AlertGenerator

-randomGenerator: Random
-alertStates: boolean[.]

+generate(patientId: int, outputStrategy: OutputStrategy): void
+AlertGenerator(patientCount: int)
+evaluateData(data: PatientData): boolean
+triggerAlert(alert: Alert): Alert

genrerates alert

Alert

-patientId: int
-condition: String
-timestamp: double

+Alert(patientId: int, condition: String, timestamp: double)

+patient data

ECG

+sends alert

AlertManager

-alert: Alert

+AlertManager(alert: Alert)
+alertStaff(alert: Alert): void
+updatePatientProfile(alert: Alert): void

+patient connected to the ECG

+informs staff devices

patient

+sends alert to update patient data

Staff Devices

Patient Data

-patientId: int
-metrics: patientData
-timeStamp: long

+updatePatientData(data: patientData, patientId: int, timestamp: long): void

The patient is connected to an ECG monitor, this outputs a data stream which will be rationalized in a future class (this design is primary, its deficiencies are a result of chronic procrastination from both team members resulting in a gross misjudgment of the task and workload which consequently lead to the series of subpar system designs, this will be fixed). AlertGenerator makes sense of the inputStream, its data evaluation method will assess whether certain vitals are at a critical level based off thresholds, if they are an Alert is generated which is received by AlertManager which notifies the staff, and updates the patient's data with this information.