

md5

- description : md5
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md5

- (block length):
- () , , 가 .
 - (Hash)
 - (block length) . (: IT
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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?](#)

