# E-TourGuide


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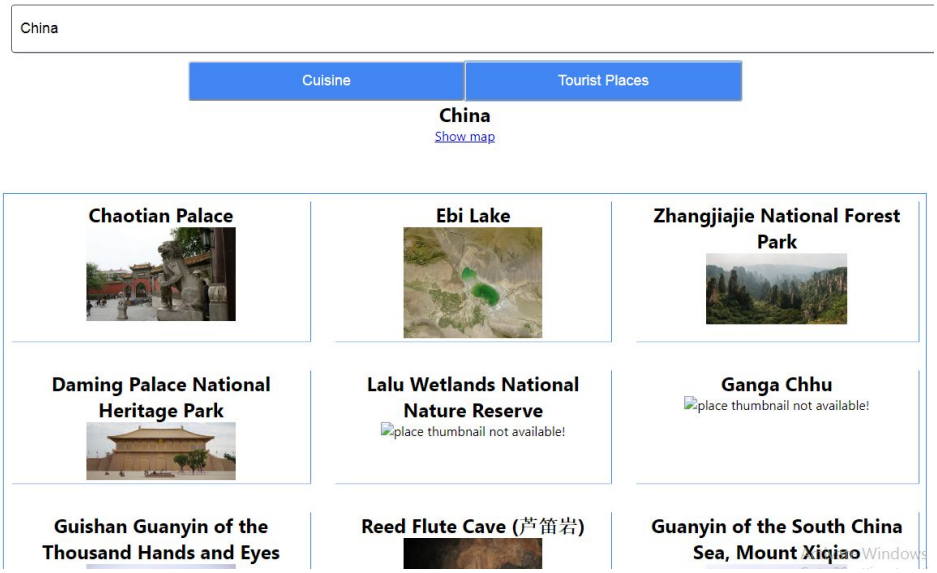
**Objective -**

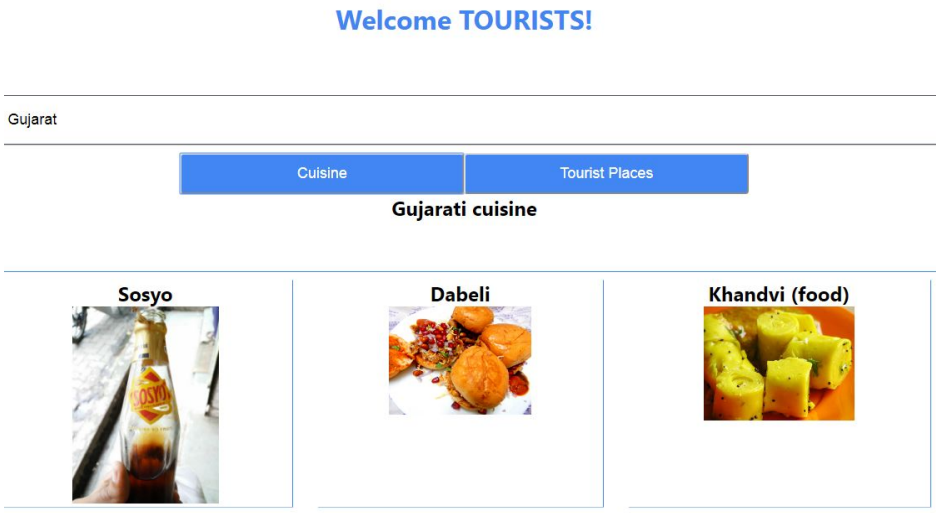
Nowadays we are pushing for speed. Semantic web offers an excellent choice to satisfy this appetite. The app is designed to make SPARQL queries entirely from the client-side. Using Semantic Web over third-party APIs prevents the maintenance overhead associated. Apart from offering the advantage of less maintenance, it provides a better and ever-growing quantity of data. Through our app, we show the potential that semantic web hold by demonstrating a tourism guide.

**Features -**

- Various locations inside and outside of India.

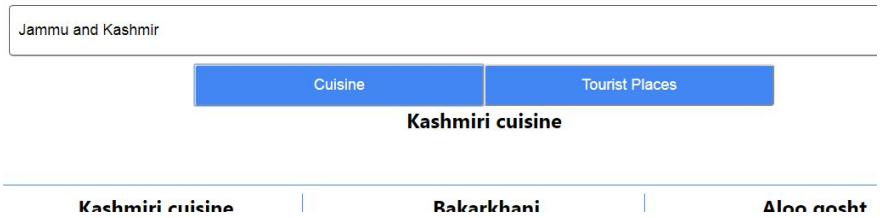



- Support for Cuisines, Historic Sites, and Tourist attractions, etc.



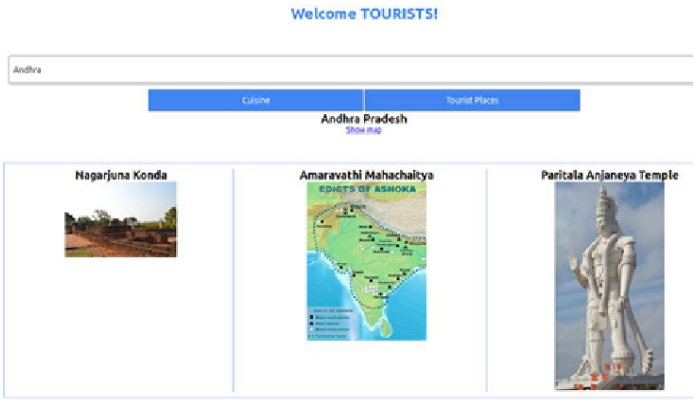
- Uses multiple datasets.
    - DBpedia
    - WikiData

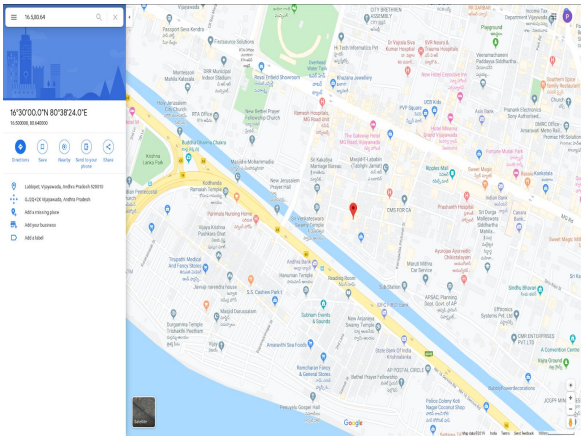
  The data linked from the above two databases to MealDB & Wikipedia has also been used for images of cuisines, locations and historical places.
- Sterling input query searching procedure covering for the absence of data linking.
    - **Challenge** - Input search query such must map to the correct page even in the absence of the linking of the data on Cuisines and locations with the corresponding state and country. Example : “Odisha” -> “Odia_cuisine”
    - **Approach** - Apply heuristics of string matching combined with the Sørensen-Dice coefficient leading to superior results when compared to Levenshtein distance.
    - “Jammu and Kashmir“-> Kashmiri_Cuisine”




    - “Odisha“-> Odia_Cuisine”


- Retrieving the coordinates of the locations and linking to google maps location.



- SPARQL Query generation and querying on the client-side for faster retrieval.
- Retrieves and unfurls the linked images from MealDB and Wikipedia for better UI.
- Easy to run, setup and deploy.
    - Deployed on Heroku - https://calm-waters-88173.herokuapp.com/

**Implementation -**

We first queried for a list of all the city/state for which the various famous cuisine and famous tourist spots are present and we stored them as JSON data. This JSON data contains the URI for the city/state and its label. Now whenever a tourist writes the name of a place for a famous cuisine or tourist place, it looks for the best matching city/state and shows them dynamically to the user. And when the user passes the query it takes the best matching city/state and runs the SPARQL query corresponding to that place and scrap for the cuisine/tourist place. This scraped data contain an image URL and place/cuisine label. If the corresponding place contains the latitude and longitude then it can be used to show its location on google map.

**Future Scope**

- Intelligently suggesting places, based on the user's location and other past information.
- Better UI and design.
- Supporting for more places, for example, USA state-wise and megacities of the world.

**Links**

- Slides:docs.google.com/presentation/d/1YqeeA6_uRd9zjd89_YaK0w2SV4VtyWqgMxPF6QC6z7M
- Live Project: https://calm-waters-88173.herokuapp.com/
- Codebase: https://github.com/rohitsanjay/KMSTProject