



The class diagram for the Data Storage System illustrates the structure and relationships among the key components responsible for storing and managing patient data. At the core of the system is the `DataStorage` class, which is responsible for storing patient data securely. This class provides methods for storing, retrieving, and deleting patient data, ensuring the integrity of the information.

The `DataStorage` class has associations with the `PatientData` class, representing the data for a patient at a specific point in time. This association indicates that the `DataStorage` class interacts with instances of `PatientData` to perform operations such as storing, retrieving, and deleting patient data records. Additionally, the `DataStorage` class provides an API for communication with other systems, such as the Alert Generation System. This interaction is facilitated through associations with the Alert Generation System classes, enabling the retrieval of historical patient data for more complex condition evaluations and supporting the association of incoming data with correct patient records.