**Task-1 Google Fusion Table**

1. Login to Google drive
2. First time: mydrive – connect more apps -> search for fusion tables and connect the app
3. Explain about the data set
4. New – Google fusion tables -> From this computer
5. Upload the CSV file from local machine - London Ward Geo Data.csv
6. 626 rows, 68 columns
7. Interesting columns
   1. Population
   2. Population Density
   3. Crime rate
   4. Robbery rate
   5. Drugs rate
   6. Cars per household
   7. Employment rate
8. Filter rows
9. Create map and show changing the various attributes of Map
   1. Feature maps – publishable
   2. Heat maps – cannot be published
10. Create chart and show various options
    1. Create a pie chart and show the top-5 wards with highest crime rate
    2. Create a pie chart of 5 wards with lowest crime rate
    3. Create an html file and embed the URL and show how quickly we can develop our website with charts from Google fusion table!
    4. Categorical chart (looks like line chart)
11. Create View
12. Merge tables –No suitable dataset! ?
13. Publish the data and maps
14. Create new fusion table based on public data - Food stamp data
15. Create new Google sheet from unemployment rate from bureau of labor statistics
16. Merge the tables together on state column.
17. Visualize the new merged table in map.

**Task-2 Mapbox Studio**

1. Overview of Mapbox studio
   1. Create custom maps with CartoCSS
2. Download Mapbox Studio
3. Start Mapbox studio
   1. Projects
   2. New project
   3. Basic style
   4. Center map on New York and set zoom to 17
   5. Inspect the vector source – there are many items to style in this area !
   6. Add new CartoCSS tab to the map
   7. Style the buildings (commands saved in cartocss.css file)
   8. Save the map to see the changes – play with some other colors
   9. Add depth to buildings – copy next section from cartocss.css file
   10. Style the parks
   11. Label roads
   12. Adding interactivity
       1. Adding interactivity to POI labels on the map
       2. Quit Mapbox studio and go to project folder and open project.yml file
       3. Remove the single quotes to the right of interactivity\_layer and make it look like interactivity\_layer: poi\_label
       4. Now remove the single quotes against the right of template and add code from cartocss.css. Restart application and browse the project, now interaction is available on POI\_labels
4. Uploading created map to mapboxstudio
   1. Go to settings and upload. Only one map style can be uploaded for free users
5. Now the style is deployed on the Mapbox site, and Mapbox Developer APIs can be used to integrate the map to apps or websites
   1. Mapbox.js – JavaScript library
   2. iOS/Android/
6. Modify the simplemap.html with latest map’s id and load it in Firefox! I published my map   
     
     
   **Task-3 CartoDB**
7. Introduction to CartoDB
8. CartoDB Editor –
   1. Drag and drop geospatial data
   2. Create a customized map
   3. Publish map as public url
   4. Password protected visualizations for collaborations
   5. Embeddable maps
   6. API endpoints to build integrate maps to websites
9. CartoDB Platform
   1. CartoDB Platform wraps together database with Map and SQL APIs that let you interact with data remotely
   2. Query, and update your CartoDB maps, data
10. Section-1 Adding and editing Geometries
    1. Start from scratch
    2. Points, add some information associated with points. This can be viewed when we click on the points
    3. Linestrings -
    4. Polygons –
    5. Add custom base maps to your account – import map from Mapbox Studio
       1. Optional - Create new map from data set Melbourne streets
       2. Change base map from the map created in Mapbox
       3. Show how to change the base map to NASA day/ night
    6. Build a fairly advanced map with Harvard Election Data Archive – Presidential election 2008
    7. Show the Harvard site explain then, drag and drop the downloaded file from Harvard – NH\_Shapefile.zip
       1. Colum p\_08 is democrat’s vote share
    8. Show the option of editing the CartoCSS file and changing the attributes
11. Show how to import data from external sources such as Google drive or Dropbox
    1. Show how to take the table from Google drive folder
    2. Import file us\_cities\_lat\_long.csv
    3. Do some SQL queries
    4. SELECT \* FROM us\_cities\_lat\_long where region='WY'
    5. SELECT \* FROM us\_cities\_lat\_long where region='AL'
12. Data filters, populated places data
    1. Filter based on pop\_max column
    2. Add one more filter based on adm0cap, whether capital city or not
13. Create first map with CartoDB.js
    1. Do this demo with populated places data
    2. Go to cartodbjs folder
    3. Commands are available in cartodbjs.txt
    4. Open tutorial.html and explain the contents
    5. Load the file into Firefox and show how it looks like
    6. Now add layerURL
    7. Now create a layer
    8. Load the map in Firefox and show it
    9. Add client side SQL statements and custom CartoCSS style elements
    10. Load the custom map and show how it looks like.
14. Done.