# AREA 4 : Internships , Applications & Models

This area manages the **creation, listing, filtering, and application process** for internships. It also handles how **users apply**, how **admins manage those applications**, and how status updates, resumes, and user restrictions work.

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## 1. Core Models and Relationships

```
User (custom)
├── OneToOne → UserProfile
├── OneToMany → Application
└── OneToMany → Notification

UserProfile
└── OneToMany → Certificate

Internship
├── ManyToMany → SkillTag
├── ForeignKey → User (admin)
└── OneToMany → Application

Application
├── ForeignKey → User
└── ForeignKey → Internship
```

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## 👤 2. `User` Model (Custom Auth Model)

| Field | Type | Notes |
|-------|------|-------|
| email | EmailField | Used as username for login |
| password | CharField | Required for email-based login |

| Field | Type | Notes |
|---|---|---|
| is_admin | Boolean | Superuser flag |
| date_joined | DateTime | Auto |

🔗 One-to-One with UserProfile

## 🧑‍💼 3. UserProfile Model

| Field | Type | Notes |
|---|---|---|
| user | OneToOne | Linked to User |
| full_name | CharField | Required |
| dob | DateField | Used to verify age > 18 |
| age | Integer | Cached (optional) |
| linkedin_url | URLField | Required during signup |
| github_url | URLField | Optional |
| resume | FileField | Required to apply |
| profile_picture | ImageField | Optional |
| address | CharField | Optional |
| bio | TextField | Optional |
| created_at | DateTime | Auto |
| updated_at | DateTime | Auto |

🔗 One-to-Many with Certificate

## 🧾 4. Certificate Model

| Field | Type | Notes |
|---|---|---|
| profile | FK → UserProfile | Owner of certificate |
| file | FileField | PDF or image |
| name | CharField | Optional title or extracted |
| uploaded_at | DateTime | Auto timestamp |

# 🧑‍🎓 5. Internship Model

| Field | Type | Notes |
|---|---|---|
| title | CharField | |
| description | TextField | |
| type | CharField | Paid / Unpaid |
| requirements | TextField | Skills, tools |
| eligibility | TextField | Criteria to apply |
| duration | CharField | Freeform (e.g., "6 weeks") |
| location | CharField | Remote / Onsite / Hybrid |
| start_date | DateField | |
| end_date | DateField | |
| deadline | DateField | No applications allowed after this |
| skills | M2M → SkillTag | Classify by tags like Python etc. |
| created_by | FK → User | Admin who posted |
| created_at | DateTime | Auto |
| updated_at | DateTime | Auto |

# 📎 6. SkillTag Model

| Field | Type | Notes |
|---|---|---|
| name | CharField | Normalized (e.g., "python") |
| slug | SlugField | Optional |

Used to tag and filter internships (autocomplete & deduplication logic)

# 📥 7. Application Model

| Field | Type | Notes |
|---|---|---|
| user | FK → User | Who applied |
| internship | FK → Internship | Target internship |

| Field | Type | Notes |
|---|---|---|
| resume_snapshot | FileField | Resume as it was when applied |
| additional_info | TextField | Optional cover letter or message |
| status | ChoiceField | applied , under_review , offered , accepted , etc. |
| admin_notes | TextField | Admin-only internal comments |
| applied_at | DateTime | Auto |
| updated_at | DateTime | Auto |

## 🔁 Application Status Workflow:

applied → under_review → offered → accepted → working → completed
                      ↘ declined / rejected

## 💡 Business Rules:

- User can apply to many internships

- Only one can be accepted (others auto-rejected)

- If status = working , user cannot apply to new internships

- Rejected applications are final

- Resume update affects only future applications

## 🔔 8. Notification Model

| Field | Type | Notes |
|---|---|---|
| user | FK → User | Who receives this |
| message | TextField | What the notification says |
| related_object | Generic FK | Link to internship or application |
| is_read | Boolean | True if seen |
| created_at | DateTime | Auto |

## 🧠 9. Key Admin Behaviors

| Admin View | Functionality |
|---|---|
| Internship | Create/edit internships, view inline applications |
| Application | Review applications, status edit, view profile inline |
| User | View & edit UserProfile , view applications inline |
| UserProfile | Editable with certificate inlines |

## 📋 10. Special Rules / Constraints

| Rule/Behavior | Status / Action |
|---|---|
| Resume snapshot kept per application | ✅ Yes (used only for that app) |
| Rejected apps cannot be reopened | ✅ Locked |
| Only 1 internship can be accepted | ✅ Logic enforced |
| Deadline disables application | ✅ Apply disabled after deadline |
| Internship hides after 3 days of expiry | ✅ On frontend |
| Cannot apply if already working | ✅ Enforced logic |
| Certificates: multiple upload allowed | ✅ In UserProfile |
| Profile editing: name, DOB, email locked | ✅ All other fields editable |