Idea title: Distribution of groundwater intensive industries

Technology Bucket: Software – Web App development

Ministry Name: Min. of Water Resources

Team Name: hiddenforprivacy

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Category: Software

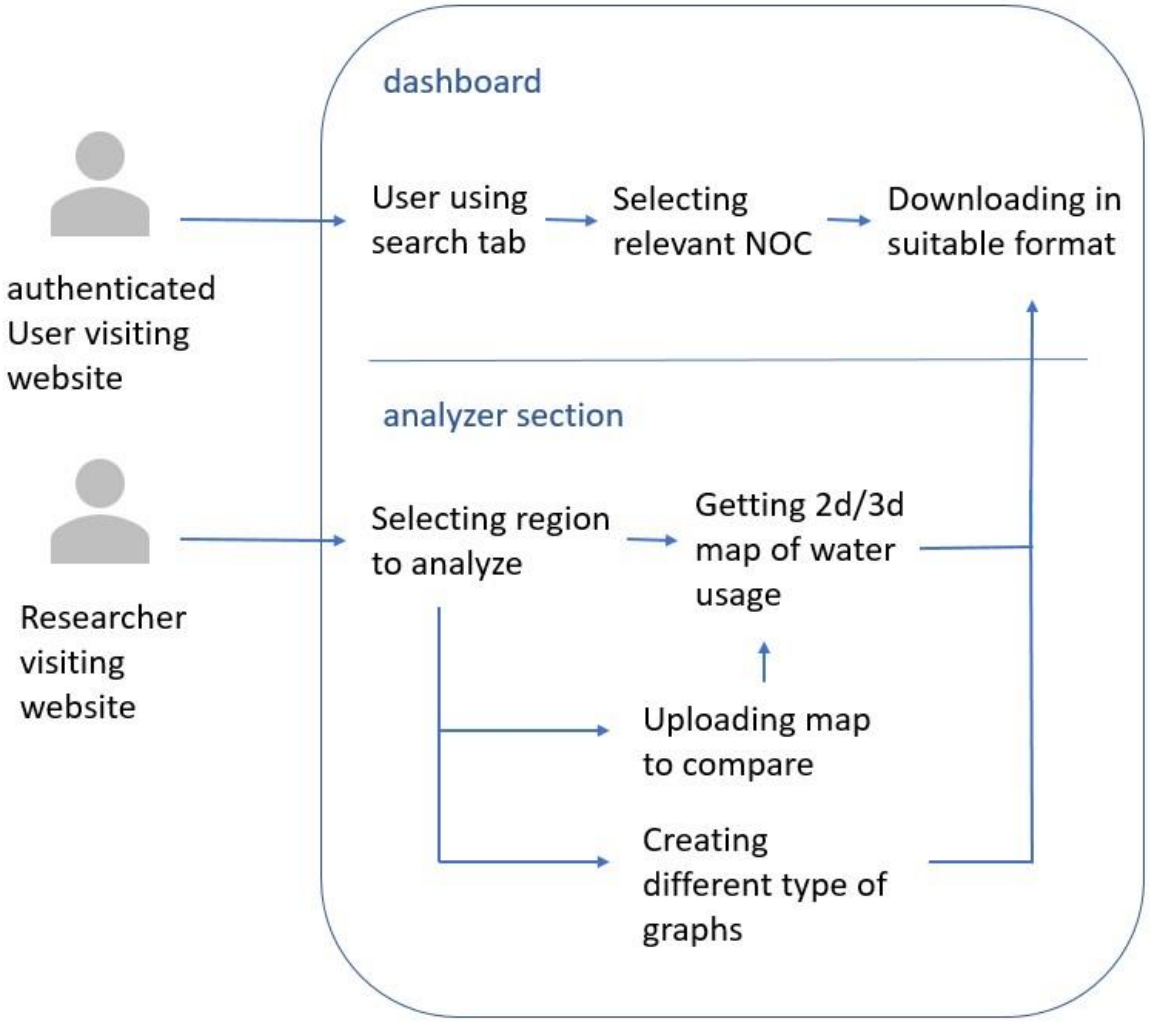
Problem Code:GG4

College Code : 1-3516313199

IDEA/SOLUTION:

- The CGWA provides NOC to Industries with the purpose to keep track of amount of ground water used in a region.During census or statistical study of ground water the water usage details specified in NOC can be an important factor.Unfortunately,there is no tool available to access and assess,the NOC data.This problem can be tackled by building a web platform.
- The website can be accessed by the user to access the NOC information and also use this data to plot it on inbuilt **GIS**(geographic information system) system for easy assessment.
- When the user visits the website,user can search for the NOC data using the **search** tab.The search has different filters using which user can customize search on various parameters including (region,NOC id).
- This search will use the CGWA database to deliver NOC data in digitized format.NOC can then be downloaded in suitable format(pdf,excel sheet).
- This platform features a built in **analyzer** section.The user can use this to study water usage,build reports and plot water usage maps for different regions using NOC data.
- The user can also upload previous years water usage data/maps,this system will compare the data and plot different type of graphs/maps based on it.The compared graphs can also be downloaded as (jpg,pdf,.map).
- The unique feature about this analyzer is, it automatically converts the NOC data in the format required to plot on maps (eg:real address to co-ordinates) and builds reports,thus reducing human interaction.
- Thus this system will provide a great help to CGWA and will act as an ideal platform to assess the ground water extraction process.

Use Cases:



1. Industrial personnel using this website for checking water usage limit.
2. Environmental Researcher using this website to assess water usage in an area.
3. Farmers using this website to check ground water rich regions.
4. Town/project planners using this website to assess,check water usage to plan real estate projects.
5. CGWA personnel using this website to keep track of ground water usage by industries.
6. MIDC personnel using this website to plan setting up of new industrial zones.

TECHNOLOGY STACK:

Web Framework:

- Node.js (backend) with Express.js/Flask

Frontend:

- HTML5,CSS3,Bootstrap,jQuery, AngularJS

Database:

- MongoDB/MySQL

Web Server:

- Apache

Open Source frameworks:

- Leaflet
- Cesium
- OpenLayers
- D3.js

SHOWSTOPPERS/ DEPENDENCIES:

- The digitized NOC data needs to be supplied at the time of development of the website