EncodingUtil Class

Use the methods in the `EncodingUtil` class to encode and decode URL strings, and convert strings to hexadecimal format.

Namespace

System

Usage

> **Note**
>
> You cannot use the EncodingUtil methods to move documents with non-ASCII characters to Salesforce. You can, however, download a document from Salesforce. To do so, query the ID of the document using the API `query` call, then request it by ID.

EncodingUtil Methods

The following are methods for `EncodingUtil`. All methods are static.

- **base64Decode(inputString)**
  Converts a Base64-encoded String to a Blob representing its normal form.
- **base64Encode(inputBlob)**
  Converts a Blob to an unencoded String representing its normal form.
- **convertFromHex(inputString)**
  Converts the specified hexadecimal (base 16) string to a Blob value and returns this Blob value.
- **convertToHex(inputBlob)**
  Returns a hexadecimal (base 16) representation of the *inputBlob*. This method can be used to compute the client response (for example, HA1 or HA2) for HTTP Digest Authentication (RFC2617).
- **urlDecode(inputString, encodingScheme)**
  Decodes a string in `application/x-www-form-urlencoded` format using a specific encoding scheme, for example “UTF-8.”
- **urlEncode(inputString, encodingScheme)**
  Encodes a string into the `application/x-www-form-urlencoded` format using a specific encoding scheme, for example “UTF-8.”

base64Decode(inputString)

Converts a Base64-encoded String to a Blob representing its normal form.

Signature

```
public static Blob base64Decode(String inputString)
```

Parameters

Type: Blob

base64Encode(inputBlob)

Converts a Blob to an unencoded String representing its normal form.

Signature

```
public static String base64Encode(Blob inputBlob)
```

Parameters

inputBlob

Type: Blob

Return Value

Type: String

convertFromHex(inputString)

Converts the specified hexadecimal (base 16) string to a Blob value and returns this Blob value.

Signature

```
public static Blob convertFromHex(String inputString)
```

Parameters

inputString

Type: String

The hexadecimal string to convert. The string can contain only valid hexadecimal characters (0-9, a-f, A-F) and must have an even number of characters.

Return Value

Type: Blob

Usage

Each byte in the Blob is constructed from two hexadecimal characters in the input string.

The `convertFromHex` method throws the following exceptions.

- `NullPointerException` – the *inputString* is `null`.
- `InvalidParameterValueException` – the *inputString* contains invalid hexadecimal characters or doesn't contain an even number of characters.

Example

```
Blob blobValue = EncodingUtil.convertFromHex('4A4B4C');
System.assertEquals('JKL', blobValue.toString());
```

convertToHex(inputBlob)

Returns a hexadecimal (base 16) representation of the *inputBlob*. This method can be used to compute the client response (for example, HA1 or HA2) for HTTP Digest Authentication (RFC2617).

Signature

Type: Blob

Return Value

Type: String

urlDecode(inputString, encodingScheme)

Decodes a string in `application/x-www-form-urlencoded` format using a specific encoding scheme, for example “UTF-8.”

Signature

```
public static String urlDecode(String inputString, String encodingScheme)
```

Parameters

inputString

Type: String

encodingScheme

Type: String

Return Value

Type: String

Usage

This method uses the supplied encoding scheme to determine which characters are represented by any consecutive sequence of the form `\"%xy\"`. For more information about the format, see The form-urlencoded Media Type in *Hypertext Markup Language - 2.0*.

urlEncode(inputString, encodingScheme)

Encodes a string into the `application/x-www-form-urlencoded` format using a specific encoding scheme, for example “UTF-8.”

Signature

```
public static String urlEncode(String inputString, String encodingScheme)
```

Parameters

inputString

Type: String

encodingScheme

Type: String

Return Value

Type: String

Usage

The rules that apply when the method encodes a string:

- These characters remain the same:
  - Alphanumeric characters A - Z, a - z, and 0 -9.
  - Special characters dot (.), hyphen (-), asterisk (*), and under score (_).

Example

```
String encoded = EncodingUtil.urlEncode(url, 'UTF-8');
```

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