

🌟 6-Month Roadmap: QA + Project Management + Basic Automation

📌 Month 1 — Foundations of QA & Software Development

1. QA Basics

- What is QA vs QC vs Testing
- SDLC (Software Development Life Cycle)
- STLC (Software Testing Life Cycle)
- Agile vs Waterfall
- Types of testing (functional, non-functional, smoke, sanity, regression)

2. Documentation Skills

- Test case writing
- Test scenario writing
- Bug/defect reporting (Jira, Trello, ClickUp)

3. Tools

- Jira basics: issue types, boards
- Test management: TestRail / Zephyr
- Requirements analysis basics

Outcome

- ✓ You understand how software works and how QA fits into development.
 - ✓ You can write test cases and create bug reports.
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📌 Month 2 — Manual Testing Deep Dive + Project Management Basics

1. Manual Test Execution

- Web testing (UI, forms, links, validation)
- Mobile app testing
- Cross-browser testing

- Regression testing methods

2. Project Management Essentials

- Introduction to PM
- Roles & responsibilities of PM
- Project lifecycle: Initiation → Planning → Execution → Monitoring → Closure
- Creating project documentation:
 - Requirements document
 - Project scope
 - Timeline & Work Breakdown Structure (WBS)

3. Tools

- PM Tools: Notion, Trello, ClickUp, Asana
- Creating project plans & sprint plans
- Risk management introduction

Outcome

- ✓ You become comfortable with complete manual testing & PM basics.
- ✓ You can manage small tasks in a project.

Month 3 — API Testing + Test Planning + PM Skills

1. API Testing (very important)

- What is API?
- HTTP methods: GET, POST, PUT, DELETE
- Using Postman:
 - Sending requests
 - Testing status codes
 - Body & headers
 - Writing basic tests in Postman using JavaScript snippets

2. QA Process Integration

- Creating test plans
- Understanding entry/exit criteria
- Traceability matrix
- Test coverage techniques

3. Project Management Growth

- Sprint planning
- Backlog grooming
- Daily standups
- Project reporting
- Stakeholder communication
- Writing good documentation

Outcome

- ✓ You can test APIs confidently.
- ✓ You understand project flow in Agile teams.

Month 4 — Automation Basics (Selenium/Python or Cypress)

Choose one language (recommended: **Python** or **JavaScript**).

1. Programming Basics

- Variables
- Conditions
- Loops
- Functions
- OOP basics (class, object) — only the simple part
- File handling

2. Automation Basics

- Introduction to automation testing
- What is Selenium?
- Writing a first automated test
- Locators: xpath, css selector, id, name
- Opening browser & clicking elements
- Simple login automation test

Outcome

- ✓ You can write very simple UI automation scripts.
 - ✓ You understand the automation workflow.
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Month 5 — Intermediate QA + PM Tools + Strong Automation Foundation

1. Automation Improvement

- Waits (implicit, explicit)
- Page Object Model (simple level)
- Handling alerts, frames, dropdowns
- Assertions
- Screenshots on failure

2. QA Skills

- Performance testing basics (JMeter overview)
- Security testing basics
- Test data creation
- Understanding CI/CD conceptually (no need to do hands-on yet)

3. Project Management Skills

- Risk management real scenarios
- Monitoring & Reporting
- Using Gantt Chart

- Using Jira advanced features
- Resource planning basics

Outcome

- ✓ You can automate small modules.
 - ✓ You can manage tasks and risks in an actual project.
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✦ Month 6 — Capstone Projects + Job Preparation

1. QA Capstone Project

- Complete testing of a real website/app
- Prepare:
 - Test plan
 - Test scenarios
 - Test cases
 - Bug reports
 - API tests
 - Automation scripts

2. Project Management Capstone

Build a PM case study:

- Define project requirements
- Create scope
- Create timeline (WBS, Gantt)
- Identify risks
- Create status reports & dashboards

3. Interview & Job Preparation

- Prepare QA interview questions
- Automation interview basics

- PM interview basics
- Create resume showcasing QA + PM + Automation
- Create a GitHub portfolio of automation scripts

Outcome

- ✓ Job-ready with QA + PM + basic automation combination.
- ✓ Have projects to show employers.

 **Summary Timeline (Quick View)**

Month	QA Skills	PM Skills	Automation
1	QA basics, test cases, bug reporting	—	—
2	Manual deep dive	PM basics	—
3	API testing, test plans	Agile, sprint planning	—
4	—	—	Programming + Selenium basics
5	Intermediate QA	Advanced PM	Intermediate automation
6	QA + PM project	Project planning	Build automation project