

Car Rental System — Maintenance & Support

Versioning & Releases

Use Semantic Versioning (MAJOR.MINOR.PATCH). Tag releases and package a clean 'release_build' zip with only runtime files (no tests).

Data & Backward Compatibility

SQLite migrations handled via repository upgrade scripts. Avoid breaking schema changes; add new columns with defaults. Maintain readers for old data, with one-version-back support.

Testing & CI

Unit tests for services & pricing; integration tests for repository. Add GitHub Actions to run tests on PR. Use pre-commit for linting and type checks.

Logging & Monitoring

Use Python logging with rotating file handler. Log auth events, booking approvals/rejections, and errors. Keep PII out of logs.

Support Playbook

Backup DB nightly; restore drills monthly. Incident severity matrix (SEV1: data loss; SEV2: booking outage). SLA: P0 fix within 4 hours. Provide CLI '--debug' and '--db' flags for diagnostics.