# Database Layout

**Database Schema Design (MongoDB Style)**

**User Collection**

| **Field** | **Type** | **Description** |
| --- | --- | --- |
| email | String | **Primary key**, unique identifier |
| name | String | User's first name |
| surname | String | User's last name |
| password | String | Hashed password |
| role | String | 'admin' |
| level | String | Level or grade |

**Course Collection**

| **Field** | **Type** | **Description** |
| --- | --- | --- |
| \_id | ObjectId | Unique ID (auto) |
| title | String | Course name |
| description | String | Summary of the course |
| instructor | String | **Reference to user email** (or embedded doc) |
| level | String | Which level it's intended for (e.g. beginner , advance) |
| createdAt | Date | Auto-generated date |

**Reference or Embed?**  
We'll reference instructor by email (instructor: "teacher@email.com") for flexibility.

**Resource Collection**

| **Field** | **Type** | **Description** |
| --- | --- | --- |
| \_id | ObjectId | Unique ID |
| courseId | ObjectId | **Reference to Course.\_id** |
| title | String | Name of the resource |
| fileUrl | String | Link or path to resource (PDF/video/etc.) |
| type | String | 'pdf', 'video', 'link', etc. |
| uploadedBy | String | **Reference to admin/instructor email** |
| uploadedAt | Date | Auto timestamp |

