9f140cf95
        System.out.println("Length = " + digest.length()); //
        Length = 32

        // Calculates the MD5 digest for the Long texts.
        String md5 = ""
            The MD5 message-digest algorithm is a formerly \
```

```

widely used cryptographic hash function that produces \
a 128-bit (16-byte) hash value. Specified in RFC 1321, \
MD5 has been utilized in a wide variety of security \
applications, and is also commonly used to check data \
integrity. MD5 was designed by Ron Rivest in 1991 to \
replace an earlier hash function, MD4. An MD5 hash value \
is typically expressed as a hexadecimal number, 32 \
digits long.
""";
String fingerprint = DigestUtils.md2Hex(md5);

// Prints the text, the fingerprint and the Length of the digest /
fingerprint
System.out.println("Text          = " + md5);
// Text          = The MD5 message-digest algorithm is a formerly
widely used cryptographic hash function that produces a 128-bit (16-byte)
hash value.
// Specified in RFC 1321, MD5 has been utilized in a wide variety of
security applications, and is also commonly used to check data integrity.
// MD5 was designed by Ron Rivest in 1991 to replace an earlier hash
function, MD4. An MD5 hash value is typically expressed as a hexadecimal
number, 32 digits long.
System.out.println("Fingerprint = " + fingerprint);           //
Fingerprint = 09ad24fef35b06e6add520b5c6fff1d6
System.out.println("Length      = " + fingerprint.length()); //
Length      = 32
}
}

```

SHA	Secure Hash Algorithm,	
SHA-256	128	256
SHA-384	SHA512	.
SHA-512	256	512

## Ref Site

[Message Digest, FingerPrint -](#)

[Class DigestUtils](#)

[Class MessageDigest](#)

[How do I calculate the MD5 digest of a string?](#)

- Hash( ) Salt( )

## RFC1321 - The MD5 Message\_Digest Algorithm

Class Hashtable<K,V>

MD5 Hashing in Java

Guide to hashCode() in Java

Java equals() hashCode()

Guideto hashCode() in Java

Hashing Algorithm in Java

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Message Digest

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MessageDigest Algorithms

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