

Infinite Analytics: Hackathon

Follow the social handles of Infinite Analytics, where hints for the hackathons will be released on a daily basis! There will also be bonus evaluation points to be won for additional quickfire quizzes which will be held on Wednesday & Friday on LinkedIn and Instagram. Answers for the quizzes will need to be sent to <https://forms.gle/6m8EiFgo3dJF2xPRA>

LinkedIn: <https://www.linkedin.com/company/infinite-analytics/>

Twitter: <https://twitter.com/infanatweets>

Facebook: <https://www.facebook.com/infiniteanalytics>

Instagram ID: @infinite_analytics

Website: <https://infiniteanalytics.com/>

Company Overview:

Who are we?

Infinite Analytics is a Boston headquartered AI startup that specializes in using online and offline consumer data to help our clients understand their consumers and drive up their customer acquisitions effectively. It works with companies across India, US and the Middle East

Our team of engineers come from MIT, Stanford and IITs, and we're backed by stalwarts such as Sir Tim Berners-Lee (Inventor of the World Wide Web) and Ratan Tata (Chairman Emeritus of the Tata Group). With an exceptional team and exemplary backers, we've built a reputation over the past 10 years to help businesses across verticals such as Automobile, FMCG, Retail and Banking including multiple Fortune 500s to resonate with new consumers and nurture their existing consumer base.

What do we do?

Sherlock.AI analyzes over **350 million** anonymized consumers everyday across 40+ datasets. Our machine language algorithms provide a deeper understanding of online and offline consumer behavior to acquire consumers efficiently. Leveraging our expertise working with global multinationals, we developed Sherlock.AI, our premier data analytics platform with a single mission: **to democratize consumer behavior insights** and make data-driven marketing accessible to all businesses irrespective of their size.

From data exploration to digital marketing campaign management, our platform will provide the tools and insights you need to identify and resonate with your target audience. Best of all? We've designed this platform so anyone can do it, "not just data analysts!"

Infinite Analytics: Hackathon

Take a look at how Sherlock AI makes deductions ELEMENTARY!

<https://youtu.be/z8xlu5-9DzU>

Problem Statements

Broadly, we have 2 problem statements for you. You may choose to work on any one of them as per your wish i.e. you can choose between either of the two problem statements

Option 1: Segmentation of places -

You will be given POI (Point of Interest) data from OSM (openstreetmaps). These POIs will include locations ranging from grocery stores, shopping malls to car dealerships within the city. You may also enrich your POI (point of interest, meaning, what type of place- showroom/ building/ outlet/ shop etc.) data using any location data available on the web (that you can extract/scrape). Your goal is to divide the city geographically into various blocks/localities. Next you are supposed to create clusters of similar localities and characterize each cluster so that these clusters are human interpretable. Note that we will be evaluating your solution based on actionable insights you are able to draw from EDA (exploratory data analysis) and the clusters. As a side note feel free to use the IFA data into your solution if it seems useful. Examples of insights are given below

- Cluster 1 (name should be given to each cluster) has a high range of rates for commercial spaces (~Rs. 40000/per sqft) and also has presence of premium cafes and pubs. Overall the correlation between commercial rates and number of pubs/premium cafes in Mumbai is 0.8.
- Cluster 5 has a high volume of grocery stores and saloons indicating the basic characteristics of residential areas.

The schema of OSM data is given below:

1. source: source from where the data was collected
2. poi_code: unique identifier of the POI
3. name: name of the POI
4. poi_type: type of POI (e.g car dealership, shopping mall, etc)
5. lat: latitude of the POI
6. long: longitude of the POI
7. address: address of POI
8. city: city of POI
9. state: state of POI
10. country: country of POI
11. pin_code: pincode of POI
12. brand: brand information of POI

Infinite Analytics: Hackathon

Expected Output: Dashboard & Code in the form of Jupyter Notebook. **Additionally**, insights and graphical format of any data insights or correlation can be presented as PPT's as well