Model	Design Decisions	Relationship	Constraints/Integrity	Fields	Reasoning
DiningHall	Dining Hall is the domain for the product, framing dining halls in a university. Students are able to browse and compare meals based on where they're served.	One-to-Many relationship with the Meal Model. A single dining hall has many meals, and each meals belong to one hall.	UniqueConstraint(fields=['name'], name = 'uniquehall' prevents duplicate hall names.	Name, location	Minimal and intuitive for UI lists and filters.
Meal	Represents an indivual food item or dish served within a dining hall. It stores AI-enriched macronutrient data(protein, carbs, fats) and calorie counts. Unit that students(users of SmartEats)	Each meal belongs to a single dining hall. It is possible to reverse lookup meals using hall.meals Enforced by diningHall = ForeignKey(DiningHall, on_delete = CASCADE, related_name = "meals")	UniqueConstraint(fields = ['name', 'diningHall'], name = 'uniqueMeal') prevents duplicate meal names in a single dining hall. It is possible for a same meal to exist in different dining halls.	Name, Calories, Protein, Carbohydrate, Fat, Date, DiningHall	Nutrition data essential to meal planning and macro tracking, a key feature to enhancing students' healthy eating and tracking progress towards fitness goals.

	can evaluate and log.	on_delete = CASCADE to make sure that when Dining Hall is deleted, the meals that belong to that dining hall are also deleted			
UserProfile	Represents a student user of the SmartsEats application. Stores personalized health data (height, weight, age) and tracks past meals for tracking daily intake and progress towards fitness goals.	ManyToManyField connects UserProfile to Meal. Meals = ManyToManyField(Meal, related_name = “users”) lets a single user to log multiple meals over time. Also, meals are reusable for logging for multiple users.		Name, Lastname, Age, Height, Weight, Meals	Name and Lastname for authenticating and displaying user. Fields Age, Height, and Weight for personalization and tracking progress towards user’s fitness goals.