

HTML5 - MICRODATA

http://www.tutorialspoint.com/html5/html5_microdata.htm

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Microdata is a standardized way to provide additional semantics in your web pages.

Microdata lets you define your own customized elements and start embedding custom properties in your web pages. At a high level, microdata consists of a group of name-value pairs.

The groups are called **items**, and each name-value pair is a **property**. Items and properties are represented by regular elements.

Example

- To create an item, the **itemscope** attribute is used.
- To add a property to an item, the **itemprop** attribute is used on one of the item's descendants.

Here there are two items, each of which has the property "name" –

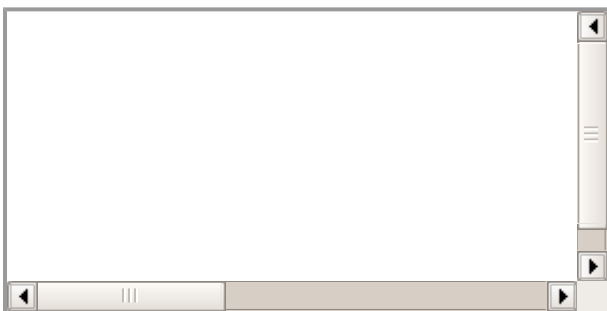
```
<html>
  <body>

    <div itemscope>
      <p>My name is <span itemprop="name">Zara</span>.</p>
    </div>

    <div itemscope>
      <p>My name is <span itemprop="name">Nuha</span>.</p>
    </div>

  </body>
</html>
```

It will produce the following result –



Properties generally have values that are strings but it can have following data types –

Global Attributes

Micro data introduces five global attributes which would be available for any element to use and give context for machines about your data.

Attribute	Description
itemscope	This is used to create an item. The itemscope attribute is a boolean attribute that tells that there is Microdata on this page, and this is where it starts.
itemtype	This attribute is a valid URL which defines the item and provides the context for the properties.
itemid	This attribute is global identifier for the item.

itemprop	This attribute defines a property of the item.
itemref	This attribute gives a list of additional elements to crawl to find the name-value pairs of the item.

Properties Datatypes

Properties generally have values that are strings as mentioned in above example but they can also have values that are URLs. Following example has one property, "image", whose value is a URL –

```
<div itemscope>
  
</div>
```

Properties can also have values that are dates, times, or dates and times. This is achieved using the **time** element and its **datetime** attribute.

```
<html>
  <body>

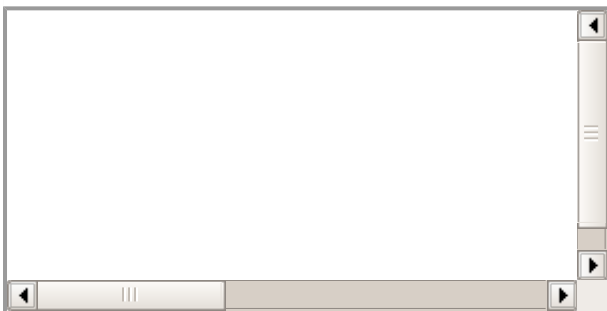
    <div itemscope>
      My birthday is:

      <time itemprop="birthday" datetime="1971-05-08">
        Aug 5th 1971
      </time>

    </div>

  </body>
</html>
```

It will produce the following result –



Properties can also themselves be groups of name-value pairs, by putting the itemscope attribute on the element that declares the property.

Microdata API support

If a browser supports the HTML5 microdata API, there will be a `getItems` function on the global document object. If browser doesn't support microdata, the `getItems` function will be undefined.

```
function supports_microdata_api() {
  return !!document.getItems;
}
```

Modernizr does not yet support checking for the microdata API, so you'll need to use the function like the one listed above.

The HTML5 microdata standard includes both HTML markup *primarilyforsearchengines* and a set of DOM functions *primarilyforbrowsers*.

You can include microdata markup in your web pages, and search engines that don't understand

the microdata attributes will just ignore them. But if you need to access or manipulate microdata through the DOM, you'll need to check whether the browser supports the microdata DOM API.

Defining Microdata Vocabulary

To define microdata vocabulary you need a namespace URL which points to a working web page. For example <http://data-vocabulary.org/Person> can be used as the namespace for a personal microdata vocabulary with the following named properties –

- **name** – Person name as a simple string
- **Photo** – A URL to a picture of the person.
- **URL** – A website belonging to the person.

Using about properties a person microdata could be as follows –

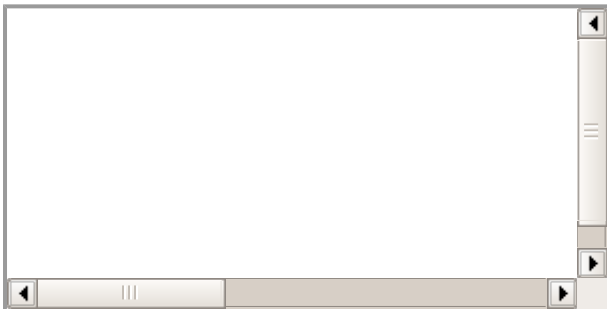
```
<html>
  <body>
    <div itemscope>
      <section itemscope itemtype="http://data-vocabulary.org/Person">
        <h1 itemprop="name">Gopal K Varma</h1>

        <p>
          
        </p>

        <a itemprop="url" href="#">Site</a>
      </section>
    </div>

  </body>
</html>
```

It will produce the following result –



Google supports microdata as part of their Rich Snippets program. When Google's web crawler parses your page and finds microdata properties that conform to the <http://data-vocabulary.org/Person> vocabulary, it parses out those properties and stores them alongside the rest of the page data.

You can test above example using [Rich Snippets Testing Tool](http://www.tutorialspoint.com/html5/microdata.htm) using <http://www.tutorialspoint.com/html5/microdata.htm>

For further development on Microdata you can always refer to [HTML5 Microdata](#).

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