# SQL + JavaScript Mastery Roadmap (6 Months)

## 📌 SQL Roadmap

### Phase 1: Basics (Day 1–20)

* **Topics:** SELECT, WHERE, ORDER BY, Aggregates, Joins, Subqueries
* **Resources:**
  + [Mode SQL Tutorial](https://mode.com/sql-tutorial/)
  + [SQL Joins Visual Guide](https://sql-joins.leopard.in.ua/)
  + [LeetCode Database](https://leetcode.com/problemset/database/)

### Phase 2: Advanced SQL (Day 21–40)

* **Topics:** Window Functions, CTEs, Views, Transactions, Triggers
* **Resources:**
  + [Mode Window Functions](https://mode.com/sql-tutorial/sql-window-functions/)
  + [PostgreSQL CTE Docs](https://www.postgresql.org/docs/current/queries-with.html)

### Phase 3: Optimization (Day 41–60)

* **Topics:** Indexes, Execution Plans, Join Algorithms, Query Optimization
* **Resources:**
  + [Use the Index, Luke!](https://use-the-index-luke.com/)
  + [Stanford CS145](http://web.stanford.edu/class/cs145/)
  + [Postgres Explain Visualizer](https://explain.depesz.com/)

### Phase 4: Internals (Day 61–90)

* **Topics:** Execution Lifecycle, Storage Engines, WAL, MVCC, Distributed SQL
* **Resources:**
  + [CMU DB Course](https://www.youtube.com/playlist?list=PLSE8ODhjZXjbohkNBWQs_otTrBTrjyohi)
  + [Postgres MVCC Docs](https://www.postgresql.org/docs/current/mvcc.html)
  + [Modern SQL Tutorial](https://modern-sql.com/)

## 📌 JavaScript Roadmap

### Phase 1: Fundamentals (Day 1–30)

* **Topics:** Variables, Functions, Scope, Prototypes, DOM, Events
* **Resources:**
  + [Eloquent JavaScript](https://eloquentjavascript.net/)
  + [MDN JS Guide](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Guide)

### Phase 2: Advanced JS (Day 31–90)

* **Topics:** Closures, Execution Context, Event Loop, Async/Await, Proxies
* **Resources:**
  + [JavaScript.info](https://javascript.info/)
  + [You Don’t Know JS (Book)](https://github.com/getify/You-Dont-Know-JS)

### Phase 3: JS Internals (Day 91–180)

* **Topics:** V8 Engine, Memory Management, AST, JIT, Browser & Node.js Internals
* **Resources:**
  + [V8 Blog](https://v8.dev/blog)
  + [Event Loop Explained (Jake Archibald)](https://www.youtube.com/watch?v=cCOL7MC4Pl0)
  + [Node.js Event Loop Docs](https://nodejs.org/en/docs/guides/event-loop-timers-and-nexttick/)

✅ Use this roadmap to track daily progress (you can tick off completed topics and add notes as you go).