



# HttpRequest Class

Use the `HttpRequest` class to programmatically create HTTP requests like GET, POST, PATCH, PUT, and DELETE.

## Namespace

[System](#)

## Usage

Use the XML classes or JSON classes to parse XML or JSON content in the body of a request created by `HttpRequest`.

## Example

The following example illustrates how you can use an authorization header with a request and handle the response.

```
public class AuthCallout {

    public void basicAuthCallout(){
        HttpRequest req = new HttpRequest();
        req.setEndpoint('http://www.yahoo.com');
        req.setMethod('GET');

        // Specify the required user name and password to access the endpoint
        // As well as the header and header information

        String username = 'myname';
        String password = 'mypwd';

        Blob headerValue = Blob.valueOf(username + ':' + password);
        String authorizationHeader = 'Basic ' +
            EncodingUtil.base64Encode(headerValue);
        req.setHeader('Authorization', authorizationHeader);

        // Create a new http object to send the request object
        // A response object is generated as a result of the request

        Http http = new Http();
        HTTPResponse res = http.send(req);
        System.debug(res.getBody());
    }
}
```

### Note

You can set the endpoint as a named credential URL. A named credential URL contains the scheme `callout:`, the name of the named credential, and an optional path. For example: `callout:My_Named_Credential/some_path`. A named credential specifies the URL of a callout endpoint and its required authentication parameters in one definition. Salesforce manages all authentication for Apex callouts that specify a named credential



## Compression

To compress the data you send, use `setCompressed`.

```
HttpRequest req = new HttpRequest();
req.setEndPoint('my_endpoint');
req.setCompressed(true);
req.setBody('some post body');
```

If a response comes back in compressed format, `getBody` recognizes the format, uncompresses it, and returns the uncompressed value.

- [HttpRequest Constructors](#)
- [HttpRequest Methods](#)

### See Also

- [Apex Developer Guide: JSON Support](#)
- [Apex Developer Guide: XML Support](#)

## HttpRequest Constructors

The following are constructors for `HttpRequest`.

- [HttpRequest\(\)](#)  
Creates a new instance of the `HttpRequest` class.

### HttpRequest()

Creates a new instance of the `HttpRequest` class.

#### Signature

```
public HttpRequest()
```

## HttpRequest Methods

The following are methods for `HttpRequest`. All are instance methods.

- [getBody\(\)](#)  
Retrieves the body of this request.
- [getBodyAsBlob\(\)](#)  
Retrieves the body of this request as a Blob.
- [getBodyDocument\(\)](#)  
Retrieves the body of this request as a DOM document.
- [getCompressed\(\)](#)  
If `true`, the request body is compressed, `false` otherwise.
- [getEndpoint\(\)](#)  
Retrieves the URL for the endpoint of the external server for this request.
- [getHeader\(key\)](#)  
Retrieves the contents of the request header.
- [getMethod\(\)](#)  
Returns the type of method used by `HttpRequest`.



- **`setBodyDocument(document)`**  
Sets the contents of the body for this request. The contents represent a DOM document.
- **`setClientCertificate(clientCert, password)`**  
This method is deprecated. Use `setClientCertificateName` instead.
- **`setClientCertificateName(certDevName)`**  
If the external service requires a client certificate for authentication, set the certificate name.
- **`setCompressed(flag)`**  
If `true`, the data in the body is delivered to the endpoint in the gzip compressed format. If `false`, no compression format is used.
- **`setEndpoint(endpoint)`**  
Specifies the endpoint for this request.
- **`setHeader(key, value)`**  
Sets the contents of the request header.
- **`setMethod(method)`**  
Sets the type of method to be used for the HTTP request.
- **`setTimeout(timeout)`**  
Sets a timeout for the request between 1 and 120,000 milliseconds. The timeout is the maximum time to wait for establishing the HTTP connection. The same timeout is used for waiting for the request to start. When the request is executing, such as retrieving or posting data, the connection is kept alive until the request finishes.
- **`toString()`**  
Returns a string containing the URL for the endpoint of the external server for this request and the method used, for example, `Endpoint=http://YourServer, Method=POST`

## `getBody()`

Retrieves the body of this request.

### Signature

```
public String getBody()
```

### Return Value

Type: [String](#)

## `getBodyAsBlob()`

Retrieves the body of this request as a Blob.

### Signature

```
public Blob getBodyAsBlob()
```

### Return Value

Type: [Blob](#)

## `getBodyDocument()`

Retrieves the body of this request as a DOM document.

### Signature

```
public Dom.Document getBodyDocument()
```

### Return Value



```
String xml = httpRequest.getBody();
Dom.Document domDoc = new Dom.Document(xml);
```

## getCompressed()

If true, the request body is compressed, false otherwise.

### Signature

```
public Boolean getCompressed()
```

### Return Value

Type: [Boolean](#)

## getEndpoint()

Retrieves the URL for the endpoint of the external server for this request.

### Signature

```
public String getEndpoint()
```

### Return Value

Type: [String](#)

## getHeader(key)

Retrieves the contents of the request header.

### Signature

```
public String getHeader(String key)
```

### Parameters

#### *key*

Type: [String](#)

### Return Value

Type: [String](#)

## getMethod()

Returns the type of method used by HttpRequest.

### Signature

```
public String getMethod()
```

### Return Value

Type: [String](#)

### Usage

Examples of return values:



- POST
- PUT
- TRACE

## setBody(body)

Sets the contents of the body for this request.

### Signature

```
public Void setBody(String body)
```

### Parameters

#### *body*

Type: [String](#)

### Return Value

Type: Void

### Usage

Limit: 6 MB for synchronous Apex or 12 MB for asynchronous Apex.

The HTTP request and response sizes count towards the total heap size.

## setBodyAsBlob(body)

Sets the contents of the body for this request using a Blob.

### Signature

```
public Void setBodyAsBlob(Blob body)
```

### Parameters

#### *body*

Type: [Blob](#)

### Return Value

Type: Void

### Usage

Limit: 6 MB for synchronous Apex or 12 MB for asynchronous Apex.

The HTTP request and response sizes count towards the total heap size.

## setBodyDocument(document)

Sets the contents of the body for this request. The contents represent a DOM document.

### Signature

```
public Void setBodyDocument(Dom.Document document)
```

### Parameters

#### *document*



### Usage

Limit: 6 MB for synchronous Apex or 12 MB for asynchronous Apex.

## setClientCertificate(clientCert, password)

This method is deprecated. Use `setClientCertificateName` instead.

### Signature

```
public Void setClientCertificate(String clientCert, String password)
```

### Parameters

#### *clientCert*

Type: [String](#)

#### *password*

Type: [String](#)

### Return Value

Type: Void

### Usage

If the server requires a client certificate for authentication, set the client certificate PKCS12 key store and password.

## setClientCertificateName(certDevName)

If the external service requires a client certificate for authentication, set the certificate name.

### Signature

```
public Void setClientCertificateName(String certDevName)
```

### Parameters

#### *certDevName*

Type: [String](#)

### Return Value

Type: Void

### Usage

See [Using Certificates with HTTP Requests](#).

## setCompressed(flag)

If `true`, the data in the body is delivered to the endpoint in the gzip compressed format. If `false`, no compression format is used.

### Signature

```
public Void setCompressed(Boolean flag)
```

### Parameters



Type: Void

## setEndpoint(endpoint)

Specifies the endpoint for this request.

### Signature

```
public Void setEndpoint(String endpoint)
```

### Parameters

#### *endpoint*

Type: [String](#)

Possible values for the endpoint:

- Endpoint URL

```
https://my_endpoint.example.com/some_path
```

- Named credential URL, which contains the scheme `callout`, the name of the named credential, and, optionally, an appended path

```
callout:My_Named_Credential/some_path
```

### Return Value

Type: Void

### See Also

- [Apex Developer Guide: Named Credentials as Callout Endpoints](#)

## setHeader(key, value)

Sets the contents of the request header.

### Signature

```
public Void setHeader(String key, String value)
```

### Parameters

#### *key*

Type: [String](#)

#### *value*

Type: [String](#)

### Return Value

Type: Void

### Usage

Limit 100 KB.



```
public Void setMethod(String method)
```

#### Parameters

##### *method*

Type: [String](#)

Possible values for the method type include:

- DELETE
- GET
- HEAD
- PATCH
- POST
- PUT
- TRACE

#### Return Value

Type: Void

#### Usage

You can also use this method to set any required options.

## setTimeout(timeout)

Sets a timeout for the request between 1 and 120,000 milliseconds. The timeout is the maximum time to wait for establishing the HTTP connection. The same timeout is used for waiting for the request to start. When the request is executing, such as retrieving or posting data, the connection is kept alive until the request finishes.

#### Signature

```
public Void setTimeout(Integer timeout)
```

#### Parameters

##### *timeout*

Type: [Integer](#)

#### Return Value

Type: Void

## toString()

Returns a string containing the URL for the endpoint of the external server for this request and the method used, for example, Endpoint=http://YourServer, Method=POST

#### Signature

```
public String toString()
```

#### Return Value

Type: [String](#)





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