Q2:

1. Transaction Logging (redo log in MySQL):

* **Similarities:**
* Using this strategy, a record of every transaction made on the database is kept. The transactions from the log can be replayed if there is a system failure, to bring the database back to a consistent state.
* Modifications that did not finish updating data files before an unexpected shutdown are replayed automatically during initialization and before connections are accepted.
* **Differences:**
* If all changes are flushed from the buffer pool to the tablespaces at the time of the shutdown or crash, redo log application is skipped. InnoDB also skips redo log application if redo log files are missing at startup.
* During recovery, InnoDB scans the redo log to collect counter value changes and applies the changes to the in-memory table object.
* When encountering index tree corruption, InnoDB writes a corruption flag to the redo log, which makes the corruption flag crash safe.

<https://dev.mysql.com/doc/refman/8.0/en/innodb-recovery.html>

<https://dev.mysql.com/doc/refman/8.0/en/innodb-redo-log.html#:~:text=The%20redo%20log%20is%20a,or%20low%2Dlevel%20API%20calls>

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.