# FLEX - Twelve Factor App

#### Simon Härer

Created: 2024-06-10 Mon 07:48



#### https://12factor.net/

- 1. **Codebase** One codebase tracked in revision control, many deploys. Every app has its own repo, two apps in one repo violates the factor.
- 2. **Dependencies** Explicitly declare and isolate dependencies, no dependencies from the OS influence the build. There's one deterministic build command.
- 3. Config Store config in the environment.



- 4. **Backing services** Treat backing services as attached resources, e.g. a database can be swapped for another
- 5. **Build, release, run** Strictly separate build, release and run stages
- 6. **Processes** Execute the app as one or more stateless processes. (State resides only in DB.)



- 7. **Port binding** Export services via port binding. It is entirely self-contained and relies on runtime injection.
- 8. Concurrency Scale out via the process model
- 9. **Disposability** Maximize robustness with fast startup and graceful shutdown. An app should have low startup time.



- 10. **Dev/prod parity** Keep development, staging, and production as similar as possible
- 11. Logs Treat logs as event streams
- 12. **Admin processes** Run admin/management tasks as one-off processes



## Exercise: Twelve Factor App

Which factors are fulfilled in Erlbank? Which are not?

