Geolocation:

Enrich address of single account

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# Functional design

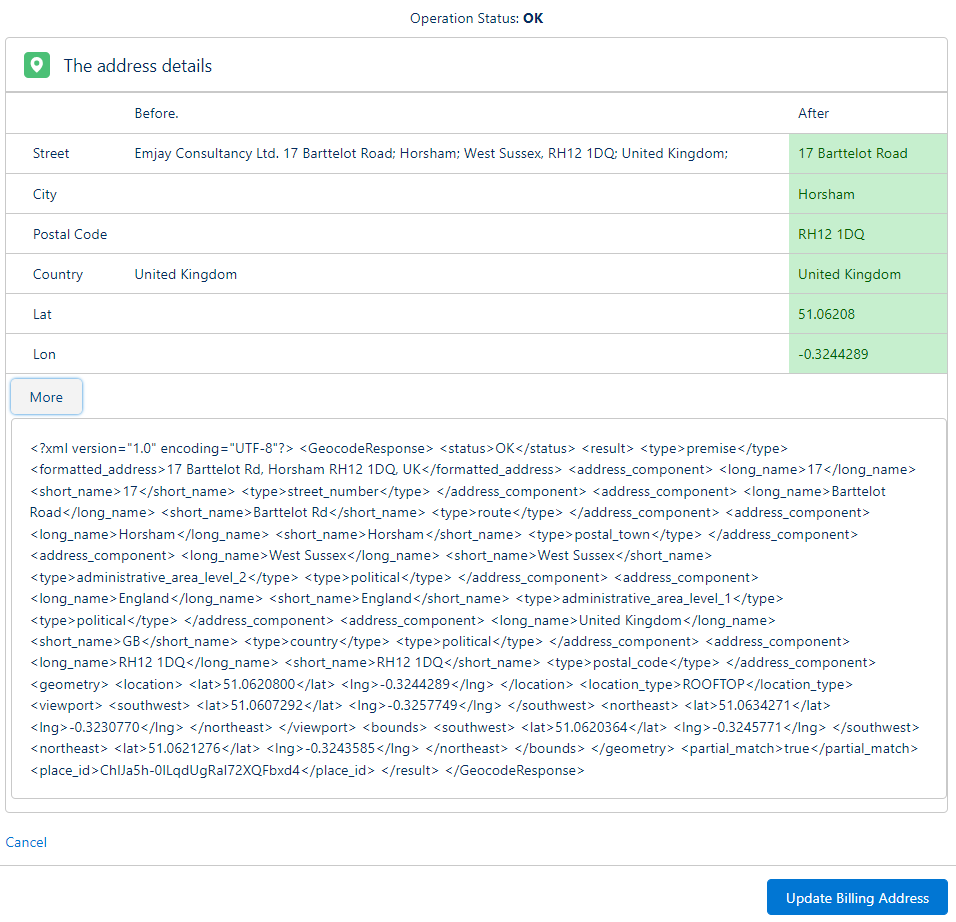
This enhancement provides the button **Enrich** on account page layout.

This button displays the suggestion of how the address can be completed with missing details like postal code. It asks the user for confirmation before the change is made. It uses Google geolocation API.

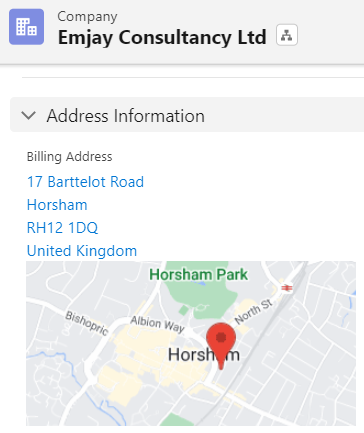
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After button **More** is clicked:

****

After the enrichment the address has rightly filled the fields like **billingCity** and is shown on the map in Salesforce:



# Technical design

## How was it made?

|  |  |
| --- | --- |
| Metadata type | Name |
| WebLink | Account.Enrich |
| Flow | Account\_Enrich |
| Apex class | Enrich |
| Apex class | EnrichTest |
| Static resource | enrichTestResponse |
| LWC | enrichAddressComparision |

The button **Account.Enrich** calls flow **Account\_Enrich**.

The flow calls apex class **Enrich**.

The apex class calls geolocation api.

Flow uses LWC component for fine data visualization.

A picture containing timeline

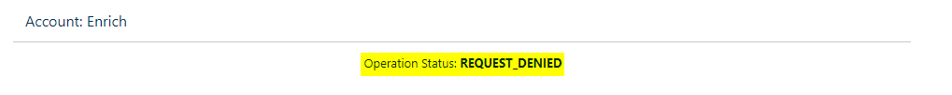
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## Troubleshoting

Mind the operation status.

The value OK means the success, other value means failure.

REQUEST\_DENIED means invalid APIKey token.



### How to run the apex class manually?

Enrich.enrichBillingAddress('0012000000pPkKiAAK','AIzaSyCwn5XYZVBEY9krX9D\_McdlPTAu\_TOmGr4');

### How to call the api manually?

<https://maps.googleapis.com/maps/api/geocode/xml?address=27%20Franklin%20Close,SE27%200PT&key=AIzaSyCwnXYZvVBEY9krX9D_McdlPTAu_TOmGr4>

“xml” can be replaced with “json”.

|  |
| --- |
| <GeocodeResponse>  <status>OK</status>  <result>  <type>street\_address</type>  <formatted\_address>27 Franklin Cl, Norwood, London SE27 0PT, Wielka Brytania</formatted\_address>  <address\_component>  <long\_name>27</long\_name>  <short\_name>27</short\_name>  <type>street\_number</type>  </address\_component>  <address\_component>  <long\_name>Franklin Close</long\_name>  <short\_name>Franklin Cl</short\_name>  <type>route</type>  </address\_component>  <address\_component>  <long\_name>Norwood</long\_name>  <short\_name>Norwood</short\_name>  <type>neighborhood</type>  <type>political</type>  </address\_component>  <address\_component>  <long\_name>London</long\_name>  <short\_name>London</short\_name>  <type>postal\_town</type>  </address\_component>  <address\_component>  <long\_name>Greater London</long\_name>  <short\_name>Greater London</short\_name>  <type>administrative\_area\_level\_2</type>  <type>political</type>  </address\_component>  <address\_component>  <long\_name>England</long\_name>  <short\_name>England</short\_name>  <type>administrative\_area\_level\_1</type>  <type>political</type>  </address\_component>  <address\_component>  <long\_name>Wielka Brytania</long\_name>  <short\_name>GB</short\_name>  <type>country</type>  <type>political</type>  </address\_component>  <address\_component>  <long\_name>SE27 0PT</long\_name>  <short\_name>SE27 0PT</short\_name>  <type>postal\_code</type>  </address\_component>  <geometry>  <location>  <lat>51.4321353</lat>  <lng>-0.1075792</lng>  </location>  <location\_type>ROOFTOP</location\_type>  <viewport>  <southwest>  <lat>51.4308050</lat>  <lng>-0.1088781</lng>  </southwest>  <northeast>  <lat>51.4335030</lat>  <lng>-0.1061801</lng>  </northeast>  </viewport>  </geometry>  <place\_id>ChIJX\_VPaB0EdkgRBcRfwCxsZmk</place\_id>  <plus\_code>  <global\_code>9C3XCVJR+VX</global\_code>  <compound\_code>CVJR+VX Londyn, Wielka Brytania</compound\_code>  </plus\_code>  </result>  </GeocodeResponse> |

See also:

[https://maps.googleapis.com/maps/api/place/autocomplete/json?input= Warszawa,Brzezinska28&location=Warszawa,Brzezinska28&key=AIzaSyCwnXYZvVBEY9krX9D\_McdlPTAu\_TOmGr4](https://maps.googleapis.com/maps/api/place/autocomplete/json?input=%20Warszawa,Brzezinska28&location=Warszawa,Brzezinska28&key=AIzaSyCwnXYZvVBEY9krX9D_McdlPTAu_TOmGr4)

# Installation

1. Install package.xml
2. Get the api key

Go to <https://console.cloud.google.com/>

Create new project

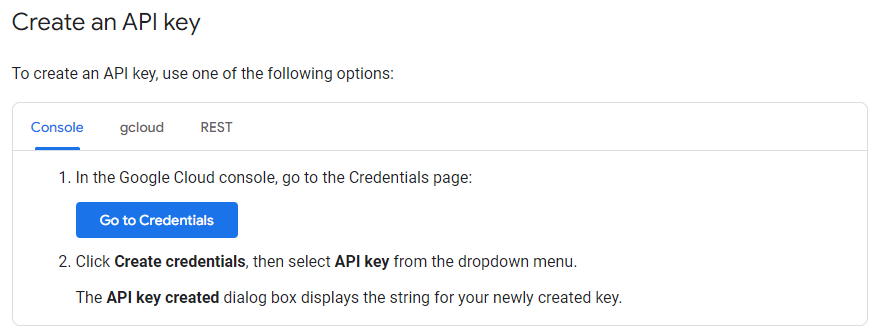
Enable billing

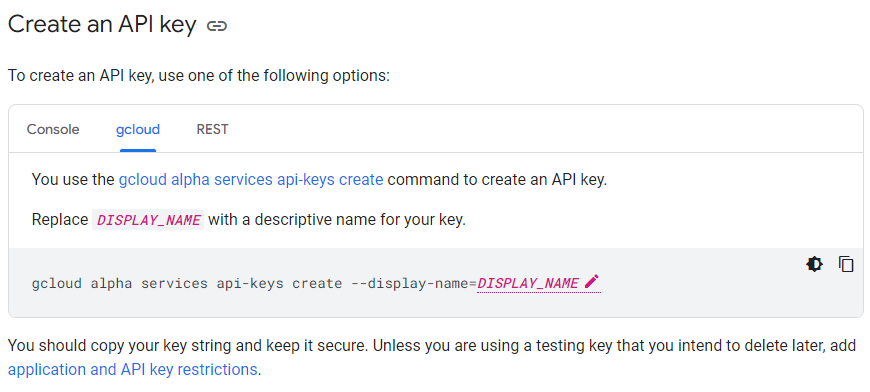
Enable API: Geolocation

The pricing as for today is 5USD for each 1000 requests.

More about API KEY Generation:

<https://cloud.google.com/docs/authentication/api-keys#gcloud>





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1. Edit the Salesforce flow and enter the apikey.

# To do

Prepare java program for batch processing