IITB-ISRO-AICTE Mapathon

Team Name:	Team Tesseract
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Problem:	State-wise Health Care Indicator Maps.

Introduction:

We used the QGIS 3.16.1 (Hannover) desktop version to create the maps. The topic we have chosen is 'state-wise healthcare indicator maps'. We obtained the required health data from the official National Health Profile 2019 released by the Central Bureau of Health Intelligence (CBHI) under Ministry of Health and Family Welfare. The excel format of the data was available in https://data.gov.in/. The data was comprehensive and included multiple dimensions of health related data.

Children and their health play an important role in the development of a country since they form the future of a country. Hence we chose Child Health as a sub-theme and created maps related to that theme. We used data that are related to disease and nutritional health status of children in India from the above mentioned sources.

Steps in creation of the maps and challenges:

1. Creating the maps required vector (shp) files. We downloaded the India_State_Boundary.shp file accessible through the moodle resources (https://static.fossee.in/mapathon/Mapathon2020_Data/). The attribute table of the vector file consisted of border length and area of each state.
2. Since state name was not included as an attribute, we found it challenging to include it. We had to manually find the state names using length and area data. Then, we added a primary key field called 'state number' using field calculator feature.
3. We added the data downloaded from data.gov.in website to a csv file and added that as a delimited text layer with 'no geometry'.
4. Then we used 'join' using the primary key we created to join the delimited text layer with the vector layer. Using this final attribute table, we created all the maps.
5. We used the 'graduated' feature to classify the data into required number of classes and color the map based on the class into which each state is classified.
6. Finally, we generated the report using 'Print layout' feature.

Scope and Utilization of the maps:

- The maps we created will give a comprehensive visualization of Child Health data obtained in 2019.
- Our maps will indicate immunization, Vitamin A supplementation along with prevalence of diseases such as Anaemia among the children.
- The maps provide visualizations which will be useful to understand the trends in child health indicators.
- Visualizations will also be helpful for policy makers and other stake holders in the health department to frame policies in future.