



Case Study



Icreon

Google Maps Integration

Our client, an Italy based travel agency offering online hotel reservations, wanted to upgrade their existing hotel location map system to provide travellers with an enhanced browsing experience. Based on their requirements, Icreon implemented and integrated Google Maps API with their website enabling travellers to use Google Maps to locate hotels, registered with our client's network, and obtain directions. Our client has tied up with Icreon for all their technology requirements, the first phase of which was the integration of Google Maps with their website.

Customer Profile

Our client, a travel agent and tour operator based out of Italy, offers business and leisure holidays to travellers. Hotels and travel agents, across Europe, can register with them to be a part of their network. Through their website, our client offers their customers online reservations in any of the hotels within their network.

Business Requirements

Our client had a Java based hotel location map system integrated with their website, which they wanted to upgrade in order to provide enhanced map navigation functionalities to travellers using their website to locate and book hotels. They wanted to integrate Google Maps with their website in order to make use of and take advantage of its wide array of features and functionalities and required Google Maps to be implemented in the following areas within the website:

- **Back-office:** In order to enable administrators to locate and set hotel location coordinates on the maps and assign them to individual hotels.
- **Main Website:** To enable travellers to view the all hotels marked on the visible part of the map. As the users navigate on the map, hotels are marked and displayed for the new locations.
- **Individual Hotel websites:** To enable travellers to view an enlarged map for the selected hotel and retrieve directions to the same, from desired locations/destinations.

Integration of Google Maps API

After a detailed study of the Google Maps API, Icreon implemented and integrated Google Maps with our client's travel website.

Google Maps, empowers users with controls to zoom in, zoom out, change pan direction (left, right, up and down), enlarge and reduce map size. The Maps can also be navigated by clicking and dragging the mouse. All maps can be viewed as street maps, satellite imagery or a combination of satellite imagery with street names.

We embedded Google Maps and implemented its functionalities within the following areas of the website:

Back-office

Administrators can use the embedded Google Maps to locate individual hotels and save their latitude and longitude coordinates. If the location coordinates for a hotel have been saved, the map is centered to the hotel; otherwise the map is centered to the default destination i.e. Europe.

Administrators can locate the hotel based on the address; the latitude and longitude are set accordingly. They can set the zoom level at which the map will be displayed on the individual hotel pages thereby enabling them to enhance the visibility and prominence of their hotels.

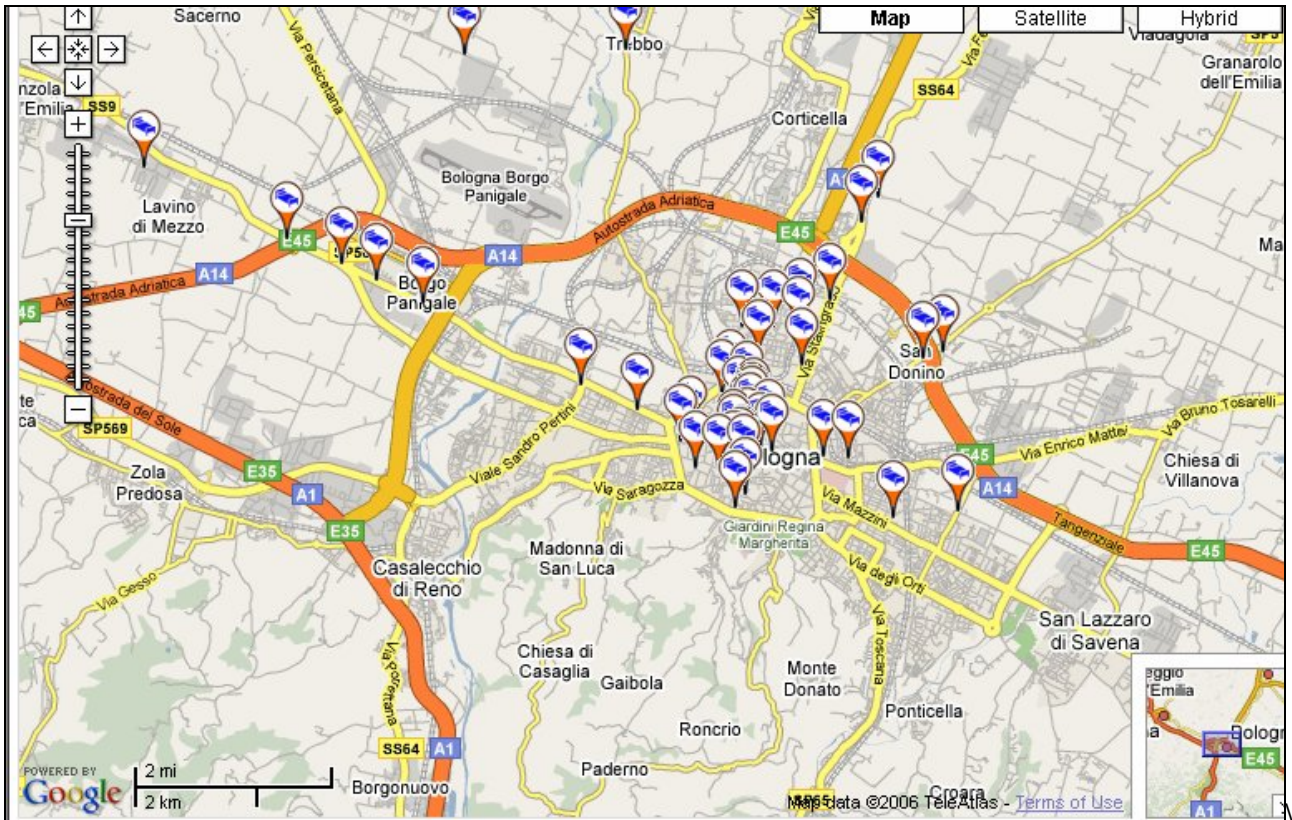
Main Website

Travellers can view a street map of the selected destination marked with all the hotels available. The hotels are marked on the map on the basis of the location coordinates stored, for each hotel, through the back-office application. Travellers can click the hotel icons on the map to view a brief description, image and web links for the hotel.

In order to display the hotel details on the map, we fetch (from the database) and store the relevant information, of only those hotels that are to be displayed in the visible parts of the map thereby enabling faster map rendering and less visual clutter, in an XML file. As and when the user navigates on the map, fresh hotel data is fetched and stored in the XML. This file is passed to the Google Maps API where it is interpreted and displayed on the map.

Hotel website

Travellers can view the location map, displayed on the basis of location coordinates, for the selected hotel. The map is displayed at the pre-defined zoom level (set by the administrator) and is centered to the hotel location. Travellers can get route directions from desired destinations to the hotel. The route is displayed as a poly line on the map. Provisions to reverse the directions have also been provided.



Map displaying all hotels within a destination

Technologies used in developing this application are:



Summary

With the integration of Google Maps, Icreon enabled our client to provide travellers with extensive and detailed hotel location maps. Google Maps implemented at the back-end enables administrators assign location maps to hotels and at the front end enables travellers to locate and get step by step directions to the same.