

IT Systems course project demonstrations (October 7th, 2017)
Note to resource persons

Each group is implementing two websites as described below. Please ask them to demo the 6 highlighted sub-tasks given below and let me know your feedback about each sub-task. E.g. Outstanding (A), Good (B), OK (C) and Bad / Demo not shown (D). Please also give feedback on any extra sub-tasks the groups may want to demo.

- 1) Website 1: It contains a database with following information:
 - a. Households
 - i. Longitude and Latitude; Total monthly income
 - ii. Name/Gender/Age of each member; Family/House/Other photos; Interview audio clips
 - b. Farms: Each household can have 0, 1 or more farms.
 - i. Longitudes and Latitudes, Total area
 - ii. Season-wise cultivated area under different crops, Photos, Audio clips
 - c. Wells: Each farm can have 0, 1 or more wells.
 - i. Longitude and Latitude, Depth, Average water yield
 - ii. Date-Time-wise observed water yields, Photos, Audio clips
- 2) Website 2: It does the following:
 - a. Obtain data about households, farms, wells from website 1 (using REST architecture).
 - b. Show these features as a map in a browser using appropriate legend.
 - i. **Sub-task 1:**
 1. Add (or delete) data about a household, farm or well in the database of website 1.
 2. It should (almost automatically) appear (or disappear) in the map on website 2.
 - c. Whenever user clicks on a feature, show its attributes: photos, audio clips and text attributes.
 - i. **Sub-task 2:**
 1. Modify text attributes of a household, farm or well in the database of website 1.
 2. Click on it in the map of website 2. Modified text attributes should show.
 - ii. **Sub-task 3:** Click on a feature that has at least one photo attribute field populated. The photograph(s) should show along with text attributes.
- 3) Enhance visualization of various features in above maps in the following way:..
 - a. **Sub-task 4:** 3D visualization of wells: Show each well as a column/hole in 3D. Its length should be proportional to well depth. Color should be proportional to average water yield.
 - b. **Sub-task 5:** Farm-wise visualization of crops and their areas: On each farm, show a pie chart that displays one sector for each crop grown on that farm. Each sector's color and area are indicative of what crop they represent and what % of that farm area is growing that crop.
 - c. **Sub-task 6:** Visualization of households: Show each household as a large dot. Its diameter should be indicative of the family size and color of its income.
- 4) Extensions: **Any extra sub-tasks the groups may want to demo e.g.:**
 - a) Virtual Reality (VR)? b) Augmented Reality(AR)? c) Mobile updates/views?
 - d) Gamification? e) Others?