**Server Object**

The Server object in Asp.NET is an instance of the System.Web.HttpServerUtility class. The HttpServerUtility class provides numerous properties and methods to perform various jobs.

**Properties and Methods of the Server object**

The methods and properties of the HttpServerUtility class are exposed through the intrinsic Server object provided by ASP.NET.

The following table provides a list of the properties:

|  |  |
| --- | --- |
| **Property** | **Description** |
| MachineName | Name of server computer |
| ScriptTimeOut | Gets and sets the request time-out value in seconds. |

The following table provides a list of some important methods:

|  |  |
| --- | --- |
| **Method** | **Description** |
| GetLastError | Returns the previous exception. |
| GetType | Gets the Type of the current instance. |
| HtmlEncode | Changes an ordinary string into a string with legal HTML characters. |
| HtmlDecode | Converts an Html string into an ordinary string. |
| ToString | Returns a String that represents the current Object. |
| Transfer(String) | For the current request, terminates execution of the current page and starts execution of a new page by using the specified URL path of the page. |
| UrlDecode | Converts an URL string into an ordinary string. |
| MapPath | Return the physical path that corresponds to a specified virtual file path on the server. |

**Request Object**

Information or message send by client to server is known as request

It contains all the URL parameters and all other information sent by client

**Properties and Methods of the Request Object**

The following table provides some noteworthy properties of the Request object:

|  |  |
| --- | --- |
| **Property** | **Description** |
| ApplicationPath | Gets the ASP.NET application's virtual application root path on the server. |
| Browser | Gets or sets information about the requesting client's browser capabilities. |
| ContentLength | Specifies the length, in bytes, of content sent by the client. |
| ContentType | Gets or sets the MIME content type of the incoming request. |
| Cookies | Gets a collection of cookies sent by the client. |
| FilePath | Gets the virtual path of the current request. |
| Form | Gets a collection of form variables. |
| HttpMethod | Gets the HTTP data transfer method (such as GET, POST, or HEAD) used by the client. |
| IsSecureConnection | Gets a value indicating whether the HTTP connection uses secure sockets (that is, HTTPS). |
| QueryString | Gets the collection of HTTP query string variables. |
| RequestType | Gets or sets the HTTP data transfer method (GET or POST) used by the client. |
| ServerVariables | Gets a collection of Web server variables. |
| TotalBytes | Gets the number of bytes in the current input stream. |
| Url | Gets information about the URL of the current request. |
| UserHostAddress | Gets the IP host address of the remote client. |
| UserHostName | Gets the DNS name of the remote client. |
| UserLanguages | Gets a sorted string array of client language preferences. |

**Response Object**

Information send by server to client is known as Response.

However, the HttpResponse object still provides some important functionalities, like the cookie feature and the Redirect() method. The Response.Redirect() method allows transferring the user to another page, inside as well as outside the application. It requires a round trip.

**Properties and Methods of the Response Object**

The following table provides some noteworthy properties of the Response object:

|  |  |
| --- | --- |
| **Property** | **Description** |
| ContentEncoding | Gets or sets the HTTP character set of the output stream. |
| ContentType | Gets or sets the HTTP MIME type of the output stream. |
| Cookies | Gets the response cookie collection. |
| Expires | Gets or sets the number of minutes before a page cached on a browser expires. |
| IsClientConnected | Gets a value indicating whether the client is still connected to the server. |

The following table provides a list of some important methods:

|  |  |
| --- | --- |
| **Method** | **Description** |
| BinaryWrite | Writes a string of binary characters to the HTTP output stream. |
| Close | Closes the socket connection to a client. |
| GetType | Gets the Type of the current instance. |
| Redirect(String) | Redirects a request to a new URL and specifies the new URL. |
| SetCookie | Updates an existing cookie in the cookie collection. |
| ToString | Returns a String that represents the current Object. |
| Write() | Writes a character to an HTTP response output stream. |
| WriteFile(String) | Writes the contents of the specified file directly to an HTTP response output stream as a file block. |