Module: UVM-1
Section: Ready to start coding? **Task:** Project 1

Project 1 - EDA Link

Task

➢ **List down uvm component classes and object classes.**

Object Classes	Component Classes
1. Transaction 2. Base sequence 3. Reset sequence 4. Priority sequence 5. Wrap sequence	1. Test top 2. Sequencer 3. Scoreboard 4. Monitor 5. Environment 6. Driver 7. Agent

➢ **What is build phase. Why it is top to bottom. In build phase what does this line do?**

```
super.build_phase (phase)
```

The build phase constructs and configures all UVM components top-down. It ensures that child components are created before any subsequent phases start. Calling "**super.build_phase(phase)**" runs the parent's build phase first, ensuring the hierarchy is built correctly.

➢ **What is run_phase. Is it task or function? And in which components do we use it?**

The "**run_phase**" is a task that runs concurrently in components to execute test behavior and stimulus generation. It's commonly used in driver, monitor, and scoreboard components to drive transactions, monitor activity, and perform checks.

➢ **What is phase.raise_objection and phase.drop_objection. Tell about their function in one line each.**

a. **phase.raise_objection**: This function is called to indicate that a particular phase requires additional time to complete, preventing the simulation from moving to the next phase until all objections are dropped.

b. **phase.drop_objection**: This function is used to remove a previously raised objection, signaling that the phase can proceed to the next one if no other objections remain.

➢ **How handshaking between driver and sequencer works?**

Handshaking between a driver and a sequencer in UVM involves the sequencer calling **get_next_item()** to request a transaction, which blocks until the driver is ready. The driver then processes the transaction and calls **item_done()** to acknowledge completion. This ensures synchronized communication and prevents overwhelming the driver.