

Codility Yellow Belt (Python) – Detailed Training Agenda

Program Duration: 4 Weeks

Session Frequency: 1 Session per Week

Session Duration: 2.5 Hours

Week 1: Python Readiness & Codility Foundation

Objective: Enable participants to start coding confidently and understand the assessment format

Agenda (2.5 Hours):

- **Introduction & Program Overview (10 mins)**
 - Codility Yellow Belt structure
 - Passing criteria (67%, 120 mins)
- **Python Essentials Refresher (50 mins)**
 - Lists, Dictionaries, Sets
 - Loops & Conditionals
 - Functions & basic syntax shortcuts
- **Time Complexity (Practical View) (20 mins)**
 - What is $O(n)$, $O(n^2)$ (only intuitive understanding)
- **Codility Problem Walkthrough (Live Coding) (30 mins)**
 - Solve 1 easy problem step-by-step
- **Guided Hands-on Practice (30 mins)**
 - Participants solve 1–2 problems
- **Wrap-up + Assignment Brief (10 mins)**

Post-Session Assignment:

- 5 Easy problems (Codility style)
 - 1 mini mock (optional)
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Week 2: Core Problem-Solving Patterns

Objective: Build strong foundation in high-frequency patterns

Agenda (2.5 Hours):

- **Recap + Assignment Discussion (15 mins)**
- **Arrays & String Manipulation (30 mins)**
 - Common tricks & pitfalls
- **Hashing Techniques (35 mins)**
 - Frequency count, lookup optimization
- **Two Pointer Technique (30 mins)**
- **Live Problem Solving (Trainer-led) (25 mins)**
 - 2 problems (easy → medium)
- **Participant Practice (30 mins)**
 - 1–2 timed problems
- **Wrap-up + Assignment (15 mins)**

Post-Session Assignment:

- 6–8 problems (mixed difficulty)
 - 1 timed practice set
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Week 3: Intermediate Patterns + Mock Simulation

Objective: Prepare participants for medium-level problem solving under time pressure

Agenda (2.5 Hours):

- **Recap + Key Challenges Discussion (20 mins)**
- **Sliding Window Technique (30 mins)**
- **Stack Basics (25 mins)**
- **Intro to Trees (Concept + Use Case Only) (20 mins)**
- **Live Problem Solving (Trainer-led) (25 mins)**
- **Mini Mock Simulation (Timed) (40 mins)**
 - 1–2 problems under time constraint
- **Discussion of Solutions (10 mins)**

Post-Session Assignment:

- 6–8 medium-level problems
- 1 Full-length mock (120 mins)

Week 4: Final Readiness & Exam Strategy

Objective: Ensure participants are fully prepared to clear the assessment

Agenda (2.5 Hours):

- **Mock Performance Review (30 mins)**
 - Common mistakes
 - Improvement areas
- **Exam Strategy (30 mins)**
 - Which question to attempt first
 - Time allocation strategy
 - Handling stuck scenarios
- **Edge Case Handling & Optimization (30 mins)**
- **Full Problem Walkthrough (30 mins)**
 - Medium-level Codility problem
- **Participant Timed Practice (20 mins)**
- **Final Q&A + Readiness Checklist (10 mins)**

Practice Plan Summary

Week Practice Load

Week 1 5 Problems

Week 2 6–8 Problems

Week 3 6–8 Problems + 1 Mock

Week 4 2 Full Mocks

Total Learning Effort

- Instructor-led: **10 Hours**
- Self-practice: **15–20 Hours**
- Total effort: **~25–30 Hours**

Key Note

Given the fast-track nature of the program, consistent practice outside sessions will be critical to achieving the desired **100% pass rate**.