## TracMobility Intern Assignment

Objective: This assignment will test the candidates' ability to write an algorithm and design the front-end page.

## **Problem Statement:**

- Write an algorithm for given N edges find whether those edges form a connected graph(<u>https://en.wikipedia.org/wiki/Graph\_(discrete\_mathematics)#</u> Connected\_graph).
  - a. 0 <= N < 10000
  - b. Input: comma separated list of edges
    - Example: a1-a2,a3-a5,a6-a4,a4-a1
  - c. Output: Connected | Not Connected
  - d. Examples:
    - i. Input: a1-a2,a2-a3,a3-a4 Output: Connected
    - ii. Input: a2-a5,a1-a7,a5-a7,a3-a4 Output: Not Connected
- 2. Design and develop a web page which allows the user to register into the system.
  - a. Input fields are
    - i. User Name(First and Last Name)
    - ii. Phone Number
    - iii. Email Address
    - iv. Password
  - b. Proper validation for entering phone number and email address before click of "Register".
  - c. And these entries should be stored in Database(ex. SQLite).