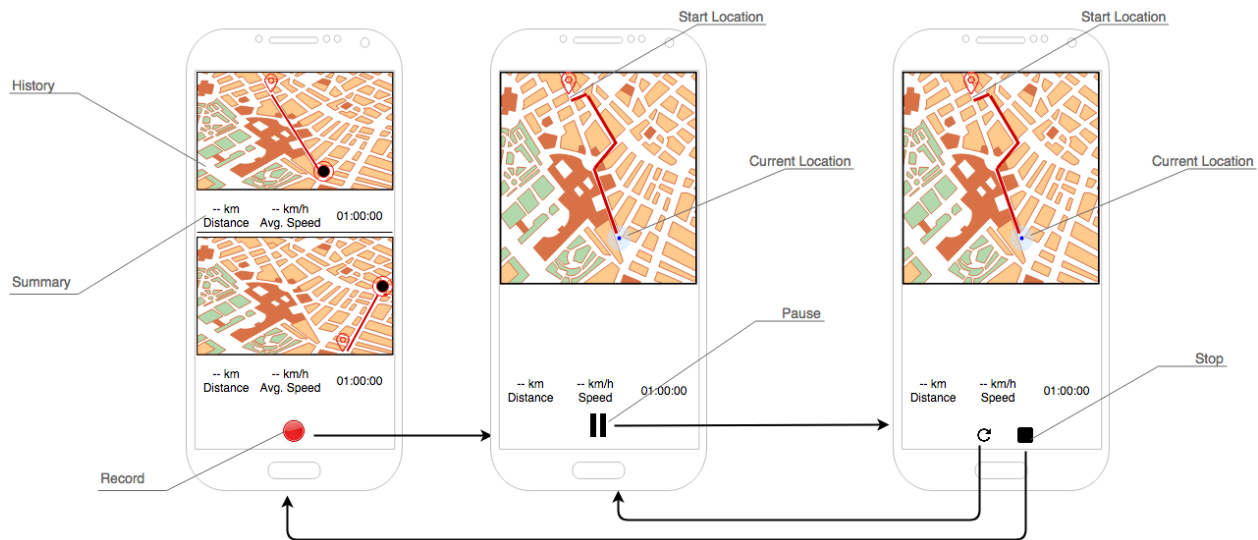


TRACKME APPLICATION

We're going to create an application which helps user tracking speed, distance and duration during workout sessions. The UI mockup is described below:



1. General requirements

- ❖ The application is required to support **Android 5.0+**
- ❖ User should be noticed by the application to grant **all permissions**: Location Permission, Location Service, etc.
- ❖ Data structure, Database storage are decided by Developer

2. History

- ❖ List out all workout sessions. User may have **unlimited sessions** in history, latest session is on the top of list
- ❖ Application is required to **work smoothly** while user scrolls down to view sessions in past
- ❖ Each session: Display Map Route, Distance, Duration and Average Speed
- ❖ User taps on Record button to start a new session

3. Record

- ❖ Record Current Speed, Current Distance and Duration
- ❖ Display Current Speed, Current Distance and Duration
- ❖ Start Location should be displayed on the Map
- ❖ Current Location of user should be displayed on the Map
- ❖ Route should be displayed on the Map
- ❖ User should be able to Pause, Resume, Stop current session
- ❖ To save battery, the application is required to be able run in background or when phone screen is off
- ❖ When the application is in background and there is active session is being recorded, if user opens the app again, it should navigate user to active session (Record screen):
 - Current Distance, Current Speed and Duration are required to be updated correctly when user opens the app from background
 - Route Map is required to be updated correctly when user opens the app from background
 - Pause, Resume and Stop button should keep its state when user opens the app from background

Note:

- Current Speed: Realtime speed of user, calculated by GPS or ($v = s / t$)
- Average Speed: Average of all speed information recorded during workout session
- Source code is required to be uploaded to personal GitHub account