**Amazon’s Dynamo**

**Submitted by: Junaid Aslam (20SW084)**

**Submitted to: Mam Rafia**

One of the things Amazon has discovered through managing Amazon's platform is that a system's scalability and dependability depend on the way its application state is managed. Amazon has created several storage solutions, the most well-known of which is the Amazon Simple Storage Service, to suit reliability and scaling requirements. Dynamo has served as the underlying storage technology for a few of Amazon's essential e-commerce platform services during the past year. The hundreds of services that make up Amazon's e-commerce platform collaborate to provide functionality ranging from suggestions to order fulfilment to fraud detection. These services are housed in a system that is made up of tens of thousands of servers spread out across numerous data centers across the globe. Most of these services don't need the intricate querying and administration capabilities that an RDBMS offers; instead, they just store and retrieve data using primary keys. Dynamo is resource-efficient, with a clear consistency window, a straightforward scale-out mechanism to handle increases in data set size or request rates, and a straightforward key/value interface. Various storage engines can be inserted into Dynamo's local persistence component. Designing a pluggable persistence component allows developers to pick the storage engine that best matches the access patterns of their application. Applications select the local persistence engine in Dynamo depending on the distribution of object sizes. BDB Transactional Data Store is used by many Dynamo's production instances.