Synopsis
Suburb and Surrounding Rings Widget

Thank you for allowing me time to consider the specification for the above task. I spent much of yesterday and last night (this morning) reviewing the requirements.

"A web widget to allow the selection and map view of initial suburbs and three (3) optional "rings" expanding outwards from the suburb.
Purpose: This widget will be embedded in web apps and sales tools running on both desktops and tablets (iPads) to assist clients in visualising the area of coverage available to them when selecting a listing type."

The Trivial Stuff

- I down loaded and ran an ElasticSearch server on a Ubuntu development machine. Using the elasticsearch.js clients for both angular and jQuery running queries against the server was straightforward.
- Since AJaX and Autocomplete are fairly old now, and we have both implemented forms with various techniques to accomplish these types of outcomes, the form UI seems easy to implement. Re-using existing code would seem to be the most cost effective method. You site demonstrates this quite well at http://www.localsearch.com.au/North-Rockhampton,QLD/Computers%E2%80%94Network%20%26%20System%20Consultants
- Given the data "tables" made available as described in the specification, the modification of one of your existing forms would seem to be a simple task.

Non-Trivial Stuff

The outlining/shading of one or more regions on a web presented map. I came across this requirement during 2005 when preparing demographic analysis tools for the Australian Bureau of Statistics. As the Google maps API was only released in 2005, it did not contain the sophistication required by the ABS to present boundary data. The ABS Java/Applications team used a product named Tablue to present the suburb maps. The PDF files are contained in the attached compressed file. This was a non trivial task.

After being assigned to look at this requirement again, a decade later, by you guys, I spent some time researching the GOOGLE Maps API as presented in 2015. Suprisingly, the boundary vector data is still not made available by Google.

After a few hours research (please correct me if I am wrong) I came to the conclusion that the way to accomplish your visual requirements was to use a strategy similar to that used in 2005/6, however, this time using Google maps as the output meduim.

The ABS publishes in 5 year intervals a set of Postal Area boundaries that are compiled using outlines of Census Collection Districts. They approximate official Australia Post postcode coverage areas at the time of publishing. These boundaries are available for free download in a range of popular GIS data formats. The data sets are included in the attached compressed file.

The most current method used by others trying to accomplish the same function such as
http://www.aus-emaps.com/web_widgets.html
Is to use the ABS data, convert the data into a format that the Google API can use, the draw the suburb(s) in using various Google API overlay/Polygon functions.

Although somewhat easier than during 2005, this is still a non trivial task.

Methodology

I would suggest that the best method of accomplishing your business requirements would be to extend the first of your data sets *"Suburbs By name, postcode and state"* to include the boundary polygon vectors, then use this data to draw the overlays onto Google maps using the standard APIs.

The people here
http://www.aus-emaps.com/postcode_finder.php

are using a very similar approach.

Effort

I am a little uneasy about quoting a definitive effort in accomplishing this specification without more research and development. It SHOULD NOT be all that difficult, however, a decade after the ABS first approached this requirement, no-one seems to have implemented it fully. If pushed, I would say somewhere in the order of six – nine person weeks full time. Cost? We should probably discuss a method of working together on this project. However, to foster a quasi employment relationship with your organisation if asked to carry this out as a contractor I would be willing to lower my rates from a standard of $65 ph down to $40 ph.

Conclusion

- Would I like to implement it? My word! Much more interesting than the run of the mill contracting chores.

- Do I have the skill sets to accomplish this task? I believe I do.

My Questions

Are all rather boring and can probably wait until we decide if we want to implement our "Widget".

Regards,
Mark Addinall.