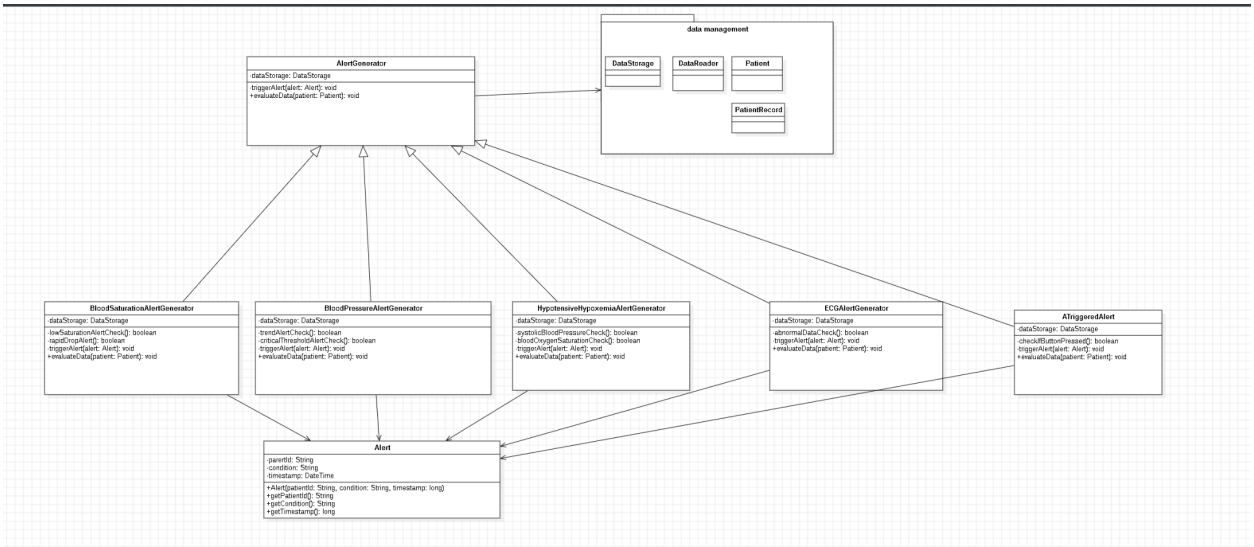

The UML diagram depicts a system designed for generating and managing alerts based on patient data. The central class, `AlertGenerator`, serves as an abstract base class for various specialized alert generators, including `BloodSaturationAlertGenerator`, `BloodPressureAlertGenerator`, `HypotensiveHypoxemiaAlertGenerator`, `ECGAlertGenerator`, and `ATriggeredAlert`.

Each of these specialized classes inherits from `AlertGenerator` and implements methods to evaluate patient data and trigger alerts. The `AlertGenerator` class contains two key methods: `triggerAlert(alert: Alert)` and `evaluateData(patient: Patient)`. The subclasses extend these functionalities with specific checks relevant to their domain. For instance, the `BloodSaturationAlertGenerator` includes methods like `lowSaturationAlertCheck()` and `rapidDropAlert()`, which check for specific conditions in blood saturation levels.

Similarly, the `BloodPressureAlertGenerator` includes methods such as `trendAlertCheck()` and `criticalThresholdAlertCheck()` to monitor blood pressure trends and critical thresholds. The `HypotensiveHypoxemiaAlertGenerator` combines checks for both blood pressure and oxygen saturation, with methods like `systolicBloodPressureCheck()` and `bloodOxygenSaturationCheck()`.

The `ECGAlertGenerator` focuses on abnormalities in ECG data with its `abnormalDataCheck()` method. The `ATriggeredAlert` class includes a unique method `checkHButtonPressed()` to handle alerts triggered by specific button presses.

Central to these classes is the `Alert` class, which encapsulates alert information such as `patientId`, `condition`, and `timestamp`. It provides methods to retrieve these attributes, ensuring consistent data management across different types of alerts.

The `DataStorage` class, shared across these alert generators, manages the patient data, facilitating the evaluation and triggering processes. This structure allows for a modular and extensible system capable of handling diverse alert conditions and integrating new types of alerts as needed.