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//Web Mashup: Display House Address on a Map with Weather details
//Shangeetha Ravichandran Susseelaa --> 1001357420

// Put your GeoNames API key here
var username = "shangeetha";
var request = new XMLHttpRequest();
var map;
var geocoder;
var infowindow;
var marker;

//initMap() which initiates map to a location
function initMap() {
    //initialize map
     map = new google.maps.Map(document.getElementById('map'),{
         center: {lat: 32.75, lng: -97.13},
         zoom: 17
     });
    geocoder = new google.maps.Geocoder;
    infowindow = new google.maps.InfoWindow;
    //Initialize a mouse click event on map which then calls reversegeocode function
    google.maps.event.addListener(map, 'click', function(event) {
    reversegeocode(event.latLng);
  });

}
// Reverse Geocoding
function reversegeocode(location) {
     //call geoname api asynchronously with latitude and longitude
    sendRequest(location.lat(),location.lng());

    //get the latitude and longitude from the mouse click and get the address.
    var latlng = {lat: location.lat(), lng: location.lng()};
    //get the postal address
    geocoder.geocode({'location': latlng}, function(results, status) {
    if (status === google.maps.GeocoderStatus.OK) {
      if (results[0]) {
        map.setZoom(17);
        if(marker != null){
            marker.setMap(null);
        }
        marker = new google.maps.Marker({
         position: latlng,
          map: map

        });
        infowindow.setContent(results[0].formatted_address);
      } else {
        window.alert('No results found');
      }
    } else {
      window.alert('Geocoder failed due to: ' + status);
    }

  });
// end of geocodeLatLng()
}
  //Clears all History Log
   function onCLickButton() {

     document.getElementById("output").innerHTML = "";
}

function displayResult () {

    if (request.readyState == 4) {
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        //extract the temperature,clouds and windspeed
        var xml = request.responseXML.documentElement;
        var temperature = xml.getElementsByTagName("temperature");
        var clouds = xml.getElementsByTagName("clouds");
        var windSpeed = xml.getElementsByTagName("windSpeed");
        var address = infowindow.getContent();
        var weather = "Temperature is:" +temperature[0].innerHTML +" Clouds:" +clouds[0].
        innerHTML + " Windspeed:" +windSpeed[0].innerHTML;
        document.getElementById("output").innerHTML+= "<br/>"+ address+":"+ weather;
    //show the overlay information of weather and location
    infowindow.setContent(address+":"+ weather);
    infowindow.open(map,marker)
    }
}

function sendRequest (lat, lng) {
    //onready state change is whenever the response returns will call function displayResult
    request.onreadystatechange = displayResult;
    console.log(lat);
    //sending a request
    request.open("GET"," http://api.geonames.org/findNearByWeatherXML?lat="+lat+"&lng="+lng+
    "&username="+username);
    //request.withCredentials = "true";
    request.send();
}
```