



PRESENTATION #2

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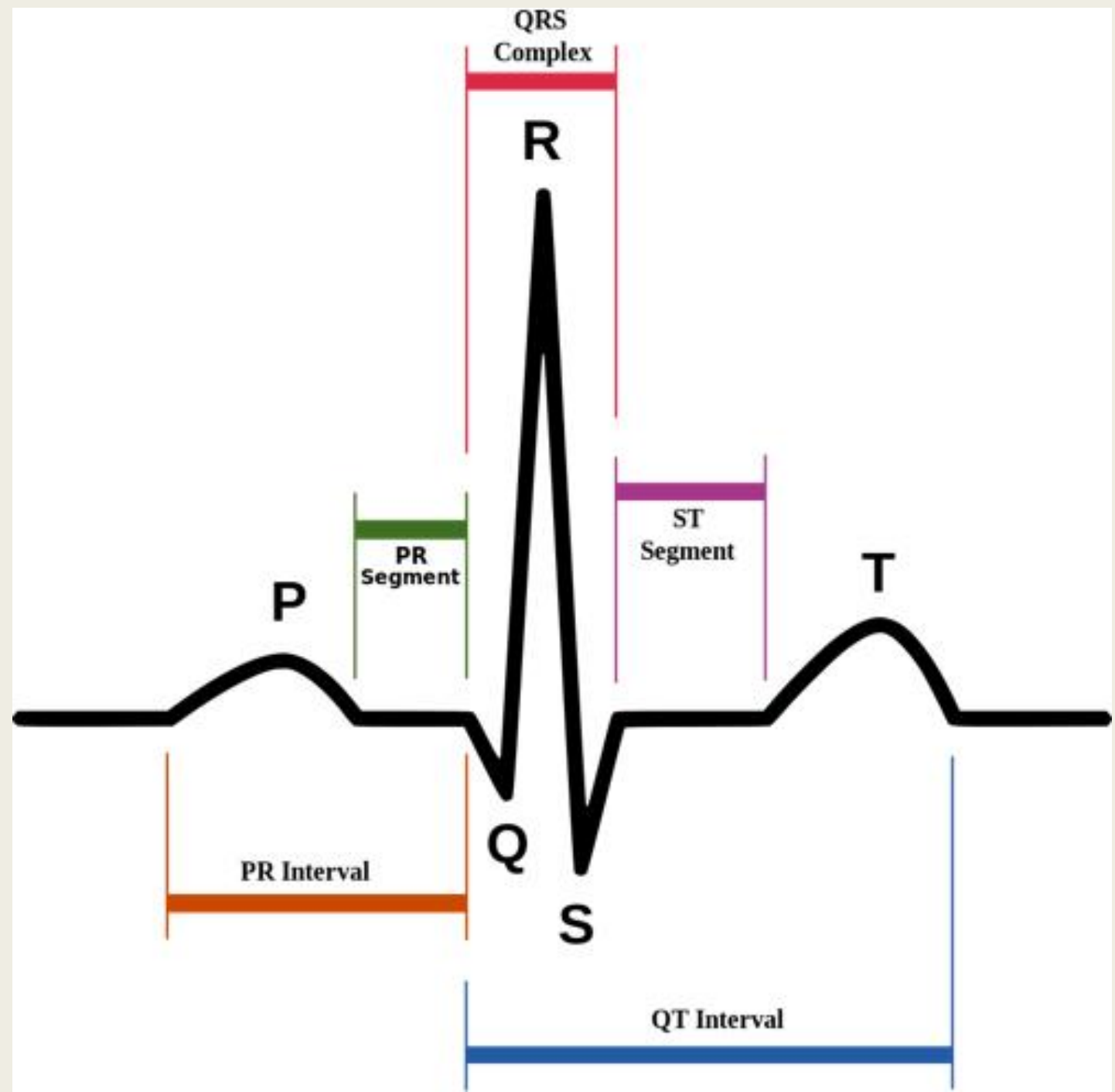
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Objectives

- Get more familiar with ECG
- Get more familiar with python concepts

ECG Diagram



Outcomes

- An ECG mainly records how often the heart beats(heart rate) and how regularly it beats(heart rhythm)
- P Wave – represents atrial depolarization
 - *Used to determine if patient is in sinus rhythm or not*
 - *In healthy individuals, there a P wave should precede QRS Complex indicating a sinus rhythm*
- QRS Complex (generally the biggest wave) – represents depolarizations of ventricles
 - *Encompasses Q, R, and S waves*
 - *If immediately after P wave*
 - is an upward deflection its an R wave – represents depolarization of main mass of ventricles so it's the largest wave
 - Is a downward deflection it's a Q wave – represents depolarization of interventricular septum
 - *S wave represents depolarization of the ventricles at the base of the heart*
- T wave – represents ventricular repolarization
 - *Is the small wave right after the QRS complex*

Python Concepts

@gen.coroutine

- *“decorated” or “yield-based” coroutine using Tornado framework*
- *Generator-based interface to make it easier to work in asynchronous environment*
 - *Allows other tasks to run while the current task is working, which lets you avoid waiting for the current task to finish*

Threading

- *Allows you to have different parts of your program run concurrently and simplify the design*
 - *Speeds up your program*

One important difference between threads and coroutines is that threads are typically preemptively scheduled while coroutines are not