



DevOps Automation Checklist

25 Tasks to Automate Today



Save 5+ hours per developer per week



How to Use This Checklist

HIGH

Do first

MEDIUM

Do soon

LOW

Nice to have

EASY

< 1 day

MEDIUM

1-3 days

HARD

1+ weeks



HIGH PRIORITY (Start Here)

1

Automated Testing Setup

HIGH

MEDIUM



5 hrs/week saved

What to automate:

- Unit tests run on every commit
- Integration tests run before merge
- E2E tests run on staging deployments
- Test coverage reports automatically generated

Quick win: Set up Jest/Vitest with GitHub Actions

ROI: Catches bugs early, saves debugging time

2 CI/CD Pipeline Automation

HIGH

HARD

 8 hrs/week saved

What to automate:

- Automatic builds on push
- Automated deployments to staging
- Production deployments with approval gates
- Rollback automation

Quick win: GitHub Actions or GitLab CI/CD

ROI: Eliminates manual deployment errors, saves hours

3 Code Quality Checks

HIGH

EASY

 3 hrs/week saved

What to automate:

- Linting on every commit (ESLint, Prettier)
- Formatting checks before merge
- Type checking (TypeScript)
- Code complexity analysis

Quick win: Pre-commit hooks with Husky

ROI: Consistent code quality, fewer code reviews

4 Environment Setup Automation

HIGH

MEDIUM

 4 hrs/week saved

What to automate:

- One-command project setup
- Docker Compose for local dev
- Environment variable validation
- Dependency installation scripts

Quick win: Create setup.sh script

ROI: Faster onboarding, fewer "works on my machine" issues

5 Dependency Management

HIGH

EASY

 2 hrs/week saved

What to automate:

- Automated dependency updates (Dependabot, Renovate)
- Security vulnerability scanning
- License compliance checks
- Outdated package alerts

Quick win: Enable Dependabot on GitHub

ROI: Keeps dependencies secure and up-to-date



MEDIUM PRIORITY (Do Soon)

6

Boilerplate Code Generation

MEDIUM

MEDIUM

 6 hrs/week saved

What to automate:

- API endpoint scaffolding
- CRUD operation templates
- Test file generation
- Component templates

Quick win: Use Plop.js or custom generators

ROI: Consistent code structure, faster development

7

Database Migration Automation

MEDIUM

MEDIUM

 3 hrs/week saved

What to automate:

- Migration scripts run automatically
- Rollback procedures

→ Database seeding for dev

→ Migration testing

Quick win: Use migration tools (Knex, TypeORM, Alembic)

ROI: Safer database changes, fewer production issues

8 Documentation Generation

MEDIUM

EASY

🕒 2 hrs/week saved

What to automate:

→ API docs from code comments (Swagger/OpenAPI)

→ README generation

→ Changelog automation

→ Architecture diagrams

Quick win: JSDoc + Swagger for APIs

ROI: Always up-to-date docs, less maintenance

9 Git Workflow Automation

MEDIUM

EASY

🕒 2 hrs/week saved

What to automate:

→ Branch naming conventions

→ Commit message validation

→ PR template automation

→ Merge conflict detection

Quick win: Git hooks + branch protection rules

ROI: Cleaner git history, easier code reviews

10 Logging and Monitoring Setup

MEDIUM

MEDIUM

🕒 4 hrs/week saved

What to automate:

→ Structured logging

→ Error tracking (Sentry, Rollbar)

→ Performance monitoring

→ Alert automation

Quick win: Set up Sentry for error tracking

ROI: Faster debugging, proactive issue detection

11 Security Scanning

MEDIUM

EASY

🕒 3 hrs/week saved

What to automate:

→ SAST (Static Application Security Testing)

→ Dependency vulnerability scanning

- Secret detection (API keys, passwords)
- Security policy enforcement

Quick win: Snyk or GitHub Advanced Security

ROI: Prevents security breaches, compliance

12 Performance Testing

MEDIUM

HARD

🕒 4 hrs/week saved

What to automate:

- Load testing on deployments
- Performance regression detection
- Lighthouse CI for web apps
- Database query optimization alerts

Quick win: Lighthouse CI in GitHub Actions

ROI: Better user experience, fewer performance issues

13 Backup Automation

MEDIUM

EASY

🕒 2 hrs/week saved

What to automate:

- Database backups (daily/hourly)
- File backup automation

→ Backup verification

→ Restore testing

Quick win: Cron jobs or cloud backup services

ROI: Data safety, disaster recovery

14 Release Notes Automation

MEDIUM

EASY

🕒 1 hr/week saved

What to automate:

→ Generate release notes from commits

→ Version bumping

→ Changelog updates

→ Release announcements

Quick win: Semantic Release or Release Drafter

ROI: Consistent releases, better communication

15 Feature Flag Management

MEDIUM

MEDIUM

🕒 3 hrs/week saved

What to automate:

→ Feature flag configuration

→ Gradual rollouts

→ Feature toggle management

→ A/B testing automation

Quick win: LaunchDarkly or custom flag system

ROI: Safer deployments, easier feature management



LOW PRIORITY (Nice to Have)

16 Cost Monitoring and Optimization

LOW

MEDIUM

 2 hrs/week saved

What to automate:

→ Cloud cost tracking and alerts

→ Resource usage optimization

→ Unused resource cleanup

→ Cost allocation reports

Quick win: AWS Cost Explorer or CloudHealth

ROI: Reduces cloud spending, better budget control

17 Incident Response Automation

LOW

HARD

 3 hrs/week saved

What to automate:

- Automatic incident detection
- On-call rotation management
- Post-mortem report generation
- Incident escalation workflows

Quick win: PagerDuty or Opsgenie integration

ROI: Faster incident resolution, better reliability

18 Compliance and Audit Automation

LOW

MEDIUM

 2 hrs/week saved

What to automate:

- Compliance checklist tracking
- Audit log generation
- Policy compliance checks
- Regulatory reporting

Quick win: Automated compliance dashboards

ROI: Easier audits, regulatory compliance

19 Infrastructure as Code

LOW

HARD

 5 hrs/week saved

What to automate:

- Infrastructure provisioning (Terraform, CloudFormation)
- Infrastructure changes via code
- Environment replication
- Infrastructure testing

Quick win: Start with Terraform for one environment

ROI: Consistent infrastructure, faster provisioning

20 Container Orchestration

LOW

HARD

 4 hrs/week saved

What to automate:

- Container deployment automation
- Auto-scaling configuration
- Container health checks
- Service discovery

Quick win: Kubernetes or Docker Swarm setup

ROI: Better resource utilization, easier scaling

21 API Versioning Automation

LOW

MEDIUM

 2 hrs/week saved

What to automate:

- API version detection
- Deprecation warnings
- Version migration guides
- Breaking change detection

Quick win: API versioning middleware

ROI: Smoother API evolution, better compatibility

22 Data Pipeline Automation

LOW

HARD

 4 hrs/week saved

What to automate:

- ETL pipeline automation
- Data transformation workflows
- Data quality checks
- Data pipeline monitoring

Quick win: Apache Airflow or Prefect

ROI: Reliable data processing, less manual work

23 Certificate and SSL Management

LOW

EASY

 1 hr/week saved

What to automate:

- SSL certificate renewal
- Certificate expiration alerts
- Auto-renewal workflows
- Certificate deployment

Quick win: Let's Encrypt with certbot

ROI: No expired certificates, better security

24 Load Testing Automation

LOW

MEDIUM

 3 hrs/week saved

What to automate:

- Scheduled load tests
- Performance baseline tracking
- Capacity planning reports
- Bottleneck identification

Quick win: k6 or Artillery.io in CI/CD

ROI: Proactive performance optimization

25 Team Onboarding Automation

LOW

EASY

 2 hrs/week saved

What to automate:

- New team member setup scripts
- Access provisioning automation
- Onboarding checklist tracking
- Welcome email sequences

Quick win: Automated setup script + checklist

ROI: Faster onboarding, consistent experience

Summary

High Priority (5 tasks)

Automated Testing Setup
CI/CD Pipeline Automation
Code Quality Checks
Environment Setup Automation
Dependency Management

Total: 22+ hrs/week saved

Medium Priority (10 tasks)

Boilerplate Code Generation
Database Migration Automation
Documentation Generation
Git Workflow Automation
Logging and Monitoring
Security Scanning
Performance Testing
Backup Automation
Release Notes Automation
Feature Flag Management

Total: 30+ hrs/week saved

Low Priority (10 tasks)

Cost Monitoring

Incident Response Automation

Compliance and Audit

Infrastructure as Code

Container Orchestration

API Versioning

Data Pipeline Automation

Certificate Management

Load Testing Automation

Team Onboarding Automation

Total: 25+ hrs/week saved

Getting Started

Start with the **High Priority** tasks—they'll give you the biggest impact. Focus on one task at a time, and don't try to automate everything at once. Each automation builds on the others, so completing them in order will make the later ones easier.

Remember: The goal isn't to automate everything immediately. Pick the tasks that will save your team the most time based on your current pain points. Even automating just 5-10 of these tasks can save 20+ hours per developer per week.

Ready to Automate Your DevOps Workflow?

I can help you implement these automations for your team. Book a free consultation to see how my DevOps Productivity Suite can save your team 5+ hours per developer per week.

Book Your Free Consultation →

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