Release Note

**Video Tour of the result:**

https://youtu.be/1E07bOsr-84

**Project instruction:**

A watch face using kotlin and Android Studio.

1. Used heart rate sensor to track heart rate and displayed it on watch face.
2. Stored the current time and heart rate in Room Database.

**Please follow these steps to test the watch face:**

1. edit the runnable configuration. Set launch as ‘nothing’.
2. Create an emulator. 360\*360 mdpi would be the best.
3. After successfully installing it, we **must grant the sensor permission** following these steps:

setting→app& notifications→App info→ZeyuWatchFace→App permissions→sensor, allow

1. go back to the home page, touch the screen to switch the watch face to Zeyu Analog.
2. Let’s open extended controls and click the virtual sensor. Now we can adjust the virtual heart rate sensor, and the current value will be displayed on our watch face.
3. Check Logcat for data stored in Rom Database.

**Warning:** If Zeyu Analog is switched before allowing the permission, the heart rate won’t change. Set the permission first, switch to another watchface, and then switch back to Zeyu Analog, now the problem is solved.

**What can be improved:**

1. Automatically grant permission.

*requestPermissions(permissions, PERMISSION\_REQUEST\_CODE)*can be called in an Activity, but watchface is a Service. I have tried multiple ways to achieve permission requests but they all didn’t work. I would like to do more research on it in the future.

1. Draw electrocardiogram using the latest 30 records of heart rate on watchface, which will make it easier for users to track their heart rate while they are doing sports. Because while people are jumping or moving, it is hard for us to read a small number on the wearable device.