"In the modern era, software is commonly delivered as a service: called web apps, or software-as-a-service. The twelve-factor app is a methodology for building software-as-a-service apps. . ." — https://12factor.net/

I. Codebase

**One codebase tracked in revision control, many deploys**

Tiki Wiki CMS Groupware ("Tiki") is tracked in two version control systems: Git and SVN (deprecated), currently Git is the default.

Tiki uses the same codebase with different releases. A major branch is done only once per major version (4.x, 5.x, 6.x, etc.) about 4-6 weeks before the planned official release of x.0. For minor versions, the work is done in the current branch.

II. Dependencies

**Explicitly declare and isolate dependencies**

Tiki uses Composer to manage the dependencies. All dependencies are declared in `vendor_bundled/composer.json` and to extend some Tiki features it is possible to install via Packages using the UI, these additional dependencies are also managed by composer.

III. Config

**Store config in the environment**

Tiki does not store config as constants in the code and uses different environment files. The `db/local.php` file stores some config settings but, it’s also possible to extend configurations between environments, see System Configuration for more information.

IV. Backing services

**Treat backing services as attached resources**

Tiki makes no distinction between local and third-party services. Tiki is able to swap out, for instance, SMTP service without code changes and local MySQL database by a third party using configuration files.

V. Build, release, run

**Strictly separate build and run stages**

Tiki strictly separates build and run stages storing new releases as `<number>.x`, for example, 22.x.
VI. Processes

**Execute the app as one or more stateless processes**

Tiki has data that needs to be persistent; however, that data is stored in a stateful backing service like database, Memcached or expiring sessions.

VII. Port binding

**Export services via port binding**

Because Tiki uses PHP, probably the code is being executed using PHP-FPM which exposes a binding port to communicate with Apache/NginX.

VIII. Concurrency

**Scale out via the process model**

Tiki does not rely on daemonize processes or write PID files, in fact it uses system processes to handle the requests and background tasks.

IX. Disposability

**Maximize robustness with fast startup and graceful shutdown**

For a web application like Tiki, this factor is achieved automatically, since PHP-FPM handles system signals like SIGTERM or QUIT out-of-the-box closing existing connections and refusing newer ones when the process stops.

X. Dev/prod parity

**Keep development, staging, and production as similar as possible**

Tiki uses continuous deployment, making the code being pushed and the production code almost identical and available to use by other developers. See: [Sync Dev-Prod Servers](#)

XI. Logs

**Treat logs as event streams**

Tiki does not have a single log file that can be used as a stream, but depending on some tasks log files are created (like index rebuild) or other operations/actions are logged in the database as action logs, used to track user activity on the basis of a single user or multiple users, groups or categories.
XII. Admin processes

**Run admin/management tasks as one-off processes**

Tiki offers administrative and maintenance tasks (see `console.php`), such as:

- Running database migrations
- Running a console command
- Running one-time scripts

The admin processes run in an identical environment as the regular long-running processes of the app, and they run against a release, using the same codebase and config as any process run against that release. The admin code is included in the version control system.