



PRESENTATION 9/25

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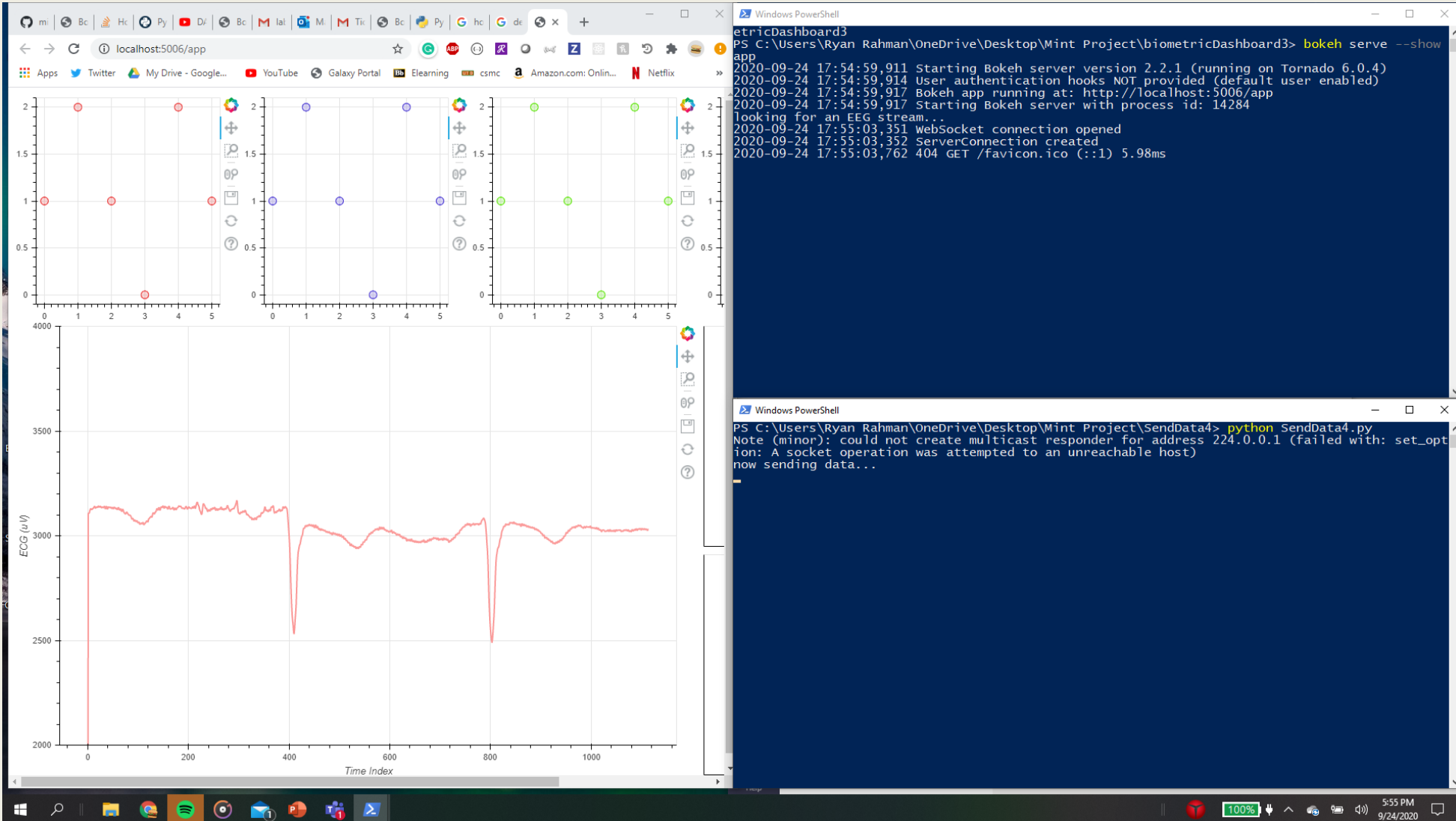


Objectives

- Get app bones running
- Comment thru main.py and ecgModule
- Additions to ecgModule

Outcomes

Running App Bones



Outcomes

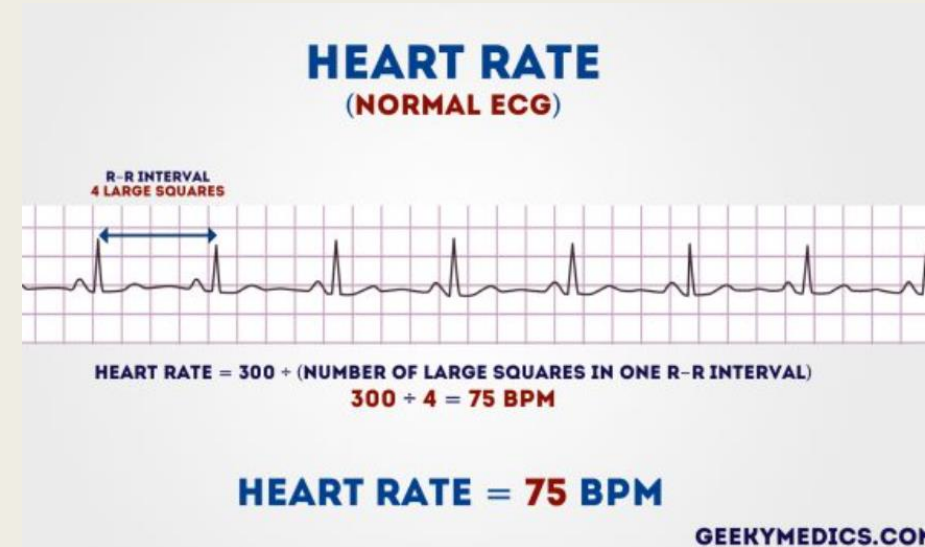
Comments

```
# DEFINE FUNCTIONS TO GET REAL TIME DATA
# -----
# allows data to be recieved/updated while other tasks are being ran
# allows program to contionously get data from data stream |
@gen.coroutine
def update(eeg_1, eeg_2, eeg_3, eeg_4, eeg_5, eeg_6, eeg_7, eeg_8, eeg_9, eeg_10, \
eeg_11, eeg_12, eeg_13, eeg_14, eeg_15, eeg_16, eeg_17, eeg_18, eeg_19, eeg_20, \
eeg_21, eeg_22, eeg_23, eeg_24, eeg_25, eeg_26, eeg_27, eeg_28, eeg_29, eeg_30, \
eeg_31, eeg_32, eeg_33, eeg_34, eeg_35, eeg_36, eeg_37, eeg_38, eeg_39, eeg_40, \
eeg_41, eeg_42, eeg_43, eeg_44, eeg_45, eeg_46, eeg_47, eeg_48, eeg_49, eeg_50, \
eeg_51, eeg_52, eeg_53, eeg_54, eeg_55, eeg_56, eeg_57, eeg_58, eeg_59, eeg_60, \
eeg_61, eeg_62, eeg_63, eeg_64, \
ecg_x, ecg_y, spo2, gsr):
    source.stream(dict(eeg_1=[eeg_1], eeg_2=[eeg_2], \
```

Outcomes

Additions to ECG Graph

- Adding tool tips to each data point displaying healthy heart rate
- Color coding graph to signify distinct phases of ECG
- Heart Rate
 - Normal: 60-100 bpm
 - Tachycardia: > 100 bpm
 - Bradycardia: < 60 bpm
- Regular Heart Rhythm Calculation
 - Count the number of large squares present within one R-R interval.
 - Divide 300 by this number to calculate heart rate.



Next Week

- Implement tool tips
- Figure out an algorithm to differentiate between each phase of the ECG