

# MASTER PACK AUDIT DIBIKIN ONLINE

*Audit folder, target file, problem, solving, checkpoint, UI system, JS function map ringkas*

## MASTER AUDIT DIBIKIN ONLINE - ZIP cp-(9)

Tanggal audit: 2026-06-12 15:21 WIB

Sumber: ZIP `/mnt/data/cp-(9).zip`

### Ringkasan Eksekutif

Project ini sudah masuk kategori **platform aplikasi kompleks**, bukan lagi landing page. Struktur aktual menunjukkan pemisahan app, service, API worker, database schema, docs, Firebase rules, dan dashboard React/Vite.

Jumlah file tanpa `node\_modules/dist/.git`: **2024**

Jumlah file JS/JSX/TS/TSX utama: **165**

Jumlah file CSS utama: **5**

Jumlah file JSON/config: **819**

### Status umum versi ini

- Dashboard React + Vite sudah ada.
- Routing lengkap untuk dashboard, editor, mobile editor, billing, admin, guest, public invitation, scan, reception, photographer.
- Professional Editor sudah besar dan sangat aktif: canvas, section, object, timeline, preview, export/import, asset upload.
- Mobile Editor sudah ada dan sudah cukup serius: toolbar, bottom sheet, transform box, panel style/text/svg/asset/layer/animation.
- Firebase/Firestore service sudah dipisah di root `services/` lalu diekspor ulang di dashboard.
- Billing, feature registry, package rules, payment setting, admin events, admin users, masa aktif event sudah mulai ada.
- Worker R2 sudah ada untuk upload object ke Cloudflare R2.
- Firestore Rules sudah ada dengan role owner/support/admin, publish lock, payment lock, public RSVP, dan event child collections.

### Temuan build/check penting

Build dashboard tidak berhasil dijalankan di environment audit karena `vite` dari ZIP tidak executable dan optional native dependency Rolldown untuk Linux tidak ikut lengkap. Ini bukan bukti kode React salah, tetapi bukti **ZIP membawa node\_modules yang tidak portable**. Perintah yang aman di PC Anda nanti:

```
cd apps/dashboard
rm -rf node_modules package-lock.json
npm install
npm run build
```

Cuplikan error audit:

```
not find module '../rolldown-binding.linux-x64-gnu.node'
  Require stack:
    - /mnt/data/cp9_extract/cp-/apps/dashboard/node_modules/rolldown/dist/shared/binding-
      LLxFxuG-.mjs
      at Function._resolveFilename (node:internal/modules/cjs/loader:1401:15)
      at defaultResolveImpl (node:internal/modules/cjs/loader:1057:19)
      at resolveForCJSWithHooks (node:internal/modules/cjs/loader:1062:22)
      at Function._load (node:internal/modules/cjs/loader:1211:37)
      at TracingChannel.traceSync (node:diagnostics_channel:322:14)
      at wrapModuleLoad (node:internal/modules/cjs/loader:235:24)
      at Module.require (node:internal/modules/cjs/loader:1487:12)
      at require (node:internal/modules/helpers:135:16)
      at requireNative
(file:///mnt/data/cp9_extract/cp-/apps/dashboard/node_modules/rolldown/dist/shared/
binding-LLxFxuG-.mjs:272:12)
  at file:///mnt/data/cp9_extract/cp-/apps/dashboard/node_modules/rolldown/dist/
shared/binding-LLxFxuG-.mjs:475:18 {
    code: 'MODULE_NOT_FOUND',
    requireStack: [
      '/mnt/data/cp9_extract/cp-/apps/dashboard/node_modules/rolldown/dist/shared/
binding-LLxFxuG-.mjs'
    ]
  }
}
}
}
Node.js v22.16.0
```

### Risiko utama saat lanjut pakai AI gratis

1. AI agent bisa refactor `ProfessionalEditorPage.jsx` terlalu besar dan merusak alur editor.
2. AI agent bisa mengubah `canvasUtils.js`, `objectRegistry.js`, atau `templateSchema.js` tanpa memahami JSON schema.
3. CSS global terlalu besar; perubahan kecil bisa merusak dashboard, invitation, dan editor sekaligus.
4. Worker R2 dan Firestore Rules harus dianggap area high-risk karena menyangkut data dan upload.
5. `node\_modules` sebaiknya tidak dibawa di ZIP/commit; gunakan `npm install` dari package.json.

### Prioritas 30 hari ke depan

### Wajib distabilkan dulu

1. Build bersih di local dan Cloudflare Pages.
2. Lock struktur routes editor desktop/mobile.
3. Dokumentasikan schema editor JSON dan event payload.
4. Pastikan Firestore rules tidak membuka data private.
5. Pastikan R2 upload aman: auth, file size, folder type, content type.
6. Pisahkan CSS editor/dashboard/public supaya tidak saling tabrak.

### Jangan dikerjakan dulu kalau dana/AI terbatas

- Refactor total editor.
- Ganti state management besar-besaran.
- Menambah terlalu banyak animation preset tanpa menyelesaikan runtime/timeline.
- Membuat template puluhan sebelum satu template benar-benar matang.

## PROJECT BLUEPRINT - STRUKTUR FOLDER DAN TARGET FILE

### Root project

```
cp-/  
├─ api/                API dan worker terpisah  
├─ apps/              aplikasi frontend/panel  
├─ assets/            asset global: animation, font, icon, logo, music, template  
├─ database/          dokumen schema/ccontoh collection  
├─ docs/              dokumentasi lama/checkpoint/roadmap  
├─ firebase/          firebase.json dan firestore.rules  
├─ services/          service Firebase reusable lintas app  
└─ package.json      root package minimal
```

### Apps

```
apps/  
├─ dashboard/        aplikasi utama user/admin/editor  
├─ admin-ro/         calon panel admin terpisah  
├─ invitation-view/  calon public invitation renderer terpisah  
├─ photographer-panel/ calon panel fotografer  
├─ web-main/         calon website publik/landing  
└─ wo-panel/         calon panel WO/E0
```

**\*\*Catatan audit:\*\*** aplikasi yang paling matang adalah `apps/dashboard`. Folder app lain terlihat sebagai arah arsitektur micro-frontend/panel terpisah, tetapi untuk mode hemat sebaiknya jangan dikembangkan dulu sebelum dashboard stabil.

### Dashboard src

```
apps/dashboard/src/  
├─ components/       komponen reusable: admin, animation, editor, guest, invitation,  
support, template  
├─ data/             config animation profile  
├─ editor/           engine editor canvas/layer/template object  
├─ engine/           animation engine dan runtime premium  
├─ hooks/            responsive/performance/mobile gesture  
├─ layouts/          Desktop/Mobile/Tablet layout  
├─ lib/              billing, features, firebase adapters, r2, support  
├─ pages/            halaman route utama  
├─ routes/           router React  
├─ services/         service khusus dashboard  
├─ styles/           CSS global/editor/mobile/mvp  
├─ templates/        template registry, schema, theme, Elegant Gold  
└─ utils/            helper slug/privacy/guest link
```

### Target file high-impact

Area	Target file	Fungsi	Risiko
Router	`apps/dashboard/src/routes/router.jsx`	Semua route aplikasi	Sedang
Event form/context	`apps/dashboard/src/pages/events/editor/EventEditorContext.jsx`	Load/save/publish event	Tinggi
Desktop editor	`apps/dashboard/src/pages/events/editor/ProfessionalEditorPage.jsx`	Canvas, layer, timeline, export/import	Sangat tinggi
Mobile editor	`apps/dashboard/src/pages/editor/MobileEditorPage.jsx`	Mobile editor workspace	Tinggi
Canvas utils	`apps/dashboard/src/editor/canvas/canvasUtils.js`	Frame, snap, schema, binding, save schema	Sangat tinggi
Object registry	`apps/dashboard/src/editor/canvas/objectRegistry.js`	Jenis object dan binding lock	Tinggi
Animation registry	`apps/dashboard/src/engine/premiumAnimationRegistry.js`	Preset engine	Sedang
Animation runtime	`apps/dashboard/src/engine/premiumAnimationRuntime.js`	Runtime class/style animation	Tinggi
Billing rules	`apps/dashboard/src/lib/billing/packageRules.js`	Paket, limit, publish gate	Tinggi
Feature registry	`apps/dashboard/src/lib/features/featureRegistry.js`	Daftar fitur SaaS	Sedang
Firestore rules	`firebase/firestore.rules`	Security database	Sangat tinggi
R2 worker	`api/r2-worker/worker.js`	Upload/delete/get asset	Sangat tinggi
Global CSS	`apps/dashboard/src/styles/global.css`	UI dashboard + editor + public	Tinggi
Mobile CSS	`apps/dashboard/src/styles/mobile-editor.css`	UI mobile editor	Sedang
MVP CSS	`apps/dashboard/src/styles/ro-mvp-ui.css`	invitation/editor object CSS	Tinggi

## File yang aman diedit untuk UI kecil

- `apps/dashboard/src/components/admin/\*.jsx`
- `apps/dashboard/src/components/support/\*.jsx`
- `apps/dashboard/src/pages/admin/\*.jsx`
- `apps/dashboard/src/styles/mobile-editor.css` dengan perubahan scoped `.mobile-editor-\*`
- `apps/dashboard/src/styles/editorTheme.css` khusus mode selector/mobile transform kecil

## File yang harus pakai checkpoint khusus sebelum edit

- `ProfessionalEditorPage.jsx`
- `EventEditorContext.jsx`
- `canvasUtils.js`
- `objectRegistry.js`
- `worker.js`
- `firestore.rules`
- `packageRules.js`
- `featureAccess.js`

## Aturan solo developer

Sebelum edit file high-risk:

```
git status  
git checkout -b cpXX-nama-fitur  
npm run build
```

Setelah edit:

```
npm run build  
git diff --stat  
git add .  
git commit -m "CPXX: deskripsi singkat"  
git push origin cpXX-nama-fitur
```

# ENGINE ARCHITECTURE - DIBIKIN ONLINE

## Flow utama aplikasi

User login  
↓  
Dashboard  
↓  
Create/Edit Event  
↓  
EventEditorContext normalize form  
↓  
Professional Editor / Mobile Editor  
↓  
Canvas Section + Object Schema  
↓  
Template Renderer / Invitation Renderer  
↓  
Publish Gate: package + payment + feature access  
↓  
Public Invitation Link  
↓  
Guest RSVP / QR / Reception / Gallery

## 1. Event Engine

Target file:

- ``services/events/eventService.js``
- ``apps/dashboard/src/pages/events/editor/EventEditorContext.jsx``
- ``apps/dashboard/src/pages/events/editor/*EventPage.jsx``

Fungsi penting:

- ``createEvent``
- ``getEventById``
- ``updateEvent``
- ``publishEvent``
- ``unpublishEvent``
- ``archiveEvent``
- ``softDeleteEvent``
- ``restoreDeletedEvent``
- ``permanentlyDeleteEvent``
- ``findPublishedEventBySlug``
- ``ensureEventPreviewToken``
- ``ensureEventTeamAccess``

Problem aktual/potensi:

- Banyak field event harus tetap backward compatible: `published`, `status`, `isPublished`, `publishedAt`.
- Payment lock sudah mulai ada, tapi harus dipastikan UI publish mengikuti rules.
- Team access sudah ada, perlu dokumentasi token dan expiry.

Solusi aman:

- Jangan rename field lama.
- Tambahkan field baru dengan merge dan fallback.
- Buat helper normalisasi, jangan langsung akses object mentah di banyak halaman.

Target sukses:

- Event lama tetap terbuka.
- Event baru bisa dibuat, diedit, publish/unpublish.
- Build bersih.
- Firestore rules tidak menolak save normal.

## 2. Template Engine

Target file:

- `apps/dashboard/src/templates/templateRegistry.js`
- `apps/dashboard/src/templates/templateSchema.js`
- `apps/dashboard/src/templates/sectionSchema.js`
- `apps/dashboard/src/templates/elegant-gold/\*`

Kondisi:

- Registry template sudah ada.
- Elegant Gold adalah template utama.
- Dummy/archive template harus tetap di-hide, bukan dihapus sembarangan.

Problem:

- Kalau template terlalu berbasis JSX, sulit jadi Canva-like editor penuh.
- Harus ada JSON schema final: sections, objects/layers, animations, assets, theme, bindings.

Solusi:

- Jadikan Elegant Gold sebagai production baseline.
- Semua template baru harus lewat `templateRegistry.js`.
- Template dummy masuk `ARCHIVED\_DUMMY\_TEMPLATE\_IDS`, bukan tampil ke user.

### 3. Canvas/Layer Engine

Target file:

- `apps/dashboard/src/pages/events/editor/ProfessionalEditorPage.jsx`
- `apps/dashboard/src/editor/canvas/canvasUtils.js`
- `apps/dashboard/src/editor/canvas/objectRegistry.js`
- `apps/dashboard/src/editor/canvas/CanvasObjectRenderer.jsx`
- `apps/dashboard/src/editor/canvas/CanvasSelectionOverlay.jsx`
- `apps/dashboard/src/editor/canvas/ObjectInspectorPanel.jsx`
- `apps/dashboard/src/editor/canvas/SectionListPanel.jsx`

Flow:

```
Insert object
  → createCanvasObject / createMobileObject
  → objectRegistry menentukan type + binding lock
  → canvasUtils patch frame/style/animation
  → CanvasObjectRenderer render object
  → ro-mvp-ui.css/global.css memberi style visual
```

Function penting dari `canvasUtils`:

- `getObjectFrame`
- `patchObjectFrame`
- `snapCanvasFrame`
- `resolveBindingValue`
- `objectToStyle`

- `sectionToStyle`
- `prepareSectionsForSave`
- `buildEditorSchema`
- `validateEditorSchema`

Target sukses:

- Object bisa add, select, move, resize, lock, hide, duplicate, delete.
- Layer order/z-index konsisten.
- Save schema tidak merusak section/object lama.

## 4. Animation Engine

Target file:

- `apps/dashboard/src/engine/animationEngine.js`
- `apps/dashboard/src/engine/premiumAnimationRegistry.js`
- `apps/dashboard/src/engine/premiumAnimationRuntime.js`
- `apps/dashboard/src/templates/animationPresets.js`
- `apps/dashboard/src/components/animations/\*`

Kategori yang sudah terlihat:

- Object animation presets
- Text animation presets
- Section enter/leave/reveal/transition presets
- Luxury effect presets
- Parallax layers/speed
- Trigger presets
- Timeline phases

Problem:

- Banyak preset tidak otomatis berarti runtime sempurna.
- Harus jelas mapping: preset → schema → runtime class/style → CSS/keyframes.

Solusi:

- Setiap preset baru wajib punya: `id`, `label`, `category`, `runtime`, `css/keyframes`, `performance profile`.
- Jangan menambah 100 preset sebelum 10 preset utama stabil.

Target sukses:

- Fade/slide/zoom/float/text reveal/section reveal/luxury particles berjalan di preview dan publish.
- Mobile low-end tidak drop berat.

## 5. Mobile Gesture Engine

Target file:

- `apps/dashboard/src/hooks/useMobileGestureTransform.js`
- `apps/dashboard/src/pages/editor/MobileEditorPage.jsx`
- `apps/dashboard/src/components/editor/mobile/MobileTransformBox.jsx`
- `apps/dashboard/src/styles/mobile-editor.css`

Flow:

```

Touch canvas/object
  → useMobileGestureTransform
  → queueCanvasUpdate / flushCanvasUpdate
  → updateObjectFrameById
  → MobileTransformBox visual overlay
  → CSS .mobile-transform-box

```

Target sukses:

- Tap select object.
- Drag move object.
- Resize handle.
- Rotate handle.
- Tidak bentrok dengan scroll bottom sheet.

## 6. Billing + Feature Access Engine

Target file:

- `apps/dashboard/src/lib/billing/packageRules.js`
- `apps/dashboard/src/lib/features/featureRegistry.js`
- `apps/dashboard/src/lib/features/featureAccess.js`
- `apps/dashboard/src/lib/firebase/billingService.js`
- `apps/dashboard/src/pages/events/editor/BillingEventPage.jsx`
- `apps/dashboard/src/pages/events/editor/PublishEventPage.jsx`
- `apps/dashboard/src/pages/admin/\*Billing\*`

Target:

- Paket Basic/Premium/Exclusive.
- QRIS static.
- Bukti bayar.
- Admin approve/reject.
- Publish lock jika belum paid.
- Feature lock editor/template/gallery/QR.
- Masa aktif event.

Problem:

- Harus sinkron antara UI gate dan Firestore rules.
- User bisa melihat tombol tapi rules menolak kalau tidak sesuai.

Target sukses:

- User unpaid tidak bisa publish.
- Admin bisa approve payment.
- Setelah paid, publish sukses.
- Feature premium terkunci di editor/mobile editor.

## 7. QR + Guest + Reception Engine

Target file:

- `services/guests/guestService.js`

- `apps/dashboard/src/services/qr/qrEngine.js`
- `apps/dashboard/src/pages/guests/GuestManagerPage.jsx`
- `apps/dashboard/src/pages/reception/ReceptionPage.jsx`
- `apps/dashboard/src/pages/scan/ScanPage.jsx`
- `apps/dashboard/src/components/QrScanner.jsx`
- `apps/dashboard/src/components/QrCodeCanvas.jsx`

Target sukses:

- Guest punya token/QR unik.
- QR bisa discan reception.
- Check-in update realtime.
- Guest group/personal tetap bisa dikembangkan tanpa merusak QR personal.

## 8. Gallery + R2 Engine

Target file:

- `services/photos/photoService.js`
- `apps/dashboard/src/lib/r2/editorUploadService.js`
- `api/r2-worker/worker.js`
- `apps/dashboard/src/pages/events/EventMediaManager.jsx`
- `apps/dashboard/src/pages/photographer/PhotographerPage.jsx`
- `apps/dashboard/src/components/invitation/EventGallery.jsx`

Target sukses:

- Cover/music/gallery upload ke R2.
- Photographer bisa upload untuk guest/event.
- URL tersimpan ke Firestore.
- Public invitation menampilkan gallery.

Critical security:

- Batasi tipe file.
- Batasi ukuran file.
- Validasi event owner/admin.
- Jangan izinkan arbitrary objectKey delete/upload.



# CSS MAP DAN UI SYSTEM

## Prinsip desain Dibikin Online

Target rasa produk: **\*\*Canva + PowerPoint + CapCut + Luxury Wedding Builder\*\***. UI harus bersih, profesional, mobile friendly, dan tidak membuat canvas kalah prioritas.

## Design token rekomendasi

```
:root {  
  --ro-space-1: 4px;  
  --ro-space-2: 8px;  
  --ro-space-3: 12px;  
  --ro-space-4: 16px;  
  --ro-space-5: 24px;  
  --ro-radius-sm: 8px;  
  --ro-radius-md: 12px;  
  --ro-radius-lg: 16px;  
  --ro-dark: #101828;  
  --ro-muted: #667085;  
  --ro-gold: #b8893b;  
  --ro-teal: #0f766e;  
  --ro-danger: #dc2626;  
}
```

## Layout rules

### Desktop editor

- Topbar: 56-64px.
- Left sidebar/layer: 260-320px.
- Right property panel: 300-360px.
- Timeline: minimum 180px, ideal 220-260px.
- Canvas workspace harus area terbesar.
- Jika timeline sempit, gunakan horizontal scroll di dalam panel, bukan keluar frame.

### Mobile editor

- Full canvas first.
- Bottom sheet 40%-90%.
- Toolbar bawah max 5 tombol utama.
- Panel detail pakai tab: Text, Style, Layer, Animation, Asset.
- Touch target minimum 44px, ideal 48px.

## Mapping file CSS aktual

### [apps/dashboard/src/styles/editorTheme.css](#)

Jumlah class terdeteksi: 2

Class penting/awal:

- `` .editor-mode-selector-page``
- `` .mobile-editor-page``

Risiko:

- Sedang: cek pemakai class sebelum edit.

### [apps/dashboard/src/styles/global.css](#)

Jumlah class terdeteksi: 703

Class penting/awal:

- `` .account-profile-actions``
- `` .account-profile-card``
- `` .account-profile-fields``
- `` .account-profile-hero``
- `` .account-profile-shell``
- `` .account-profile-summary``
- `` .account-profile-workspace``
- `` .actions``
- `` .active``
- `` .admin-form-grid``
- `` .admin-form-wide``
- `` .admin-modal``
- `` .admin-modal-backdrop``
- `` .admin-support-actions``
- `` .admin-support-actions--single``

- `\.admin-support-copy-button``
- `\.admin-support-id``
- `\.admin-table``
- `\.admin-table-action``
- `\.admin-table-email``
- `\.admin-table-wrap``
- `\.admin-user-detail``
- `\.admin-user-detail-modal``
- `\.advanced-panel``
- `\.animation-debug-console``
- `\.animation-debug-console__body``
- `\.animation-debug-console__controls``
- `\.animation-debug-console__header``
- `\.animation-debug-console__layer-grid``
- `\.animation-debug-console__layers``
- `\.animation-debug-console__segment``
- `\.animation-debug-console__stats``
- `\.animation-debug-console__stress``
- `\.animation-debug-console__toggles``
- `\.animation-type-grid``
- `\.audio-preview``
- `\.auth-card``
- `\.button-link``
- `\.canvas-accordion``
- `\.canvas-accordion__body``
- `\.canvas-add-section-row``
- `\.canvas-add-section-row--compact``
- `\.canvas-asset-actions``
- `\.canvas-asset-card``
- `\.canvas-asset-card__icon``
- `\.canvas-asset-category-tabs``
- `\.canvas-asset-control``
- `\.canvas-asset-control__header``
- `\.canvas-asset-library-grid``
- `\.canvas-asset-manager-controls``
- `\.canvas-asset-preview``
- `\.canvas-asset-status``
- `\.canvas-asset-status--failed``
- `\.canvas-asset-status--success``
- `\.canvas-asset-tile``
- `\.canvas-asset-tile__thumb``
- `\.canvas-asset-upload``
- `\.canvas-binding-note``
- `\.canvas-cover-actions``
- `\.canvas-device-frame``
- `\.canvas-device-frame--desktop``
- `\.canvas-device-frame--full``
- `\.canvas-device-frame--mobile``
- `\.canvas-device-frame--preview``
- `\.canvas-device-frame--section``
- `\.canvas-device-frame--tablet``
- `\.canvas-device-switch``
- `\.canvas-editor-preview``
- `\.canvas-editor-side``

- `\.canvas-editor-side--left``
- `\.canvas-editor-side--right``
- `\.canvas-editor-toolbar``
- `\.canvas-editor-workspace``
- `\.canvas-grid-overlay``
- `\.canvas-inline-toggle``
- `\.canvas-insert-row``
- `\.canvas-layer-assets-empty``
- `\.canvas-layer-branch``
- `\.canvas-layer-engine-panel``
- `\.canvas-layer-engine-panel--simple``
- `\.canvas-layer-engine-toolbar``
- `\.canvas-layer-icon``
- `\.canvas-layer-icon-button``
- `\.canvas-layer-menu``
- `\.canvas-layer-menu-wrap``
- `\.canvas-layer-name``
- `\.canvas-layer-panel``
- `\.canvas-layer-quick-actions``
- `\.canvas-layer-section-switcher``
- `\.canvas-layer-select``
- `\.canvas-layer-tabs``
- `\.canvas-mini-actions``
- `\.canvas-object-handle``
- `\.canvas-object-row``
- `\.canvas-object-toggles``
- `\.canvas-object-tree``
- `\.canvas-object-tree--simple``
- `\.canvas-object-tree--v2``
- `\.canvas-object-tree-row``
- `\.canvas-panel``
- `\.canvas-panel--focus``
- `\.canvas-panel--properties``
- `\.canvas-panel--sections``
- `\.canvas-panel-header-split``
- `\.canvas-panel-stack``
- `\.canvas-publish-actions``
- `\.canvas-section-list``
- `\.canvas-section-preset-grid``
- `\.canvas-section-row``
- `\.canvas-section-row__actions``
- `\.canvas-section-row__header``
- `\.canvas-section-select``
- `\.canvas-selection-overlay``
- `\.com``
- `\.compact``
- `\.compact-help``
- `\.countdown``
- `\.countdown-label``
- `\.cover-choice``
- `\.danger``

Risiko:

- Tinggi: file global menyentuh dashboard, form, editor, public invitation. Jangan ubah selector umum tanpa cek 3 layar.

[apps/dashboard/src/styles/mobile-editor.css](#)

Jumlah class terdeteksi: 143

Class penting/awal:

- `\.danger``
- `\.editor-mode-card``
- `\.editor-mode-card--mobile``
- `\.editor-mode-card__dock``
- `\.editor-mode-card__phone``
- `\.editor-mode-card__preview``
- `\.editor-mode-card__preview--phone``
- `\.editor-mode-card__timeline``
- `\.editor-mode-card__topbar``
- `\.editor-mode-card__workspace``
- `\.editor-mode-selector``
- `\.editor-mode-selector-page``
- `\.editor-mode-selector__back``
- `\.editor-mode-selector__grid``
- `\.editor-mode-selector__header``
- `\.is-active``
- `\.is-error``
- `\.is-gesturing``
- `\.is-open``
- `\.is-peek``
- `\.is-selected``
- `\.is-sheet-open``
- `\.mobile-editor``
- `\.mobile-editor-action-button``
- `\.mobile-editor-action-button--compact``
- `\.mobile-editor-advanced-note``
- `\.mobile-editor-advanced-note--compact``
- `\.mobile-editor-alert``
- `\.mobile-editor-asset-grid``
- `\.mobile-editor-canvas``
- `\.mobile-editor-canvas-hint``
- `\.mobile-editor-canvas__frame``
- `\.mobile-editor-canvas__phone``
- `\.mobile-editor-canvas__viewport``
- `\.mobile-editor-chip-grid``

- `\.mobile-editor-empty``
- `\.mobile-editor-field``
- `\.mobile-editor-field--compact``
- `\.mobile-editor-field-group``
- `\.mobile-editor-grid-overlay``
- `\.mobile-editor-help``
- `\.mobile-editor-hint``
- `\.mobile-editor-motion-compact-grid``
- `\.mobile-editor-motion-step``
- `\.mobile-editor-motion-step__actions``
- `\.mobile-editor-motion-step__badge``
- `\.mobile-editor-motion-step__grid``
- `\.mobile-editor-motion-step__head``
- `\.mobile-editor-motion-step__title``
- `\.mobile-editor-motion-studio``
- `\.mobile-editor-motion-studio--pro``
- `\.mobile-editor-motion-studio--stacked``
- `\.mobile-editor-page``
- `\.mobile-editor-page--anim-paused``
- `\.mobile-editor-page--anim-playing``
- `\.mobile-editor-page--anim-stopped``
- `\.mobile-editor-panel-actions``
- `\.mobile-editor-sheet``
- `\.mobile-editor-sheet--closed``
- `\.mobile-editor-sheet__body``
- `\.mobile-editor-sheet__header``
- `\.mobile-editor-shell``
- `\.mobile-editor-status``
- `\.mobile-editor-toggle``
- `\.mobile-editor-toggle-row``
- `\.mobile-editor-toolbar``
- `\.mobile-editor-topbar``
- `\.mobile-editor-topbar__actions``
- `\.mobile-editor-topbar__back``
- `\.mobile-editor-topbar__save``
- `\.mobile-editor-topbar__scopes``
- `\.mobile-editor-topbar__title``
- `\.mobile-editor-topbar__transport``
- `\.mobile-editor-upload``
- `\.mobile-grid-panel``
- `\.mobile-insert-grid``
- `\.mobile-insert-group``
- `\.mobile-insert-panel``
- `\.mobile-layer-item``
- `\.mobile-layer-item__actions``
- `\.mobile-layer-item__icon``
- `\.mobile-layer-item__main``
- `\.mobile-layer-list``
- `\.mobile-motion-actions-row``
- `\.mobile-motion-active-step``
- `\.mobile-motion-add-row``
- `\.mobile-motion-basic-actions``
- `\.mobile-motion-card``
- `\.mobile-motion-card--timeline``

- `\.mobile-motion-card__header``
- `\.mobile-motion-effect-grid``
- `\.mobile-motion-empty-state``
- `\.mobile-motion-field``
- `\.mobile-motion-form-grid``
- `\.mobile-motion-help``
- `\.mobile-motion-section-controls``
- `\.mobile-motion-section-head``
- `\.mobile-motion-section-panel``
- `\.mobile-motion-selected-card``
- `\.mobile-motion-selected-card__main``
- `\.mobile-motion-selected-card__meta``
- `\.mobile-motion-step-actions``
- `\.mobile-motion-step-editor``
- `\.mobile-motion-step-editor__actions``
- `\.mobile-motion-step-list``
- `\.mobile-motion-step-list--single``
- `\.mobile-motion-tab-panel``
- `\.mobile-motion-tabs``
- `\.mobile-motion-target-tabs``
- `\.mobile-motion-target-wrap``
- `\.mobile-motion-timeline``
- `\.mobile-motion-timeline__add``
- `\.mobile-motion-timeline__bar``
- `\.mobile-motion-timeline__bar--loop``
- `\.mobile-motion-timeline__bar--out``
- `\.mobile-motion-timeline__chip``
- `\.mobile-motion-timeline__chip--loop``
- `\.mobile-motion-timeline__chip--out``
- `\.mobile-motion-timeline__chip-phase``
- `\.mobile-motion-timeline__endcap``

Risiko:

- Sedang: scoped mobile editor. Aman jika perubahan memakai prefix `\.mobile-editor-*``.

[apps/dashboard/src/styles/ro-mvp-ui.css](#)

Jumlah class terdeteksi: 142

Class penting/awal:

- `\.animation``
- `\.color``

- `\.event-editor-proof-preview``
- `\.has-luxury-svg-draw``
- `\.has-luxury-svg-morph``
- `\.has-luxury-svg-stroke``
- `\.has-luxury-svg-trace``
- `\.has-section-parallax``
- `\.has-section-scroll-reveal``
- `\.has-section-transition``
- `\.is-animation-triggered``
- `\.is-locked``
- `\.is-section-entering``
- `\.is-section-leaving``
- `\.is-section-revealed``
- `\.is-section-waiting-reveal``
- `\.is-selected``
- `\.is-timeline-active``
- `\.ro-and``
- `\.ro-anim-bounce``
- `\.ro-anim-breathing``
- `\.ro-anim-chain``
- `\.ro-anim-drift``
- `\.ro-anim-fade-down``
- `\.ro-anim-fade-in``
- `\.ro-anim-fade-out``
- `\.ro-anim-fade-up``
- `\.ro-anim-float``
- `\.ro-anim-gentle-rotate``
- `\.ro-anim-pulse``
- `\.ro-anim-rotate``
- `\.ro-anim-slide-down``
- `\.ro-anim-slide-in``
- `\.ro-anim-slide-left``
- `\.ro-anim-slide-right``
- `\.ro-anim-slide-up``
- `\.ro-anim-soft-swing``
- `\.ro-anim-soft-zoom``
- `\.ro-anim-zoom-in``
- `\.ro-anim-zoom-out``
- `\.ro-built-in-ornament``
- `\.ro-built-in-ornament--ring``
- `\.ro-built-in-ornament--sparkle``
- `\.ro-canvas-handle``
- `\.ro-canvas-handle--resize``
- `\.ro-canvas-handle--rotate``
- `\.ro-canvas-lock``
- `\.ro-canvas-object``
- `\.ro-canvas-object--button``
- `\.ro-canvas-object--divider``
- `\.ro-canvas-object--gallery``
- `\.ro-canvas-object--gift``
- `\.ro-canvas-object--maps``
- `\.ro-canvas-object--ornament``
- `\.ro-canvas-object--rsvp``
- `\.ro-canvas-object--shape``

- `\.ro-canvas-object--timeline``
- `\.ro-closing``
- `\.ro-countdown``
- `\.ro-countdown--object``
- `\.ro-cover``
- `\.ro-editor-panel``
- `\.ro-eyebrow``
- `\.ro-floating-menu``
- `\.ro-form-card``
- `\.ro-form-card--object``
- `\.ro-gallery-grid``
- `\.ro-gallery-grid--object``
- `\.ro-gallery-placeholder``
- `\.ro-gallery-placeholder--loading``
- `\.ro-gallery-status``
- `\.ro-gallery-status--error``
- `\.ro-gift-card``
- `\.ro-gift-list``
- `\.ro-guest-desktop``
- `\.ro-guest-mobile``
- `\.ro-guest-name``
- `\.ro-guest-shell``
- `\.ro-guest-shell--force-mobile``
- `\.ro-luxury-effects``
- `\.ro-luxury-effects__layer``
- `\.ro-luxury-effects__layer--background``
- `\.ro-luxury-effects__layer--foreground``
- `\.ro-luxury-effects__layer--middle``
- `\.ro-luxury-effects__particle``
- `\.ro-map-object``
- `\.ro-modal-actions``
- `\.ro-modal-backdrop``
- `\.ro-modal-card``
- `\.ro-muted``
- `\.ro-only-desktop``
- `\.ro-only-mobile``
- `\.ro-ornament``
- `\.ro-phone-frame``
- `\.ro-primary-button``
- `\.ro-profile-grid``
- `\.ro-qris``
- `\.ro-secondary-button``
- `\.ro-section-canvas``
- `\.ro-section-list``
- `\.ro-section-motion``
- `\.ro-section-parallax--background``
- `\.ro-section-parallax--foreground``
- `\.ro-section-row``
- `\.ro-section-transition--curtain``
- `\.ro-section-transition--parallaxSoft``
- `\.ro-template-field``
- `\.ro-template-renderer``
- `\.ro-template-section``
- `\.ro-template-section--canvas``

- `\.ro-text-anim``
- `\.ro-text-anim--blurReveal``
- `\.ro-text-anim--bounce``
- `\.ro-text-anim--elegantRise``
- `\.ro-text-anim--fadeDown``
- `\.ro-text-anim--fadeIn``
- `\.ro-text-anim--fadeLetter``
- `\.ro-text-anim--fadeLine``
- `\.ro-text-anim--fadeUp``
- `\.ro-text-anim--fadeWord``

Risiko:

- Tinggi: class `\ro-*` dipakai renderer undangan dan object canvas.

[apps/dashboard/src/templates/elegant-gold/styles.css](#)

Jumlah class terdeteksi: 158

Class penting/awal:

- `\.align-left``
- `\.com``
- `\.custom-position``
- `\.dragging``
- `\.eg-accordion-body``
- `\.eg-accordion-card``
- `\.eg-accordion-list``
- `\.eg-address-card``
- `\.eg-asset-arch``
- `\.eg-asset-confetti``
- `\.eg-asset-floral``
- `\.eg-asset-frame``
- `\.eg-asset-grid``
- `\.eg-asset-leaf``
- `\.eg-asset-spark``
- `\.eg-button-link``
- `\.eg-content``
- `\.eg-copied``
- `\.eg-countdown-grid``
- `\.eg-couple-section``
- `\.eg-cover-ambient``
- `\.eg-density-airy``
- `\.eg-density-compact``

- `\.eg-density-dramatic``
- `\.eg-error-message``
- `\.eg-eyebrow``
- `\.eg-floating-music``
- `\.eg-font-modern``
- `\.eg-font-romantic``
- `\.eg-font-serif``
- `\.eg-font-traditional``
- `\.eg-footer``
- `\.eg-gallery-grid``
- `\.eg-gallery-item``
- `\.eg-gallery-item--loading``
- `\.eg-gallery-modal``
- `\.eg-gallery-section``
- `\.eg-gift-card``
- `\.eg-gift-grid``
- `\.eg-gift-group``
- `\.eg-gift-icon``
- `\.eg-gift-layout``
- `\.eg-gift-section``
- `\.eg-guest-greeting``
- `\.eg-hero``
- `\.eg-hero-date``
- `\.eg-hero-inner``
- `\.eg-invitation-qr``
- `\.eg-layout-centered``
- `\.eg-layout-dramatic``
- `\.eg-layout-editorial``
- `\.eg-layout-heritage``
- `\.eg-layout-minimal``
- `\.eg-layout-playful``
- `\.eg-layout-soft-stack``
- `\.eg-location-actions``
- `\.eg-location-city``
- `\.eg-location-name``
- `\.eg-location-note``
- `\.eg-location-section``
- `\.eg-modal-close``
- `\.eg-motion-batik-slide``
- `\.eg-motion-fade-up``
- `\.eg-motion-floral-float``
- `\.eg-motion-gold-float``
- `\.eg-motion-leaf-float``
- `\.eg-motion-luxury-glow``
- `\.eg-motion-neon-pulse``
- `\.eg-motion-party-pop``
- `\.eg-motion-soft-zoom``
- `\.eg-music-section``
- `\.eg-muted``
- `\.eg-open-button``
- `\.eg-ornament-arch``
- `\.eg-ornament-batik``
- `\.eg-ornament-circle``
- `\.eg-ornament-circles``

- `\.eg-ornament-cloud``
- `\.eg-ornament-confetti``
- `\.eg-ornament-floral``
- `\.eg-ornament-frame``
- `\.eg-ornament-gold-frame``
- `\.eg-ornament-grid``
- `\.eg-ornament-islamic``
- `\.eg-ornament-leaf``
- `\.eg-ornament-line``
- `\.eg-ornament-moon``
- `\.eg-ornament-spark``
- `\.eg-ornament-wave``
- `\.eg-qr-section``
- `\.eg-qr-card``
- `\.eg-quick-nav``
- `\.eg-quick-nav-item``
- `\.eg-quick-nav-panel``
- `\.eg-quick-nav-toggle``
- `\.eg-rsvp-form``
- `\.eg-rsvp-message``
- `\.eg-schedule-card``
- `\.eg-schedule-grid``
- `\.eg-secondary``
- `\.eg-secondary-link``
- `\.eg-section``
- `\.eg-section-kicker``
- `\.eg-section-lead``
- `\.eg-section-slot``
- `\.eg-section-slot-countdown``
- `\.eg-section-slot-couple``
- `\.eg-section-slot-gallery``
- `\.eg-section-slot-gift``
- `\.eg-section-slot-schedule``
- `\.eg-section-slot-timeline``
- `\.eg-sections-corporate``
- `\.eg-sections-party``
- `\.eg-sections-weddingEditorial``
- `\.eg-sections-weddingHeritage``
- `\.eg-sections-weddingLuxury``
- `\.eg-sections-weddingMinimal``
- `\.eg-shell``
- `\.eg-status``
- `\.eg-success-message``

Risiko:

- Sedang: cek pemakai class sebelum edit.

# FIRESTORE, R2, SECURITY, DAN DATA MAP

## Collections yang terlihat dari rules/service

- `users`
- `events`
- `events/{eventId}/guests`
- `events/{eventId}/guestTokens`
- `events/{eventId}/gallery`
- `events/{eventId}/photos`
- `events/{eventId}/assets`
- `events/{eventId}/rsvp`
- `guests`
- `rsvp`
- `templates`
- `packages`
- `settings/payment`
- `settings/features`
- `payments`
- kemungkinan `photos` global dari `photoService`

## Role rules aktual

```
signedIn()          = request.auth != null
isDevAdmin()        = dev_ro/admin_ro/super_admin
isSupport()         = dev_ro/admin_ro/staff_ro/super_admin
isOwnerOfEventId   = event.ownerId == current user
published event    = published/status/isPublished
```

## Problem/potensi masalah

1. Public read untuk event published sudah ada. Pastikan field private/payment tidak ikut ditampilkan di public page.
2. Global child docs harus punya `eventId`; jika ada dokumen lama tanpa `eventId`, rules akan menolak.
3. Public RSVP bisa create jika event published. Ini benar, tapi harus ada rate limit di UI/worker jika nanti spam.
4. Owner update event aman dari protected payment fields, tetapi publish fields dikunci jika belum paid. UI harus sinkron.
5. `settings/payment` dan `settings/features` readable untuk signed in; pastikan tidak menyimpan secret di sana.

## R2 Worker map

Target file:

- ``api/r2-worker/worker.js``
- ``api/r2-worker/wrangler.toml``

Allowed folder:

guest, music, cover, gallery, qris, paymentproof, paymentqris

Object key pattern:

```
events/{eventId}/guests/{guestId}/{timestamp}-{filename}
events/{eventId}/cover/{timestamp}-{filename}
events/{eventId}/gallery/{timestamp}-{filename}
events/{eventId}/gift/qris/{timestamp}-{filename}
events/{eventId}/payments/proofs/{timestamp}-{filename}
settings/payment/qris/{timestamp}-{filename}
```

## Target perbaikan security berikutnya

- Tambahkan file size limit eksplisit di Worker.
- Tambahkan whitelist MIME type, bukan hanya extension.
- Tambahkan check role/owner yang jelas untuk delete object.
- Jangan pernah taruh service account secret di frontend.
- Pastikan CORS origin nanti dibatasi ke domain produksi, bukan ``*``, setelah launch.

## Command deploy/check

```
# Firebase rules
firebase deploy --only firestore:rules
```

```
# Worker R2
cd api/r2-worker
wrangler deploy
```

## CP ROADMAP - CHECKPOINT DETAIL LANJUTAN

### Prinsip checkpoint

Satu checkpoint = satu tujuan kecil, file target jelas, build wajib, commit wajib. Jangan gabungkan UI, database, worker, dan rules dalam satu commit besar kecuali benar-benar satu fitur kecil.

### CP00 - Stabilkan project sebelum lanjut

Goal:

- Build lokal bersih.
- Bersihkan node\_modules dari ZIP/commit.
- Pastikan package install normal.

Target file:

- ``.gitignore``
- ``apps/dashboard/package.json``
- ``apps/dashboard/package-lock.json``

Problem:

- ZIP membawa node\_modules tidak portable, Vite/Rolldown native binding missing.

Solusi:

```
cd apps/dashboard
rm -rf node_modules package-lock.json
npm install
npm run build
```

Target check after edit:

- ``npm run build`` sukses.
- Tidak ada import missing.

Git:

```
git checkout -b cp00-stabilize-build
git add apps/dashboard/package.json apps/dashboard/package-lock.json .gitignore
git commit -m "CP00: stabilize dashboard build dependencies"
git push origin cp00-stabilize-build
```

## CP20A - Feature registry + admin setting

Goal:

- Feature registry menjadi pusat kunci fitur.
- Admin bisa atur fitur per package/role.

Target file:

- `apps/dashboard/src/lib/features/featureRegistry.js`
- `apps/dashboard/src/lib/features/featureAccess.js`
- `apps/dashboard/src/lib/firebase/featureService.js`
- `apps/dashboard/src/pages/admin/FeatureAccessAdminPage.jsx`
- `firebase/firestore.rules`

Problem:

- Fitur premium bisa tersebar di banyak UI tanpa satu sumber kebenaran.

Solusi:

- Semua check premium lewat `resolveFeatureAccess` / `FeatureGate`.
- Jangan hardcode package di komponen editor.

Target check:

- Admin features page terbuka.
- Ubah fitur, simpan, reload tetap ada.
- User basic melihat lock pada fitur premium.

Git:

```
git checkout -b cp20a-feature-registry-admin-setting
npm run build
git add .
git commit -m "CP20A: stabilize feature registry and admin settings"
git push origin cp20a-feature-registry-admin-setting
```

## CP20B - Billing, QR, Gallery, Publish lock

Goal:

- Payment QRIS static dan proof upload jalan.
- Publish terkunci sampai paid.
- Gallery mengikuti paket/storage limit.

Target file:

- `apps/dashboard/src/lib/billing/packageRules.js`
- `apps/dashboard/src/lib/firebase/billingService.js`
- `apps/dashboard/src/pages/events/editor/BillingEventPage.jsx`
- `apps/dashboard/src/pages/events/editor/PublishEventPage.jsx`
- `apps/dashboard/src/pages/admin/PaymentConfirmationPage.jsx`
- `apps/dashboard/src/pages/admin/PaymentSettingsAdminPage.jsx`
- `api/r2-worker/worker.js`
- `firebase/firestore.rules`

Target check:

- User upload bukti bayar.
- Admin approve.
- Event bisa publish setelah paid.
- User unpaid ditolak publish oleh UI dan rules.

Git:

```
git checkout -b cp20b-billing-qrnis-gallery-publish-lock
npm run build
git add .
git commit -m "CP20B: connect billing QRIS gallery and publish lock"
git push origin cp20b-billing-qrnis-gallery-publish-lock
```

## CP20C - Editor premium lock

Goal:

- Object premium, template premium, animation premium terkunci untuk paket basic.

Target file:

- `apps/dashboard/src/components/features/FeatureGate.jsx`
- `apps/dashboard/src/pages/events/editor/ProfessionalEditorPage.jsx`
- `apps/dashboard/src/pages/editor/MobileEditorPage.jsx`
- `apps/dashboard/src/engine/premiumAnimationRegistry.js`
- `apps/dashboard/src/templates/templateRegistry.js`

Target check:

- Basic tidak bisa pakai premium template/animation/object.
- Premium bisa pakai.
- Export schema tidak menyimpan fitur premium yang tidak valid.

Git:

```
git checkout -b cp20c-editor-premium-lock
npm run build
git add .
git commit -m "CP20C: enforce editor premium locks"
git push origin cp20c-editor-premium-lock
```

## CP21 - Mobile editor polish

Goal:

- Mobile editor tidak berat, panel jelas, canvas mudah disentuh.

Target file:

- `apps/dashboard/src/pages/editor/MobileEditorPage.jsx`
- `apps/dashboard/src/hooks/useMobileGestureTransform.js`
- `apps/dashboard/src/components/editor/mobile/\*`
- `apps/dashboard/src/styles/mobile-editor.css`

Target check:

- Select object 1 tap.
- Drag/resize/rotate berjalan.
- Bottom sheet tidak menutupi semua canvas saat tertutup.
- Build sukses.

Git:

```
git checkout -b cp21-mobile-editor-polish
npm run build
git add .
git commit -m "CP21: polish mobile editor UX and gestures"
git push origin cp21-mobile-editor-polish
```

## CP22 - Admin Support Modules

Goal:

- Semua Event, Semua User, Masa Aktif Event matang.

Target file:

- `apps/dashboard/src/pages/admin/AdminEventsPage.jsx`
- `apps/dashboard/src/pages/admin/AdminUsersPage.jsx`
- `apps/dashboard/src/pages/admin/EventExpirationAdminPage.jsx`
- `apps/dashboard/src/components/support/SupportTools.jsx`
- `apps/dashboard/src/lib/support/supportTools.js`

Target check:

- Admin bisa search event/user.
- Copy id user/event tersedia.
- Admin bisa ubah expiry/masa aktif.
- Staff support tidak bisa ubah role super admin.

Git:

```
git checkout -b cp22-admin-support-modules  
npm run build  
git add .  
git commit -m "CP22: complete admin support modules"  
git push origin cp22-admin-support-modules
```

## CP23 - Template JSON Engine Hardening

Goal:

- Schema template aman untuk multi-template.

Target file:

- `apps/dashboard/src/templates/templateSchema.js`
- `apps/dashboard/src/templates/sectionSchema.js`
- `apps/dashboard/src/templates/templateRegistry.js`
- `apps/dashboard/src/editor/canvas/canvasUtils.js`

Target check:

- Export/import JSON berhasil.
- Template lama tidak rusak.
- Satu template production muncul, dummy hidden.

Git:

```
git checkout -b cp23-template-json-hardening
npm run build
git add .
git commit -m "CP23: harden template JSON schema"
git push origin cp23-template-json-hardening
```

# SOLO DEVELOPER HANDBOOK - DIBIKIN ONLINE

## Cara kerja aman tanpa AI berbayar

### 1. Jangan mulai dari coding

Urutan wajib:

```
Baca problem
→ cari target file
→ cek function terkait
→ buat branch
→ ubah kecil
→ build
→ test manual
→ commit
```

### 2. Cara mencari function dipanggil dari mana

```
grep -R "namaFunction" apps/dashboard/src services api -n
```

Contoh:

```
grep -R "publishEvent" apps/dashboard/src services -n
```

### 3. Cara mencari CSS dipakai di mana

```
grep -R "mobile-editor-sheet" apps/dashboard/src -n
```

Jika class hanya ada di CSS tapi tidak dipakai di JSX, mungkin dead CSS atau class dibentuk dinamis.

### 4. Cara menambah fitur kecil

Contoh: tombol copy event ID.

```
Area: Admin events
File UI: AdminEventsPage.jsx
File helper: SupportTools.jsx / supportTools.js
CSS: global.css bagian admin-support/copy
Data: event.id
```

Test: klik copy, paste ke notepad

Git:

```
git checkout -b cp-small-copy-event-id
npm run build
git add .
git commit -m "Add support copy event id action"
git push origin cp-small-copy-event-id
```

## 5. Cara memperbaiki layout berantakan

Checklist:

1. Cari class utama panel.
2. Cek parent display: flex/grid/block.
3. Cek width/height/min-width/min-height.
4. Cek overflow hidden/auto.
5. Cek position absolute/fixed.
6. Cek z-index.
7. Cek media query max-width.

Jangan langsung hapus CSS lama. Tambahkan override scoped dulu.

## 6. Cara memperbaiki Firestore permission denied

1. Catat collection path yang ditolak.
2. Catat operasi: read/create/update/delete.
3. Cek apakah user signedIn.
4. Cek role user di users/{uid}.role.
5. Cek event.ownerId.
6. Cek field eventId pada child doc.
7. Cek fields yang berubah apakah protected.

## 7. Cara memperbaiki upload R2 gagal

1. Cek Worker binding BUCKET.
2. Cek Authorization Bearer token.
3. Cek folderType termasuk allowed.
4. Cek eventId dan guestId.
5. Cek file size dan MIME.
6. Cek objectKey hasil response.

## 8. Cara memberi prompt ke AI gratis dengan aman

Template:

Kamu hanya boleh mengubah file berikut:

- file A
- file B

Jangan refactor folder.  
Jangan rename function publik.  
Jangan ubah schema Firestore.  
Jangan ubah route.

Target problem:  
[jelaskan]

Expected result:  
[jelaskan]

Setelah patch, berikan:

1. daftar file berubah
2. alasan perubahan
3. cara test
4. git command

## 9. Command rutin

```
git status
npm run build
git diff --stat
git diff -- apps/dashboard/src/path/file.jsx
```

## 10. Rollback aman

```
# batalkan file tertentu
git checkout -- apps/dashboard/src/path/file.jsx

# batalkan semua perubahan belum commit
git reset --hard

# balik ke commit sebelumnya dengan commit baru
git revert COMMIT_ID
```

## Buku saku JavaScript project ini

- `services/\*` = komunikasi Firebase/Firestore dan data logic.
- `pages/\*` = halaman route dan state besar.
- `components/\*` = UI reusable.
- `editor/canvas/\*` = logic canvas/layer/object.
- `engine/\*` = animation runtime/preset.
- `styles/\*` = tampilan. Jangan campur logic.

## Buku saku CSS project ini

- Prefix `.mobile-editor-*`` untuk mobile editor.
- Prefix `.ro-*`` untuk invitation/renderer/object canvas.
- Prefix `.admin-*`` untuk admin UI.
- Prefix `.canvas-*`` untuk professional editor/canvas.
- Hindari selector global seperti `button {}`` kecuali benar-benar perlu.

# PROMPT LIBRARY UNTUK GEMINI / DEEPSEEK / COPILOT / CODEX

## Prompt audit kecil

Audit file berikut tanpa mengubah kode:  
[PASTE FILE]

Cari:

1. bug nyata
2. import missing
3. state yang rawan rusak
4. function yang terlalu besar
5. CSS/class yang berkaitan

Jangan beri patch dulu. Beri daftar problem dan prioritas.

## Prompt patch aman

Kamu adalah coding assistant untuk project Dibikin Online.

BATASAN KERAS:

- Ubah hanya file: [sebutkan]
- Jangan rename export/function publik.
- Jangan ubah route.
- Jangan ubah schema Firestore kecuali diminta.
- Jangan refactor besar.
- Jangan hapus fitur lama.

MASALAH:

[jelaskan]

TARGET HASIL:

[jelaskan]

BERIKAN:

1. patch kode
2. file berubah
3. alasan perubahan
4. cara test manual
5. command git

## Prompt khusus CSS

Perbaiki layout CSS berikut secara scoped.

Boleh ubah hanya selector yang diawali:  
.mobile-editor-

Jangan ubah global button/body/main.

Masalah: [jelaskan]

Target: [jelaskan]

## Prompt khusus Firestore Rules

Audit Firestore rules berikut.

Jangan longgarkan akses public.

Fokus: owner event, support, dev admin, publish lock, payment lock.

Beri rekomendasi perubahan minimal dan alasan security.

## Prompt khusus Worker R2

Audit Cloudflare Worker R2 upload ini.

Fokus: auth, allowed folder, file size, MIME type, object key, CORS.

Jangan ubah contract response kecuali wajib.

## LAUNCH CHECKLIST - DIBIKIN ONLINE

### Build dan deploy

- `npm install` bersih di `apps/dashboard`
- `npm run build` sukses
- Cloudflare Pages root benar: `apps/dashboard`
- Environment variables dashboard lengkap
- Firebase authorized domain lengkap
- Worker R2 deploy sukses
- Firebase rules deploy sukses

### Security

- Firestore rules tidak public untuk private data
- Public invitation hanya baca event published
- Payment proof hanya owner/admin/support
- Admin route dilindungi role
- Worker auth wajib untuk upload private
- CORS production dibatasi domain resmi

### Product MVP

- Register/login
- Create event
- Basic/detail/schedule/location/media/gift
- Guest manager
- Template pilih satu production template
- Professional editor minimal save/preview
- Mobile editor basic edit/save

- Publish lock payment
- Public invitation link
- RSVP
- QR check-in
- Gallery tampil
- Admin payments/events/users/expiration

## Business

- Paket Basic/Premium/Exclusive jelas
- QRIS static siap
- Instruksi pembayaran jelas
- Support WhatsApp/email tampil
- Masa aktif event aktif
- Terms/privacy minimal ada