* 1. **Tracking Entity Objects – Mark Mukiiza**

DbContext in Entity Framework is responsible for tracking the changes made on an entity or object, so that the correct update is done to the database when the SaveChange() method of context is called. When we retrieve entities using an object query, the Entity Framework puts these entities in a cache and tracks whatever changes are made on these entities until the savechange method is called. Entity Framework tracks the query results that return entity types. The Change Tracking tracks changes while adding new record(s) to the entity collection, modifying or removing existing entities and all the changes are kept by the DbContext level. These track changes are lost if they are not saved before the DbContext object is destroyed. DbChangeTracker class gives you all the information about current entities being tracked by the context also to track any entity by the context, it must have the primary key property.

In Entity Framework, change tracking is enabled by default.

**1.9 Client Server systems – Mark Mukiiza**

Client-server systems are a software architecture model consisting of two parts. Client systems and server systems, both communicating over a computer network or on the same computer. A client-server application is a spread system made up of both client and server software. Client server applications provide an improved way to share the resources. The client process is always the one that initiates a connection to the server, while the server process is always waiting for requests from any client.

The client-server relationship describes the relation between the client and how it makes a service request to the server, and how the server can accept these requests, process them, and return the requested information to the client. The interaction between client and server is often described using sequence diagrams. Sequence diagrams are standardized in the Unified Modeling Language.

When both the client process and server process are running on the same computer, this is called a single seat setup. Most servers have a one-to-many relationship with clients, meaning a single server can provide resources to multiple clients at one time when the server is running on a different computer than the client.