

## 4. Class Diagram

**Purpose:** Demonstrates system architecture and object responsibilities using three layers:

### a) Presentation Layer

- AdminUI, EmployerUI, GraduateUI: Interfaces used to render dashboards, profile editors, and verification tools.

### b) Business Layer

- Controllers (AdminController, EmployerController, GraduateController) encapsulate core logic.
- Services handle search logic, analytics, and notifications.

### c) Persistence Layer

- Repositories manage saving, querying, and updating entities like graduates, employers, certifications, and shortlist actions.

### d) Domain Models

- Graduate, Employer, Shortlist, and Certification: Represent core entities in the system.
- Encapsulate profile details, verification status, and shortlisting history.

### Relationships:

- UI classes invoke Controllers
- Controllers use Repositories and Services
- Services access lower-layer repositories
- Entities are persisted via their associated repositories