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# SOK Development Guidelines

*A handbook created by developers for developers to help engineering teams to align their software practices and share know-how.*

Development Community



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This is a high-level document containing a collection of best practices, commonalities between projects and values proven to be practical. Team's should follow these guidelines when implementing their software.

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The key words “MUST”, “MUST NOT”, “REQUIRED”, “SHALL”, “SHALL NOT”, “SHOULD”, “SHOULD NOT”, “RECOMMENDED”, “MAY”, and “OPTIONAL” in this document are to be interpreted as described in RFC 2119.

## Codebase

### Version Control

- MUST use version control
- SHOULD use Git
- MUST use `master` branch as a base for development
- MUST have documented version control flow

### Branching

- MUST fork feature (and release) branches from `master` branch
- SHOULD protect default branch from pushes

### Mobile development

- SHOULD use fast-forward merges only from feature branch to `master` branch
- SHOULD implement bug fixes to feature branch and cherry picked them to `master` and potential release branch
- RECOMMENDED to squash feature branches before merging to `master` branch
- MUST preserve release tags forever

### Coding Standards

- MUST agree on a coding standard inside a team # Release Management
- SHOULD release to production from branch that's used for base of development
- MUST have identifiable releases
- RECOMMENDED to release smaller changes often over larger merges
- MUST have (at least) following stages in pipeline (in recommended order): install, test, scan, build, deploy, verify, release

## Mobile Development

- MUST use semantic versioning for releases (tags)

## Environments

### Data

### Mobile Development

- SHOULD preserve all release artefacts forever

### Design

- SHOULD name AWS profiles after account-aliases
- MUST have production separated from testing environments

## Architecture

### Infrastructure

- SHOULD use semantic versioned Docker images for building releases
- MUST have centralised logging
- SHOULD collect logs from all deployed environments

### Security

- MUST run automated vulnerability checks for code
- SHOULD run automated static code analysis for code quality

## Operations

### Monitoring

- MUST have monitoring
- MUST have alarms

## Guidance

- MUST have process how to handle security notifications

## Documentation

- SHOULD use README.md as a central information document inside code repository
- SHOULD document all exceptions with reasoning from Development Guidelines in project's README.md
- MUST have a documented disaster recovery plan