⬚ Beginner-Level Projects (1–20) – *Foundational tools to automate repetitive engineering tasks*

1. **File Movement Automation (e.g. logs to archive)**
2. **Scheduled File Downloader**
3. **Daily Build Notifier**
4. **Bulk File Permission Modifier**
5. **Log Rotation Script**
6. **Simple Task Scheduler GUI**
7. **Ping Sweep Tool (IP checker)**
8. **Disk Usage Monitor**
9. **Service Restart Utility**
10. **Backup Configurator (create ZIPs of directories)**
11. **Basic Email Sender (SMTP automation)**
12. **Excel to CSV Batch Converter**
13. **Network Availability Checker**
14. **Simple Registry Cleaner**
15. **Clipboard Monitor + Auto-save Tool**
16. **Script Executor (run bat/ps1 files via GUI)**
17. **Test File Generator (e.g., dummy logs or data sets)**
18. **Folder Watcher (detect & log changes)**
19. **Time Tracker for Engineering Tasks**
20. **System Info Exporter (hardware, software info)**

⬚ Intermediate-Level Projects (21–40) – *QA/Test automation, workflow orchestration, RPA*

21. **Automated UI Testing Framework using Selenium**
22. **REST API Testing Tool (GET/POST + reporting)**
23. **Integration Test Runner (with NUnit/XUnit)**
24. **Basic RPA Bot for Web Form Filling**
25. **CI/CD Build Trigger App (e.g., trigger Jenkins builds)**
26. **Automated Excel Report Generator**
27. **Screenshot Comparison Tool (for UI testing)**
28. **Automated Test Result Emailer**
29. **Database Change Monitor**
30. **Windows Service Auto-Restarter**
31. **Script to Purge Old Backups**
32. **App Installation Validator**
33. **Slack or Teams Bot for Deployment Alerts**
34. **API Health Monitor + Logging**
35. **Automated Data Export to SharePoint**
36. **Uptime Monitor with SMS/Email Notification**
37. **Remote Server Log Collector**

38. **Application Log Analyzer with Filters**
39. **Browser Extension Tester (scriptable)**
40. **Basic Load Test Tool using HTTPClient**

⬤ **Advanced-Level Projects (41–60)** – *DevOps, infrastructure automation, real-world systems*

41. **Custom CI/CD Pipeline Orchestrator (Git + Docker + Deploy)**
42. **Automated Security Scan Reporter (e.g., OWASP checks)**
43. **Infrastructure Provisioning with C# + Azure SDK**
44. **Cloud Resource Scheduler (stop/start VMs on schedule)**
45. **Configuration Drift Detector (compare expected vs actual settings)**
46. **Automated API Documentation Generator**
47. **Server Patch Management Dashboard**
48. **Anomaly Detection on Server Logs (ML.NET + Automation)**
49. **Dynamic Test Suite Generator**
50. **Multi-Environment Configurator Tool**
51. **Git Commit Triggered Build + Notify System**
52. **Deployment Validator (check service health post-deploy)**
53. **Centralized Event Logger (listen to system events via WMI)**
54. **Resource Usage Profiler (CPU, RAM, Disk I/O per app)**
55. **Test Data Generator with Faker.NET**
56. **Live Log Viewer with WebSocket Streaming**
57. **Cross-Browser Testing Bot**
58. **Telemetry Collector + Grafana Integration**
59. **Compliance Audit Checklist Automation Tool**
60. **Azure DevOps Extension for Test Management**