How India Lives?

Visualizing the 2011 Census of India

Nihal Haneef   16CO128
Gurupungav Narayanan   16CO114

Aim

To provide an interactive and readable interface to access the 2011 Census Data.

Objectives

- To view the data and progress in terms of mortality rate, literacy rate etc. for any state, city or district in India based on the Census data.
- To visualize the country's progress in any certain kind of attribute via map visualization, tables, plots etc.
- To compare the progress and variation in various attribute values amongst two different states, districts or cities.

Description

The entire purpose of a Census is defeated if useful information cannot be garnered from it. The current Indian Census website (http://www.censusindia.gov.in) does a very mediocre job in visualizing the census data. This project proposes to effectively visualize the census data.

This project would involve scraping the 2011 Indian Census Website to build a dataset. This dataset needs to be normalized to reduce redundant data and to ensure efficient memory utilization. The new normalized dataset would then be hosted on a **mySQL** server, which would serve as the database for the **Node.JS** backend. The front end is to be built using **React.JS**, which would allow for a responsive and interactive webpage for visualizing the data.

The India Census data comprises of:
1. **Primary Census Abstract (PCA)** holds all the population statistics for all states and cities. It is further classified into Urban and Rural Information.
   The **PCA** consists of **93 attributes** which includes the State Code, District Code, Name, Level, Total Persons, Male Persons, Female Persons, Literate Persons etc.
   The full list of attributes is available here
   https://github.com/gurupunskill/india-census-2011/blob/master/pca-colnames.csv
2. **House Listing Primary Census Abstract (HLPCA)** holds the house listing statistics for all states and cities. It is further classified into Urban and Rural Information.
   The **HLPCA** consists of **145 attributes** which includes information including Number of Households, Availability of Assets, Material used to build Households.etc.
   The full list of attributes is available here
   https://github.com/gurupunskill/india-census-2011/blob/master/hlpca-colnames.csv