

Web Geolocation API

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Locate the User's Position

The HTML Geolocation API is used to get the geographical position of a user.

Since this can compromise privacy, the position is not available unless the user approves it.

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Note

Geolocation is most accurate for devices with GPS, like smartphones.

Browser Support

The Geolocation API is supported in all browsers:

Yes	Yes	Yes	Yes	Yes

Note

The Geolocation API will only work on secure contexts such as HTTPS.

If your site is hosted on a non-secure origin (such as HTTP) the requests to get the users location will no longer function.

Using the Geolocation API

The `getCurrentPosition()` method is used to return the user's position.

The example below returns the latitude and longitude of the user's position:

Example

```
<script>
const x = document.getElementById("demo");
function getLocation() {
  if (navigator.geolocation) {
    navigator.geolocation.getCurrentPosition(showPosition);
  } else {
    x.innerHTML = "Geolocation is not supported by this browser.";
  }
}

function showPosition(position) {
  x.innerHTML = "Latitude: " + position.coords.latitude +
  "<br>Longitude: " + position.coords.longitude;
}
</script>
```

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Example explained:

- Check if Geolocation is supported
- If supported, run the `getCurrentPosition()` method. If not, display a message to the user
- If the `getCurrentPosition()` method is successful, it returns a coordinates object to the function specified in the parameter (`showPosition`)
- The `showPosition()` function outputs the Latitude and Longitude

The example above is a very basic Geolocation script, with no error handling.

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Handling Errors and Rejections

The second parameter of the `getCurrentPosition()` method is used to handle errors. It specifies a function to run if it fails to get the user's location:

Example

```
function showError(error) {
  switch(error.code) {
    case error.PERMISSION_DENIED:
      x.innerHTML = "User denied the request for Geolocation."
      break;
    case error.POSITION_UNAVAILABLE:
      x.innerHTML = "Location information is unavailable."
      break;
    case error.TIMEOUT:
      x.innerHTML = "The request to get user location timed out."
      break;
    case error.UNKNOWN_ERROR:
      x.innerHTML = "An unknown error occurred."
      break;
  }
}
```

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