SQL Server - Locking

LOCKING occurs when connection needs access to a piece of data in database and it’s necessary for SQL Server when managing multiple connections. \

**Finding locking information:**

Sp\_lock

**SQL Server supports the following types of locks:**

· **Shared locks (S)**: It is used when performing read-only operations against the database. Resources locked with a shared lock are available for SELECT, but not for modification.

· **Exclusive locks (X)**: Used for operations that modifies data, such as, INSERT, UPDATE and DELETE statements require exclusive locks. No more than one transaction can have an exclusive lock on a resource. If there is an exclusive lock on a resource, no other transaction can access that resource.

· **Intent lock**: Sets a lock hierarchy. For example, if a transaction has an exclusive lock on a row, SQL Server places an intent lock on the table. When another transaction requests a lock on a row in the table, SQL Server knows to check the rows to see if they have locks. If a table has no intent lock, it can issue the requested lock without checking each row for a lock.

· **Update lock (U)**: This type of lock usually placed on a page before performing an update. When SQL Server is ready to update the page, the lock will be promoted to an exclusive page lock.

· **Schema lock**: It is used to prevent a table or index that is being used in another session from being dropped or its schema being modified. When a resource is locked with a schema lock, the object cannot be accessed.

· **Bulk update locks (BU)**: It is used to prevent other processes from accessing a table while bulk load procedure is being processed. It will, however, allow treatment of concurrent bulk load processes, allowing you to execute parallel loads. A bulk load procedure is one performed by using bulk copy program (bcp) or BULK INSERT.