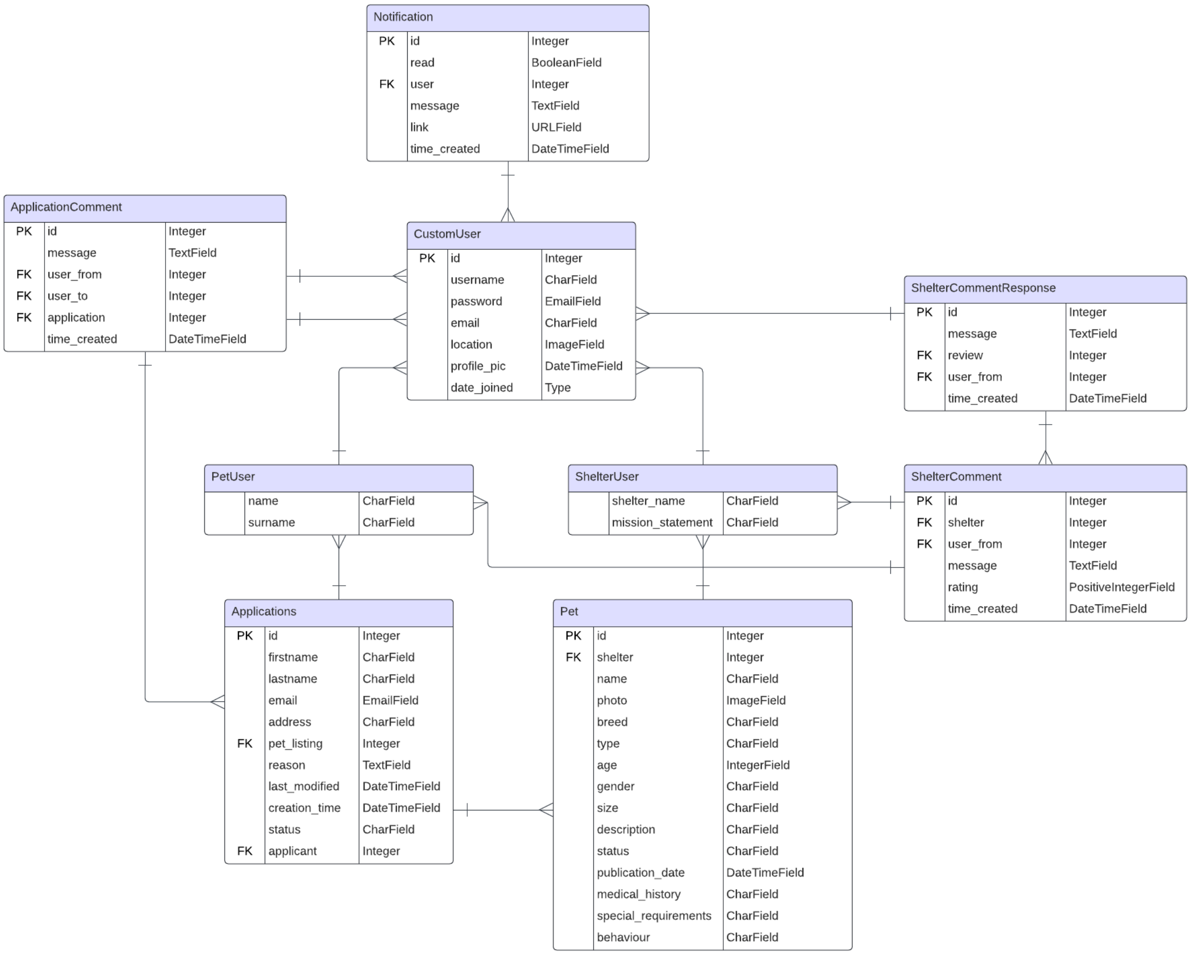
Model design:



Notification

PK	id	Integer
	read	BooleanField
FK	user	Integer
	message	TextField
	link	URLField
	time_created	DateTimeField

ApplicationComment

PK	id	Integer
	message	TextField
FK	user_from	Integer
FK	user_to	Integer
FK	application	Integer
	time_created	DateTimeField

CustomUser

PK	id	Integer
	username	CharField
	password	EmailField
	email	CharField
	location	ImageField
	profile_pic	DateTimeField
	date_joined	Type

ShelterCommentResponse

PK	id	Integer
	message	TextField
FK	review	Integer
FK	user_from	Integer
	time_created	DateTimeField

PetUser

	name	CharField
	surname	CharField

ShelterUser

	shelter_name	CharField
	mission_statement	CharField

ShelterComment

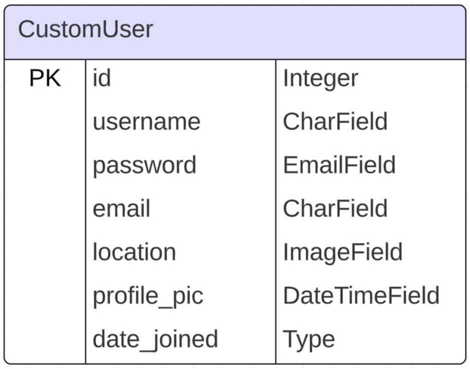
PK	id	Integer
FK	shelter	Integer
FK	user_from	Integer
	message	TextField
	rating	PositiveIntegerField
	time_created	DateTimeField

Applications

PK	id	Integer
	firstname	CharField
	lastname	CharField
	email	EmailField
	address	CharField
FK	pet_listing	Integer
	reason	TextField
	last_modified	DateTimeField
	creation_time	DateTimeField
	status	CharField
FK	applicant	Integer

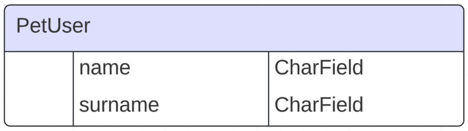
Pet

PK	id	Integer
FK	shelter	Integer
	name	CharField
	photo	ImageField
	breed	CharField
	type	CharField
	age	IntegerField
	gender	CharField
	size	CharField
	description	CharField
	status	CharField
	publication_date	DateTimeField
	medical_history	CharField
	special_requirements	CharField
	behaviour	CharField



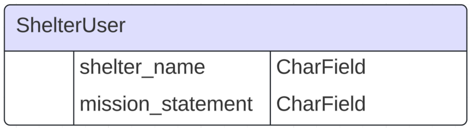
CustomUser

PK	id	Integer
	username	CharField
	password	EmailField
	email	CharField
	location	ImageField
	profile_pic	DateTimeField
	date_joined	Type



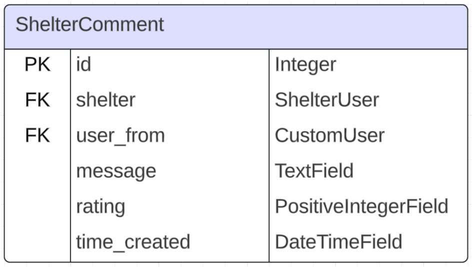
PetUser

	name	CharField
	surname	CharField



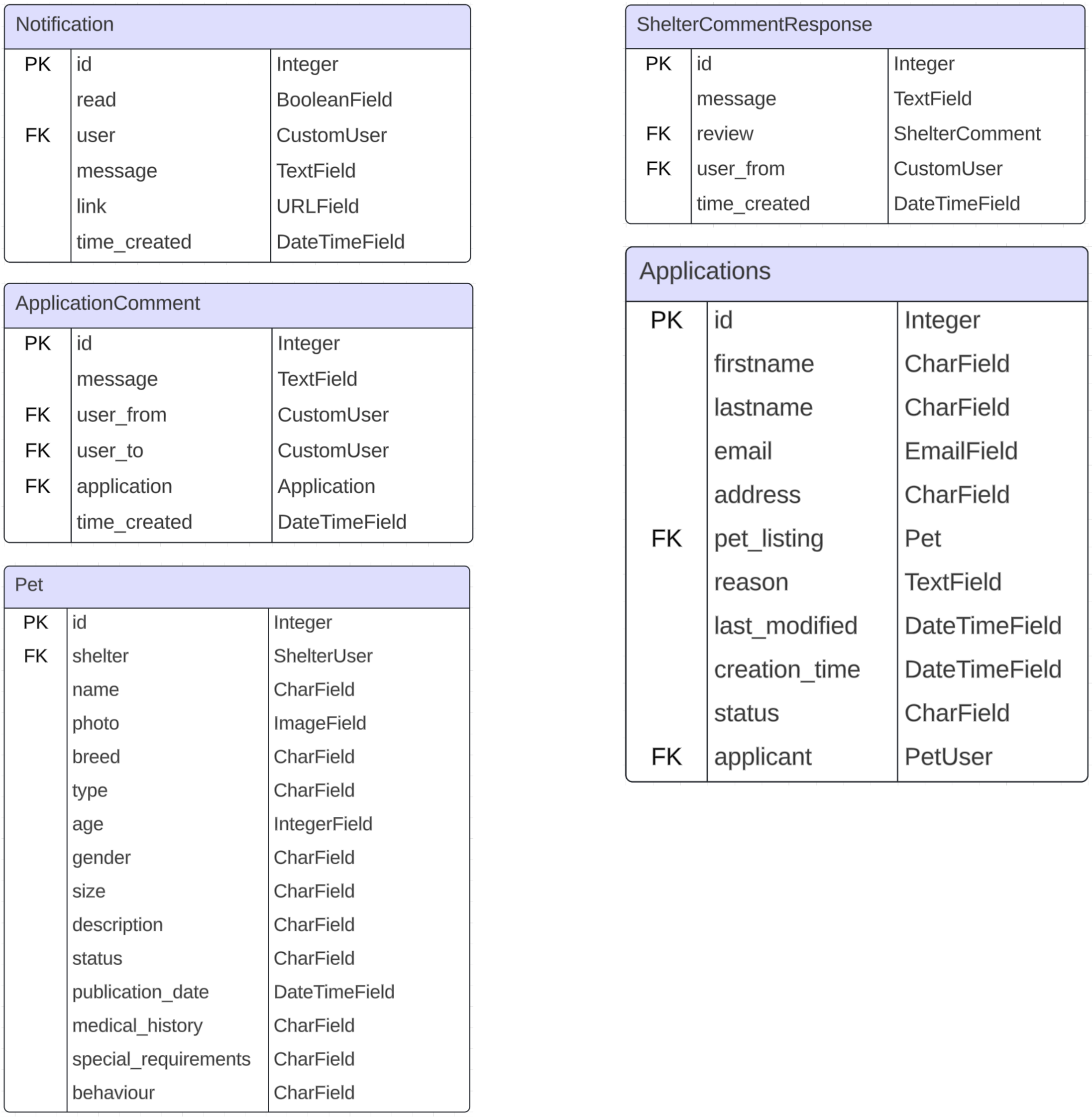
ShelterUser

	shelter_name	CharField
	mission_statement	CharField



ShelterComment

PK	id	Integer
FK	shelter	ShelterUser
FK	user_from	CustomUser
	message	TextField
	rating	PositiveIntegerField
	time_created	DateTimeField



Notification		
PK	id	Integer
	read	BooleanField
FK	user	CustomUser
	message	TextField
	link	URLField
	time_created	DateTimeField

ApplicationComment		
PK	id	Integer
	message	TextField
FK	user_from	CustomUser
FK	user_to	CustomUser
FK	application	Application
	time_created	DateTimeField

Pet		
PK	id	Integer
FK	shelter	ShelterUser
	name	CharField
	photo	ImageField
	breed	CharField
	type	CharField
	age	IntegerField
	gender	CharField
	size	CharField
	description	CharField
	status	CharField
	publication_date	DateTimeField
	medical_history	CharField
	special_requirements	CharField
	behaviour	CharField

ShelterCommentResponse		
PK	id	Integer
	message	TextField
FK	review	ShelterComment
FK	user_from	CustomUser
	time_created	DateTimeField

Applications		
PK	id	Integer
	firstname	CharField
	lastname	CharField
	email	EmailField
	address	CharField
FK	pet_listing	Pet
	reason	TextField
	last_modified	DateTimeField
	creation_time	DateTimeField
	status	CharField
FK	applicant	PetUser

Pet Listings:

Endpoint: /shelter-listings/<shelter_id>/

View: ListCreateAPIView

Methods: GET, POST

Description:

GET: List a shelter's pets. Use URL parameters status, type, breed and age to filter results by these fields. Use URL parameter search to filter by pets whose name, description, medical_history, special_requirements or behaviour contain the given value. Use URL parameter sort to order by desired fields and URL parameter order with values ASC or DESC to order the corresponding fields in ascending or descending order.

POST: Create a new pet for a shelter

Fields/payload: shelter, name, photo, breed, type, age, gender, size, description, status, publication_date, medical_history, special_requirements, behaviour, id

Permissions: Logged-in user must be a shelter and have the same id as shelter_id in the endpoint
Validation errors:

- Enter a valid email address
- This field is required (For required fields only)

Endpoint: /shelter-listings/<shelter_id>/pet/<pet_id>
View: RetreiveUpdateDestroyAPIView
Methods: GET, PUT, PATCH, DELETE
Description: GET: Retrieve a pet's info PUT/PATCH: Update a pet's info DELETE: delete a pet
Fields/payload: shelter, name, photo, breed, type, age, gender, size, description, status, publication_date, medical_history, special_requirements, behaviour, id
Permissions: Logged-in user must be a shelter and have the same id as shelter_id in the endpoint
Validation errors:

- Enter a valid email address

Endpoint: /pet-listings/
View: ListAPIView
Methods: GET
Description:

GET: List all pets. Use URL parameters shelter, status, type, breed and age to filter results by these fields. Use URL parameter search to filter by pets whose name, description, medical_history, special_requirements or behaviour contain the given value. Use URL parameter sort to order by desired fields and URL parameter order with values ASC or DESC to order the corresponding fields in ascending or descending order.

Fields/payload: shelter, name, photo, breed, type, age, gender, size, description, status, publication_date, medical_history, special_requirements, behaviour, id

Endpoint: /pet-listings/<pet_id>
View: RetrieveAPIView
Methods: GET
Description: GET: Retrieve an individual pet’s info
Fields/payload: shelter, name, photo, breed, type, age, gender, size, description, status, publication_date, medical_history, special_requirements, behaviour, id

Comments:
(Application Comments - Create, List)

- Only the specific shelter and pet seeker can comment on their application.

Endpoint: /comments/application/<application_id>/
Methods: POST, GET
Payload: message

Description:

POST: creates a message from request.user to the other person

GET: list all the messages between shelter and applicant

View class: ListCreateAPIView

Permission: request.user must be either the shelter or applicant associated with the application

(Review Comments - Create, List)

- Any logged in user/shelter can comment on a shelter.

Endpoint: /comments/reviews/<shelter_id>/

Methods: POST, GET

Payload: message, rating

Description:

POST: creates a review to the shelter

GET: list all reviews(including replies to reviews) of the shelter

View class: CreateListAPIView

Permission: request.user must be logged in/authenticated

Endpoint: /comments/reviews/<review_id>/replies/

Methods: POST

Payload: message

Description: POST: creates a reply to the review, allow shelters/users to reply to a review

View class: CreateAPIView

Permission: request.user must be logged in/authenticated

Notifications: (application status update or comment)

Endpoint: /notifications/user/<user_id>/

Methods: POST, GET

Payload: message, link

Description:

POST: creates a notification to the shelter

GET: list all notifications to the user

View class: ListCreateAPIView

Permission:

- only admin can create a notification for now for POST
- request.user must be user to view all notifications for GET

Endpoint: /notifications/<notification_id>/

Methods: GET, DELETE

Description: get or delete a notification
View class: RetrieveDestroyAPIView
Permission: request.user must be user of the notification

Accounts:
Endpoint: /accounts/shelter/
Methods: GET, POST
Fields/payload: username, password, repeat_password, email, shelter_name, mission_statement, location, profile_pic
Description: GET: view a list of all shelters, POST: create a shelter account
View class: ListCreateAPIView
Permission: no permissions required
Validation errors:

- This field is required
- User with this username already exists
- Passwords do not match
- Invalid email address

Endpoint: /accounts/pet-user/
Methods: POST
Fields/payload: username, password, repeat_password, email, name, surname
Description: create a pet seeker account
View class: CreateAPIView
Permission: no permissions required
Validation errors:

- This field is required
- User with this username already exists
- Passwords do not match
- Invalid email address

Endpoint: /accounts/shelter/<int:shelter_id>/
Methods: GET, PUT, PATCH, DELETE
Fields/payload: username, password, email, shelter_name, mission_statement, location, profile_pic
Description: GET: get shelter information, PUT: update all account fields, PATCH: update some account fields, DELETE: delete shelter account
View class: RetrieveUpdateDestroyAPIView
Permission: request.user must be the shelter and must be logged in/authenticated

Endpoint: /accounts/pet-user/<int:pet_user_id>/

Methods: GET, PUT, PATCH, DELETE
Fields/payload: username, password, email, name, surname, location, profile_pic
Description: GET: get pet seeker information, PUT: update all account fields, PATCH: update some account fields, DELET: delete pet seeker account
View class: RetrieveUpdateDestroyAPIView
Permission: request.user must be the pet seeker and must be logged in/authenticated

Endpoint: /accounts/shelter/<int:shelter_id>/profile/
Methods: GET
Fields/payload: shelter_name, email, mission_statement, location, profile_pic
Description: get information on the shelter
View class: RetrieveAPIView
Permission: request.user must be logged in/authenticated

Endpoint: /accounts/pet-user/<int:pet_user_id>/profile/
Methods: GET
Fields/payload: username, name, surname, email, location, profile_pic
Description: get information on the pet seeker
View class: RetrieveAPIView
Permission: request.user can only see the pet seeker profile if the pet seeker has an active application for one of the shelter's pets

Applications:

Endpoint: /applications/
Methods: GET, POST
Fields/payload: firstname, lastname, email, address, pet listing, reason for submission, last modified, creation time
Description:

- Pet seekers can create an application for a pet listing that is "available".
- Shelters can only view their own applications, not that of other shelters. Display all applications submitted to this shelter.

Endpoint: /applications/<int:pk>/
Methods: GET, POST
Description:

- Shelter can only update the status of an application from pending to accepted or denied.
- Pet seeker can only update the status of an application from pending or accepted to withdrawn.
  last_modified will be updated when the status of an application changes.

- Shelters and pet seekers can only view their own applications, not that of other shelters or pet seekers. Get an application based on its id.

Validation errors:

- Shelter does not have permission to view
- Pet seeker does not have permission to view