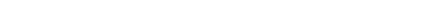


━━━━━━ (━━━━ + API + ━━━━) — 2025-11-28

... API

1) 

.....(.....).....`uploads/`

- 3 -

2) [REDACTED] ([REDACTED])

- `index.html`: Main application entry point.
 - `assets/js/projects-extended.js`: Handles `/api/projects` endpoint, utilizing `assets/data/content.json` for project data.
 - `assets/js/admin.js`: Manages CMS settings and interacts with the API.
 - `api/src/server.js`: Sets up Express, enables CORS, and connects to MongoDB to listen for requests.
 - `api/src/models/Project.js`: Defines the Project model schema, including fields like title, description, and slug.
 - `api/src/routes/projects.js`: Handles CRUD operations for projects, using the slug as a key identifier.
 - `api/src/routes/upload.js`: Handles file uploads, compressing them into WebP format and saving them in three sizes: `thumb`, `medium`, and `large`.
 - `api/scripts/`: Scripts for data import and image processing.
 - `import-from-cms.js`: Imports data from `content.json` into MongoDB, creating documents for each project.
 - `diagnose-images.js`: Checks images in the DB and renames them to `uploads/` followed by their original file names.
 - `localize-external-images.js`: Fetches images from Unsplash and converts them into WebP format.

- - -

3) [REDACTED] ([REDACTED] → API → [REDACTED])

- ```
1. `API_BASE` ('projects-extended.js') `/api/projects`.
2. `assets/data/content.json` .
3. `main_image_url` ('...-thumb.webp').
4. ('medium`/`large`) `loading="lazy".
5. `server.js` `uploads/^` .
```

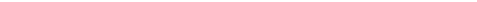
- - -

## 4)  (Upload & Optimization)

- `[REDACTED]: `POST /api/upload/image` ( [REDACTED] ). [REDACTED] FormData [REDACTED] `image`.`
  - `[REDACTED]: `sharp` [REDACTED] [REDACTED] WebP:`
    - ``*-thumb.webp` [REDACTED] 400px [REDACTED] ~80.`
    - ``*-medium.webp` [REDACTED] 800px [REDACTED] ~85.`
    - ``*-large.webp` [REDACTED] 1200px [REDACTED] ~90.`
  - `[REDACTED]: [REDACTED] `uploads/` [REDACTED] [REDACTED] [REDACTED] `uploads/*`.`
  - `[REDACTED]: JSON`

thumb.webp` `medium.webp` `large.webp`

- 3 -

## 5) 



---  
## C)  (GLP)

[REDACTED] `api` [REDACTED] PowerShell:

- ```
- [REDACTED] CMS [REDACTED] DB:  
  ``powershell  
  cd api; node scripts/import-from-cms.js  
  ``  
  
- [REDACTED] ( [REDACTED] ):  
  ``powershell  
  cd api; node scripts/localize-external-images.js --gallery  
  # [REDACTED] slug  
  cd api; node scripts/localize-external-images.js --slug youssef-alhubaiti-villa --gallery --retry 2 --retry-delay 500  
  ``  
  
- [REDACTED] ( [REDACTED] DB [REDACTED]):  
  ``powershell  
  cd api; node scripts/diagnose-images.js  
  ``
```

: 8 "OK" (

- 3 -

7) API

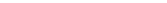
- ████: `GET /api/health` → `{ ok: true }`.
 - ████:
 - ████: `GET /api/projects?limit=100`
 - ████: `GET /api/projects/:slug`
 - ████/████████████: `POST/PUT/DELETE /api/projects` (████████ `Authorization: Bearer <token>`)
 - ████:
 - ████: `POST /api/auth/register`
 - ████: `POST /api/auth/login` → ████ `{ token }`
 - ████ █████: `POST /api/upload/image` (FormData █ `image`)
 - ████ █████ █████ █████ (██████): `POST /api/admin/db-config` █ `{ mongoUri, testOnly }`

三

8) [REDACTED] (admin.htm)

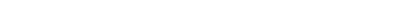
- **JSON**
 - **File System API**
 - **localStorage**:
 - **sessionStorage**.
 - **cookies**.
 - **localStorage + sessionStorage + cookies**.

1

9)  (projects-extended.js)

- ```
- `API_BASE` `window.API_BASE` .
- .
- .
- .
```

- 3 -

## 10)  (uploads/)



—

## 11) [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]

- WebP + .
  - `loading="lazy" .
  -  `prefers-reduced-motion`.



```
```powershell
cd api; node scripts/diagnose-images.js
```
[REDACTED]: [REDACTED] "OK" [REDACTED] "Missing" [REDACTED]
```
```
13) [REDACTED]
- [REDACTED] `window.API_BASE` [REDACTED] `index.html` [REDACTED] ([REDACTED]):

  ```html
  <script>
    window.API_BASE = 'https://your-domain.com/api';
  </script>
  ```

- [REDACTED] `/uploads` [REDACTED] [REDACTED]/Proxy [REDACTED].
- [REDACTED] HTTPS [REDACTED] Cache-Control [REDACTED].
- [REDACTED] `admin.html` [REDACTED] ([Basic Auth [REDACTED] VPN) [REDACTED].
```
```
14) [REDACTED]
- [REDACTED] : [REDACTED] `main_image_url` [REDACTED] gallery[].url [REDACTED] `/uploads/*` [REDACTED]
- [REDACTED] : [REDACTED] [REDACTED] [REDACTED] [REDACTED] (< 2MB [REDACTED]) [REDACTED]
- API [REDACTED]: [REDACTED] `/api/health` [REDACTED] Mongo [REDACTED] `admin/db-config` [REDACTED] `testOnly`.
- [REDACTED] : [REDACTED] [REDACTED] [REDACTED] [REDACTED].
```
```
15) [REDACTED]
- [REDACTED] `diagnose-images.js` [REDACTED] [REDACTED].
- [REDACTED] `localize-errors.log` [REDACTED] [REDACTED] ([REDACTED] 404).
- [REDACTED] [REDACTED] ([REDACTED]) [REDACTED] [REDACTED] [REDACTED] `uploads/` .
- [REDACTED] [REDACTED] AVIF [REDACTED] [REDACTED].
```
```
16) [REDACTED]
- [REDACTED] [REDACTED] [REDACTED] [REDACTED] `/uploads` .
- [REDACTED] 8 [REDACTED] CMS [REDACTED] [REDACTED].
- [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] 150 [REDACTED]
- [REDACTED] [REDACTED] API [REDACTED] CMS [REDACTED].
[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
```