Geo-location Mapping With Google Maps API & PHP

Using a combination of a couple APIs, **PHP** and Curl you can easily incorporate **Google Maps** into your website that fairly accurately identify a visitor's location. Knowing a users location and further being able to map the location has many practical applications. I am going to breakdown the core elements of creating a map just like the one above. I plan on following up soon with more advanced Google Maps examples.

You will need the users' address to begin. If you run a site that collects that information during registration it can be used for mapping otherwise you can get the users city, state and country by grabbing their IP address and then calling one of the available geocoding APIs available.

Grab the users IP address.

$ip = $_SERVER['REMOTE_ADDR'];

Get the users City, State and Country.

$sturl = 'http://api.hostip.info/get_html.php?ip='.$ip;

$ch = curl_init($sturl);

curl_setopt($ch,CURLOPT_RETURNTRANSFER,true);

curl_setopt($ch,CURLOPT_TIMEOUT,10);

$res = curl_exec($ch);

$resinfo = curl_getinfo($ch);

curl_close($ch);

```php
preg_match('/City: ([a-zA-Z].+[a-zA-Z]+)/', $res, $r);

preg_match('/ (([A-Z][A-Z])/', $res, $s);

$city = $r[1];

$country = $s[1];
```

The above API at http://hostip.info can also return the latitude and longitude which is needed to map the location however for the purposes of this demo I am using the Google geo locator API. You will also need a Google Maps API key which can be requested from http://code.google.com/apis/maps/.

Call the Google API to get the latitude and longitude.

```php
$key = "Your Google Maps API Key";

$address = urlencode($city.", ".$country);

$sturl = 'http://maps.google.com/maps/geo?q=' . $address . '&output=csv&key=' . $key;

$ch = curl_init($sturl);

curl_setopt($ch,CURLOPT_RETURNTRANSFER,true);

curl_setopt($ch,CURLOPT_TIMEOUT,10);

$res = curl_exec($ch);

$resinfo = curl_getinfo($ch);

curl_close($ch);

$res = explode(",",$res);
```

$latitude = $res[2];

$longitude = $res[3];

Insert an image tag with the following SRC referencing Google's API.

http://maps.google.com/staticmap?key=' . $key . '&size=506x280&markers=' . $latitude . ',' . $longitude . '&zoom=3

This is just the tip of the iceberg. For more details on the API visit the Google documentation at http://code.google.com/apis/maps/documentation/.

Click here to download the PHP source code.