What is the project
Find vulnerabilities in android apps that have “People nearby” feature and exploit it by getting precise location of people in a location that is different from your current location. We also plan to leverage this project by making an automatic analysis system that identifies apps that have “People nearby” feature

Why is tackling this project important
“People Nearby” feature can be misused. Considering there are over 60 location based social apps this can be dangerous. We hypothesize that attackers can spoof their location and view the location of people that are in the spoofed location. By exploiting this vulnerability in these apps, we plan to show the need for tighter security rules for apps with the “People Nearby” feature.

How do you plan on tackling the project
April 5th - April 12th

- Find at-least 5 Apps that offer People nearby Feature.
- Setup testing environment
    - A proxy server → to read the location information. How will we see the communication between the app and the server?
    - Find a good GPS location spoofing mechanism →
        - there is an app that changes the location, such that the target app sees a different location.

We were only planning to find apps that use the people nearby and find a GPS spoofer but not test the apps in the first week.

March 13th - April 20th

- Test if apps detect GPS location spoofing

----------> Tasks to be completed MID EPOCH <----------

- **Try to get the precise location of the users if apps allow spoofing**

April 21st - Onwards

- Build a tool to detect the apps that offer “People nearby” feature and potentially vulnerable to the precise location theft attack.
- Write the report.
- Practice the Demo

List of 3 sets of deliverables (I'll take these under advisement when grading, but I don't promise to strictly abide by them):
Set of deliverables that will yield a passing grade

- Manually find apps that offer “People nearby” feature.
- Show that you can spoof your location in some of these apps.

Set of deliverables that will yield an A grade

- Exploit this vulnerability in 3 apps.
    - Determine the precise location of other user’s.

    - We change our location and get access to the location of the user . (Info we weren't supposed to get access to) → we think this is not very straight forward as few apps can flag the user if they suddenly change their location to another city so we will have to come up with a mechanism so they cannot detect the sudden location change.

Set of deliverables that shows work clearly beyond an A

- Design an automatic analysis tool that can detect the apps that offer "People Nearby" feature.

Link to a git repository where you'll keep all the code, documentation, and development through the project.

- https://github.com/muzammilLUMS/Vulnerability-Analysis