Advanced Apex Interview Scenarios

1. Apex Execution & Transaction Behavior

- Savepoints and rollbacks with async execution

- Partial commits and transaction behavior

- Future callouts after transaction rollback

- Request vs per-transaction limits

2. Governor Limits – Deep Cases

- Hidden SOQL queries via lazy loading

- JSON serialization causing unintentional SOQL

- RecordTypeInfo hidden query behavior

3. Apex Concurrency & Locking

- FOR UPDATE vs implicit locking

- Deadlocks and recursion pitfalls

- Lock avoidance in parent-child relations

4. Sharing, FLS & Security in Apex

- With/without/inherited sharing across contexts

- Untrusted execution context

- Enforcing FLS without stripInaccessible

5. Async Apex – Advanced

- Queueable chain depth strategies

- Scheduled Apex failure conditions

- Batch ↔ Queueable interaction limits

6. Apex Callouts

- Retry patterns in Queueable vs Batch vs Continuation

- Callouts in Database.Stateful batches

- Behind-the-scenes continuation execution

7. Apex Testing – Enterprise Level

- Mocking chained Queueables

- Test.setup vs Test-visible vs Stub APIs

- Testing record locking and partial batch failures

8. Large Data Volumes (LDV) in Apex

- Handling non-selective queries

- SOQL >50k row strategies

- Skinny table implications

9. Apex Optimization & Design Patterns

- CPU time bottlenecks

- Bulkification anti-patterns

- Selector/Domain/Service pattern cases

10. Apex Metadata & Dynamic Operations

- Dynamic generation of metadata

- Dynamic SOQL performance impacts

- SObject.clone vs System.clone differences

11. Trigger Architecture (Advanced)

- Recursion prevention

- Deferred updates using async processes

- Trigger ordering limitations

12. Error Handling & Resiliency

- Retry-safe DML logic

- Transaction-level logging

- Detecting async silent failures