API Implementation Plan - New Domains

Goal Description

Design and implement the data models and APIs for **Entrance Exams** (extended), **Scholarships**, and **Infrastructure**.
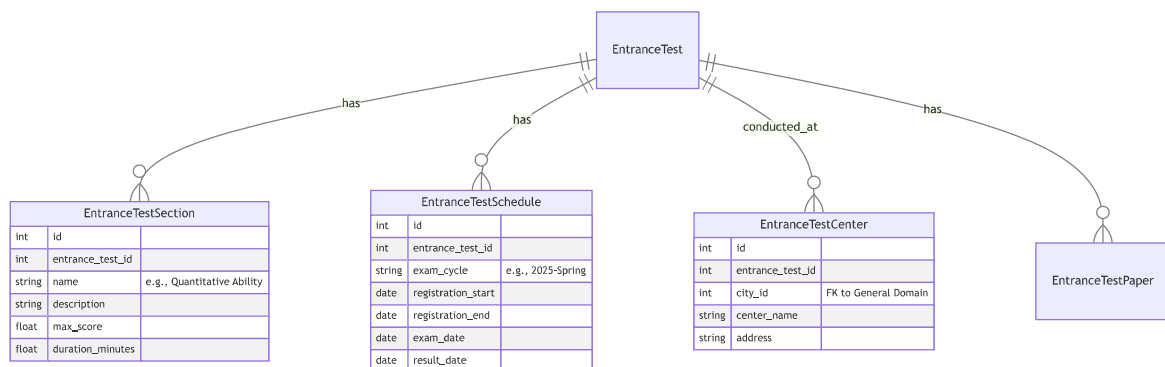
User Review Required

> [!IMPORTANT] **Entrance Exams Refactoring**: I propose moving existing `EntranceTest` model from `academics.py` to a new `entrance_exam.py` module for better domain isolation. This will require updating existing references.

1. Entrance Exams Domain

Goal: Expand the existing simple test definition to include structure, scheduling, and centers. **Effort Estimate**: Medium (due to refactoring and relationships)

Proposed Schema

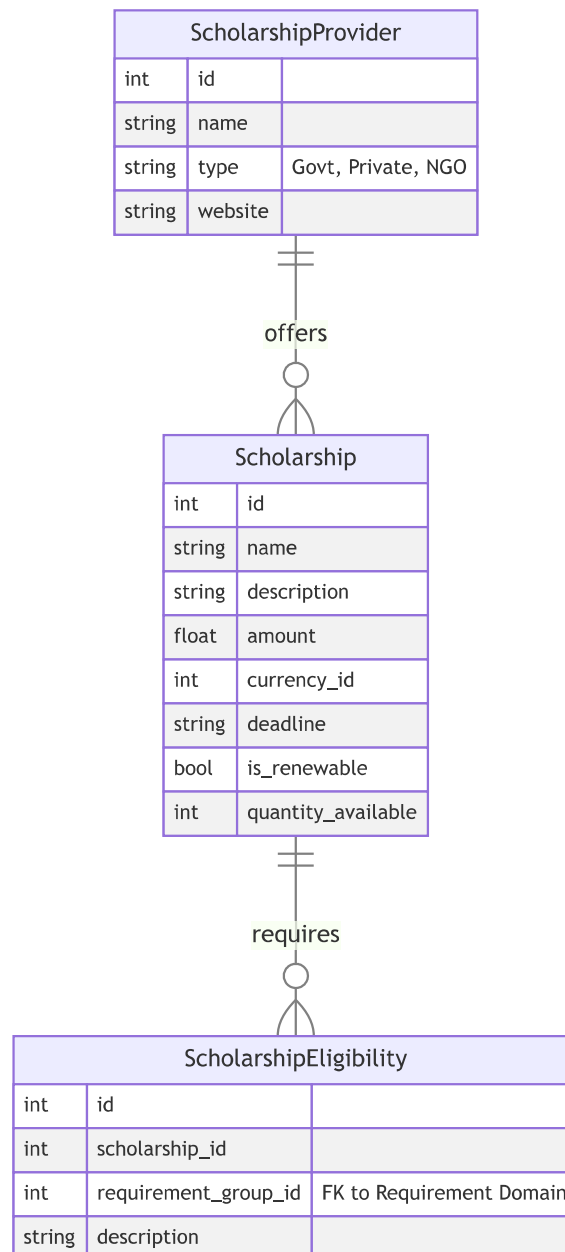### Changes

[NEW] models/entrance_exam.py

- Move `EntranceTest` here.
- Add `EntranceTestSection`, `EntranceTestSchedule`, `EntranceTestCenter`.

2. Scholarships Domain

Goal: Create a system to track financial aid opportunities, linked to eligibility criteria.
Effort Estimate: Medium

Proposed Schema
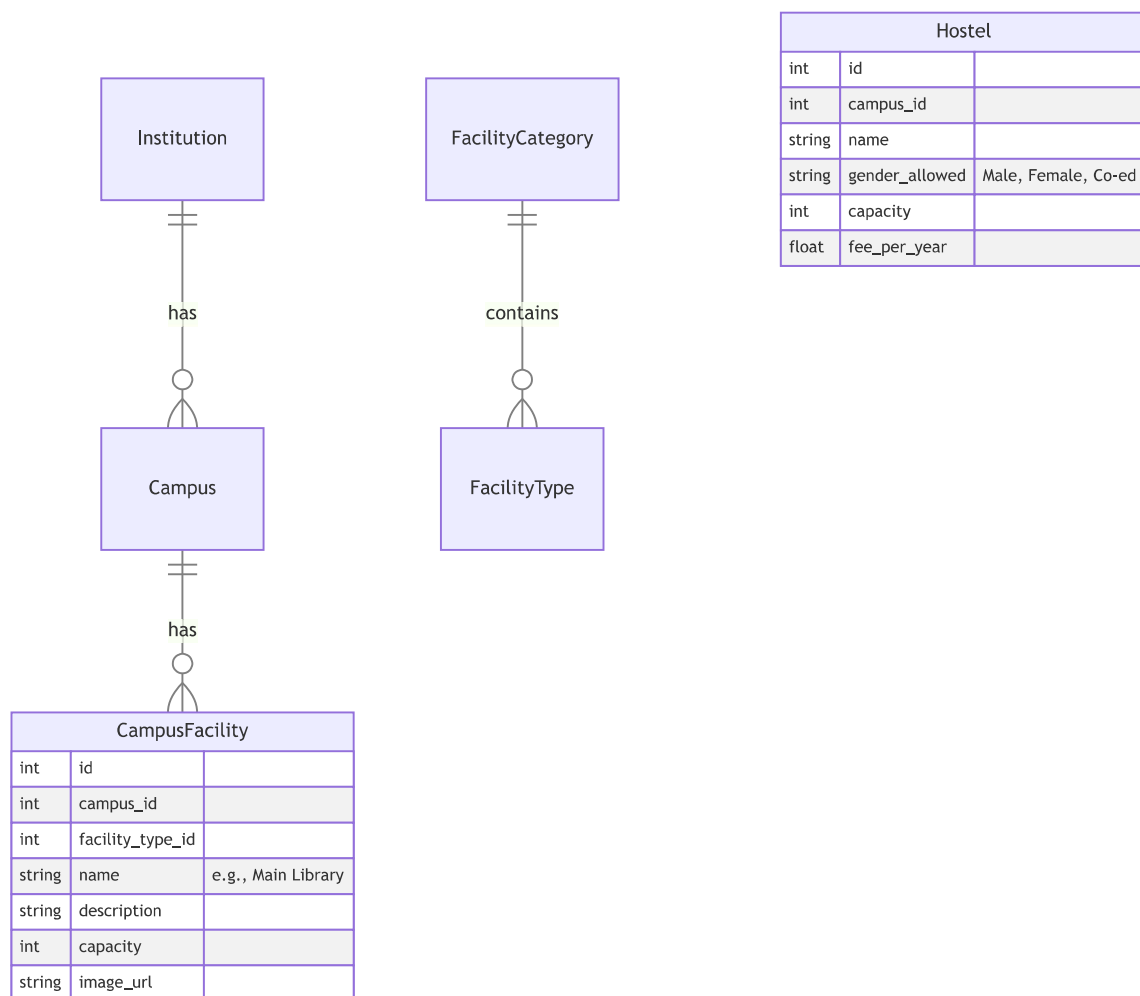
Changes

[NEW] models/scholarship.py

- `Scholarship, ScholarshipProvider, ScholarshipEligibility.`

3. Infrastructure Domain

Goal: Detail the physical and digital facilities of institutions. **Effort Estimate**: High (Many entity types linked to Institution)

Proposed Schema

Hostel		
int	id	
int	campus_id	
string	name	
string	gender_allowed	Male, Female, Co-ed
int	capacity	
float	fee_per_year	

CampusFacility		
int	id	
int	campus_id	
int	facility_type_id	
string	name	e.g., Main Library
string	description	
int	capacity	
string	image_url	

Changes

[NEW] models/infrastructure.py

- Campus (linked to Institution)
- FacilityCategory (e.g., "Sports", "Labs")
- FacilityType (e.g., "Swimming Pool", "Chemistry Lab")
- CampusFacility (The actual instance)
- Hostel

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