Streak-3 — Elite Interview Differentiator Track

Purpose: Make students' profiles visibly stronger than standard campus preparation by solving **rare, high-impact, hard interview problems** that demonstrate depth and advanced reasoning.

Phase 1 — Advanced Mathematical & Bit Reasoning

Focus

- Bitmask DP exposure
- Mathematical reduction problems
- Observation-heavy complexity reduction
- Proof-based implementation problems

Outcome

Students develop strong **analytical reduction thinking** used in hard interview questions.

Phase 2 — High-Impact Counting & Hash Transformations

Focus

- Multi-map hashing
- Advanced prefix-hash transformations
- Pair/triple frequency transformations
- Combinatorial counting optimizations

Outcome

Students solve **complex counting problems efficiently** using advanced hashing models.

Phase 3 — Advanced Algorithmic Optimization Problems

Focus

- Binary search on answer (hard variants)
- Multi-constraint greedy optimization
- Multi-pointer optimization problems
- Hard sliding window reasoning

Outcome

Students become confident handling **multi-constraint optimization problems**.

Phase 4 — Advanced Data Structure Design & Hybrid Problems

Focus

- Custom data structure design problems
- Heap + greedy hybrids
- Stack/queue hybrid design problems
- Multi-structure interaction problems

Outcome

Students demonstrate **data-structure engineering ability**, a key differentiator in interviews.

Phase 5 — Deep Tree & Graph Interview Problems

Focus

- Advanced DFS/BFS state compression
- Union-Find advanced variants
- Graph connectivity with constraints
- Tree rerooting and structural transformations

Outcome

Students handle **complex structural recursion and graph reasoning** confidently.

Phase 6 — Elite Algorithmic Mastery (Hard Interview Set)

Focus

- Hard DP pattern synthesis
- Backtracking with heavy pruning
- Advanced shortest-path variants
- Advanced string automata / rolling-hash problems
- Multi-concept integrated problems (DP + Graph, Greedy + Heap, etc.)

Outcome

Students reach **elite interview readiness**, capable of solving problems rarely attempted by average candidates.