## ✅ Punishment Rule

If you miss a day:  
**Punishment Task:** Solve 2 extra DSA problems + Write a blog post summarizing yesterday’s missed topic.

## 🧠 Phase 1: Strong CS Foundations (Days 1–30)

| **Day** | **Topic** |
| --- | --- |
| 1 | Time & Space Complexity |
| 2 | Arrays: Basics + Problems |
| 3 | Strings: Basics + Problems |
| 4 | Recursion: Concepts |
| 5 | Recursion: Problems |
| 6 | Searching Algorithms |
| 7 | Sorting Algorithms |
| 8 | Linked Lists |
| 9 | Stacks and Queues |
| 10 | Trees |
| 11 | Binary Trees & BSTs |
| 12 | Graphs |
| 13 | Graph Algorithms (BFS, DFS) |
| 14 | Hashing |
| 15 | Dynamic Programming Basics |
| 16 | OS: Processes, Threads |
| 17 | OS: Scheduling Algorithms |
| 18 | OS: Memory Management |
| 19 | OS: Deadlock + Virtual Memory |
| 20 | DBMS: Relational Models |
| 21 | DBMS: Normalization & SQL Joins |
| 22 | DBMS: Transactions, Indexes |
| 23 | DBMS: ER Diagrams + Query Practice |
| 24 | CN: OSI Model |
| 25 | CN: TCP/IP, Routing, DNS |
| 26 | CN: HTTP, FTP, Networking Commands |
| 27 | CN: Protocols + Practical Tools |
| 28 | SE: SDLC, Agile, Waterfall |
| 29 | SE: UML, Requirement Analysis |
| 30 | SE: Design Patterns Overview |

## ⚙️ Phase 2: Competitive + Low-Level Coding (Days 31–60)

| **Day** | **Topic** |
| --- | --- |
| 31 | C++ Basics: Syntax, Variables |
| 32 | C++: Functions, Scope, Recursion |
| 33 | C++: Arrays, Vectors |
| 34 | C++: Pointers |
| 35 | C++: Memory Management |
| 36 | C++: OOP Basics |
| 37 | C++: Inheritance, Polymorphism |
| 38 | STL Containers |
| 39 | STL Algorithms |
| 40 | CP: Greedy Algorithms |
| 41 | CP: Backtracking |
| 42 | CP: Two Pointers, Sliding Window |
| 43 | CP: Binary Search on Answer |
| 44 | CP: Graph Problems |
| 45 | CP: Dynamic Programming |
| 46 | CP: Bit Manipulation |
| 47 | CP: Segment Trees |
| 48 | CP: Fenwick Trees |
| 49 | CP: Practice Contest |
| 50 | CP: Practice Contest |
| 51 | CP: Codeforces A/B Problems |
| 52 | CP: Codeforces C Problems |
| 53 | CP: CodeChef Starters |
| 54 | CP: Leetcode Biweekly |
| 55 | CP: Practice Problems |
| 56 | CP: Weekly Contest Review |
| 57 | CP: Practice Contest |
| 58 | CP: Contest Analysis |
| 59 | CP: Solve Missed Problems |
| 60 | CP: Summary + Revision |

## 💻 Phase 3: Full Stack Development (Days 61–120)

| **Day** | **Topic** |
| --- | --- |
| 61 | HTML Basics |
| 62 | CSS Basics |
| 63 | CSS Flexbox & Grid |
| 64 | JS Basics: Variables, Loops |
| 65 | JS: Functions, Scope |
| 66 | JS: Arrays & Objects |
| 67 | JS: DOM Manipulation |
| 68 | JS: Events, Forms |
| 69 | JS: Async/Await, Fetch API |
| 70 | JS: ES6+, Callbacks, Promises |
| 71 | React Basics |
| 72 | React Hooks (useState, useEffect) |
| 73 | React Routing |
| 74 | React Forms + Validation |
| 75 | React Context API |
| 76 | Project: Todo App |
| 77 | Project: Blog App |
| 78 | Node.js Basics |
| 79 | Express.js Basics |
| 80 | MongoDB Basics |
| 81 | Mongoose ODM |
| 82 | Authentication (JWT, bcrypt) |
| 83 | RESTful APIs |
| 84 | Project: Auth System |
| 85 | Project: Blog Backend |
| 86 | CORS, Error Handling |
| 87 | File Upload, Multer |
| 88 | Email & Notification APIs |
| 89 | Pagination & Filtering |
| 90 | Fullstack: Connect Front + Back |
| 91 | Fullstack Project Setup |
| 92–120 | Build a Capstone Full Stack App |

## 🛠️ Phase 4: DevOps Engineering (Days 121–180)

| **Day** | **Topic** |
| --- | --- |
| 121 | Git & GitHub Basics |
| 122 | Git: Branching & Merging |
| 123 | Git: Conflict Resolution |
| 124 | Linux CLI Basics |
| 125 | Bash Scripting |
| 126 | Docker: Basics |
| 127 | Docker: Images, Containers |
| 128 | Docker: Volumes, Networking |
| 129 | Docker Compose |
| 130 | Kubernetes: Architecture |
| 131 | K8s: Pods, Deployments |
| 132 | K8s: Services, Ingress |
| 133 | K8s: ConfigMaps, Secrets |
| 134 | K8s: Helm Basics |
| 135 | Terraform: Basics |
| 136 | Terraform: AWS Integration |
| 137 | Terraform: Modules |
| 138 | AWS: EC2, S3 |
| 139 | AWS: IAM, RDS |
| 140 | AWS: Lambda, CloudWatch |
| 141 | CI/CD Basics |
| 142 | GitHub Actions |
| 143 | Jenkins Overview |
| 144 | Docker + Jenkins Pipeline |
| 145 | Kubernetes Deployment |
| 146–180 | DevOps Capstone Project with CI/CD Pipeline |

## 🚀 Phase 5: Projects + Open Source (Days 181–240)

| **Day** | **Topic** |
| --- | --- |
| 181–210 | Build 3 Major Capstone Projects |
| 211–220 | Refactor + Write Tests |
| 221–230 | Deploy All Projects (Netlify, Vercel, AWS) |
| 231–235 | Create GitHub Repositories with README |
| 236–240 | Contribute to Open Source (PRs + Issues) |

## 🎯 Phase 6: Interview + Real World Prep (Days 241–300)

| **Day** | **Topic** |
| --- | --- |
| 241–260 | DSA Revise + Leetcode Daily |
| 261–270 | System Design: Basics to Advanced |
| 271–280 | Resume, LinkedIn, GitHub Optimization |
| 281–290 | Mock Interviews, HR Rounds |
| 291–295 | Participate in Hiring Challenges |
| 296–300 | Apply to Jobs + Reflect & Improve |

Would you like me to create a downloadable version (PDF/Notion) or generate this into a Trello/Google Sheet for tracking?