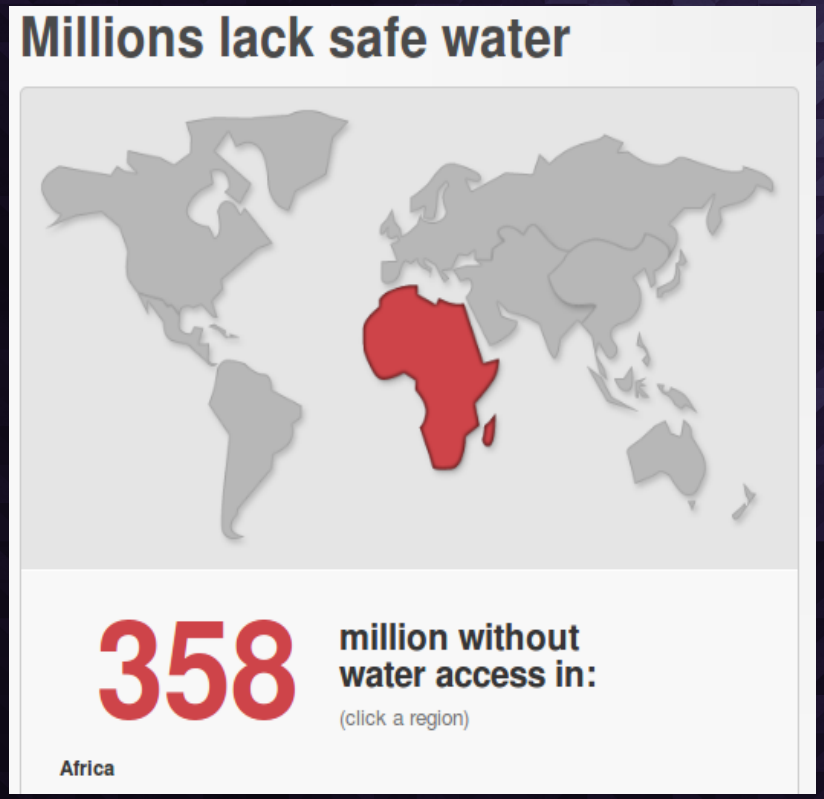
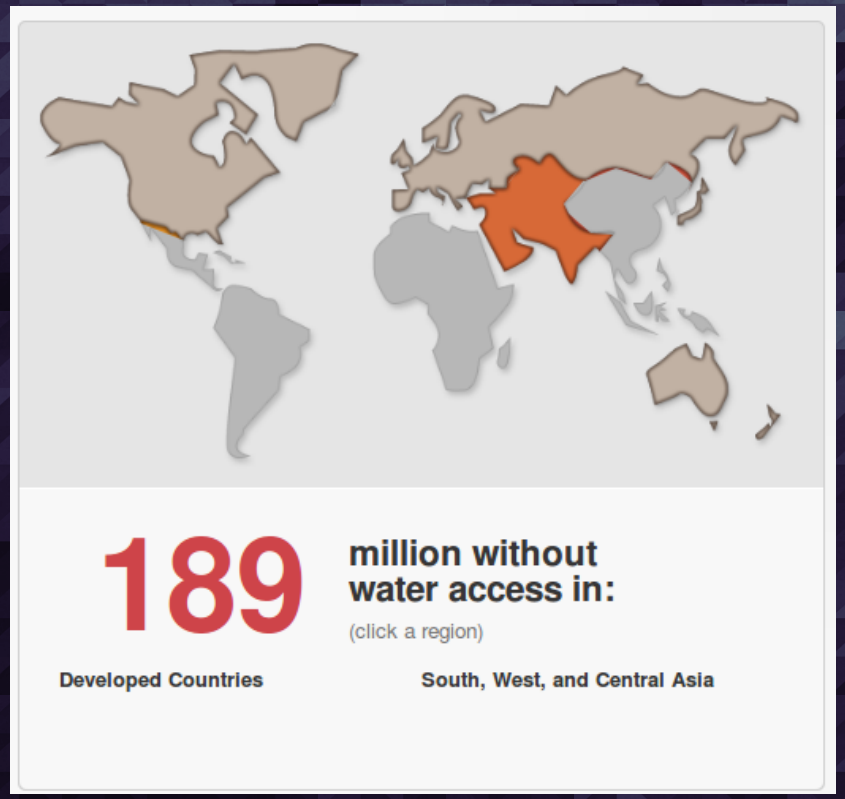
Global Clean Water Mapper

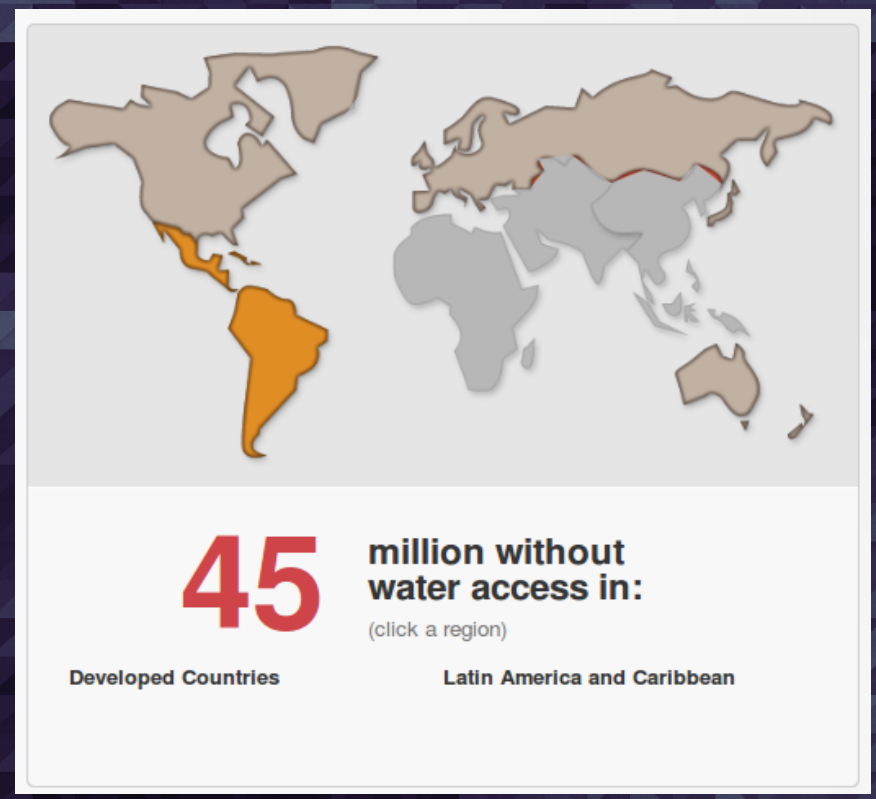
BASIC INFORMATION

- Team Name : IUB Quarks
- Project Name : **Global Water Mapper**
- Target Domain:
- **#earth (Clean Water Mapping)**

Impact





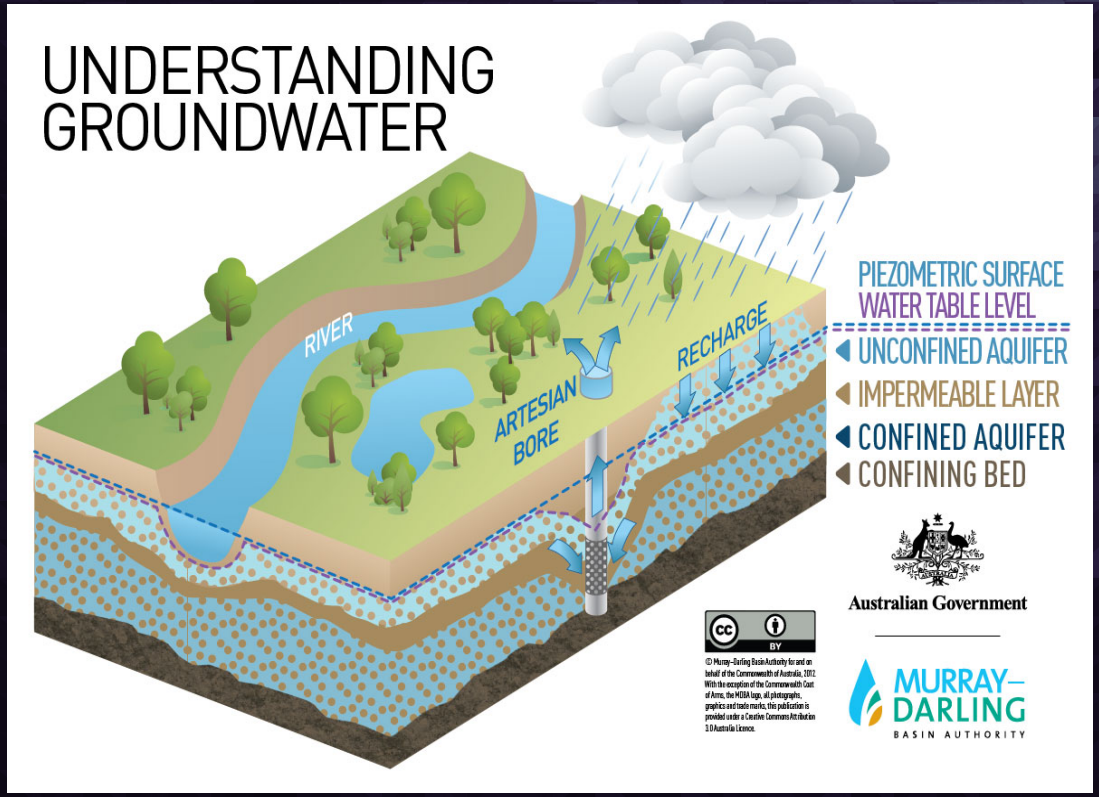


Millions of people are struggling everyday for safe potable water.

Approximately 80 gallons of water are used by each person per day._

What we need

- An easy to use Survey Application
- For Both :
- HydroGeologists (State Run) who will perform different tests such as Arsenic Test or pollution tests.
- Individuals all over the world(who will report to the authority about water scarcity & potable water locations and their type)
- A Crowd Sourced , Open Source Application .
- A Centralized Open database for Researchers to work with big data and see Trendz in pollution and water checmical contents.



- Our Project Contains a Mobile Application for Surveyers.
- A Data Visualization Tool Backend for Hydrogelogists.
- An Open Database where the data is being dumped
(to allow other researchers to make their own water mapping application).
- SMS based for backward device compatibility.

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Consider creating an app that is **accessible to technical users** (**managers** and **technicians** of **organized rural aqueducts**)

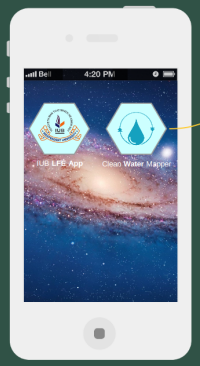
Made in OpenSource
www.nodesReOpen.com
cse.iub.edu.bd

Created Using EVOLUS PENCIL (Open Source Tools)

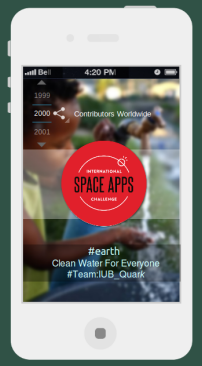
Clean **Water Mapper, UI Prototype V1.1.1**

Epoch Time : 1428339349

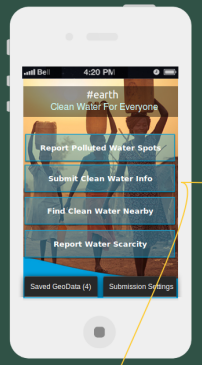
Menu **Selection**



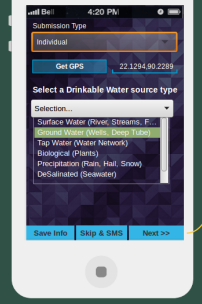
App **Home** Screen



Menu Choices

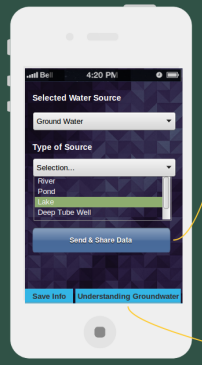


Survey of Drinkable Water Sources

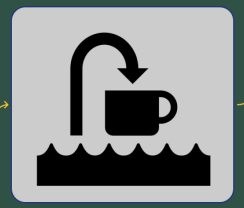


App is similar to OpenSource tool ODK (Open Data Kit)

Individual Assessment of Water Source



Seperate Set of Questions for Individuals



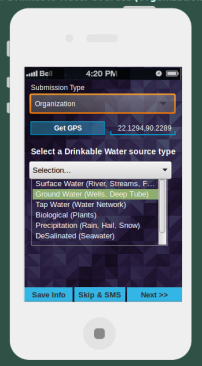
Collected Data :
1. GPS Location of the Water Source (Device GPS)
2. Water Source Category (User Entry)
3. Water Source Type (User Entry)
4. Submitter Phone Number (From SMS)
5. Name (User Entry)
6. Submission Type (For Seperation) (User Selection)

SMS Gateway

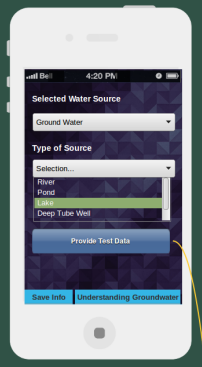
Database (MySQL, OpenSource)

Data Visualization (over mined data) using Graphical Tools and Maps for Administration and Emergency Water Scarcity Service for government & community (Desktop Based)

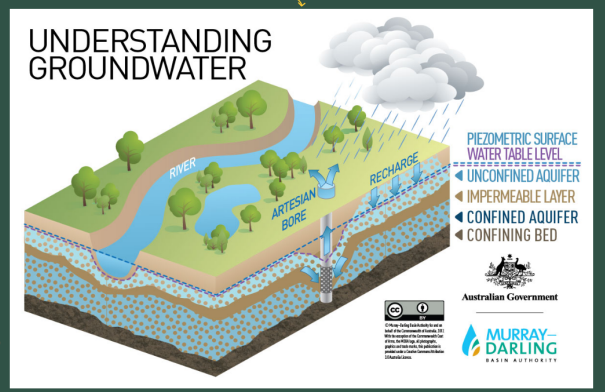
Survey of Drinkable Water Sources (Organization)



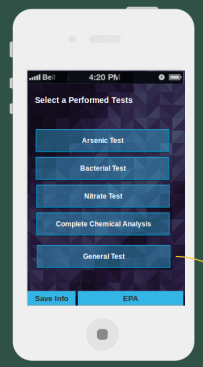
Organizational Assessment of Water Source



Seperate Set of Questions for Organizations (Hydrology)



EPA Standard Submission (http://water.epa.gov/drink/)



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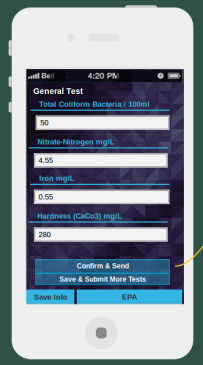

SMS

Conclusion

Challenge :
The challenge is to improve mapping of drinking water resources. This could include
Development of a **crowdsourcing app** to **monitor and map**: **GPS, GIS**
potable water availability **(well/stream/reservoir** levels as measured by **local people/ organizations**) : **Checked**
water quality : Through **Arsenic & Different Tests**
contaminants and ground water : **Pollution Mapping**
This can help with identification of priority areas experiencing **water stress** : **Water Scarcity Reporting**
(spatially and temporally) and contribute to improved access to drinking water. Along with available soil, weather and climate data, this could feed into early warning systems for regions that are under water stress. : **DATA VISUALIZATION TOOLS**

- Completeness of the solution : Moderate
- The Plan is to make the app & service publicly avaliable and through contacting organizations , such data will identify zones with water stress eventually leading to mitigation water Stress.
- **Shortcomings** : Could be enhanced further with Augmented reality. Core Functionality Achieved. Need more time to perfect other features. It should be ported to all platforms, not only Android.
- Coded in **Offical Android Studio(OpenSource)** and Java. More sustainable, for future development and Forking. Advantage of a Larger Community (no phone gap, no online tools, pure code, less dependency, longer durability).

Thank you for saving lives.

Team :
IUB_Quarks

5 WELLS IN 5 DAYS