TEST ASSIGNMENT

# Veterinary Clinic | Application Brief

Design an app that allows pet owners to access their pet's examination information that was done in the veterinary clinic, at a glance. The app will be used by veterinarians at the clinic and pet owners to schedule visits and enter/access the latest info.

From the veterinarian's point of view, they should be able to approve suggested appointments from the owners, and enter the information on the pet and the examination as they happen.

The owners should be able to schedule visits in time slots, create vaccination reminders, and view information. The app should ease access to information for both veterinarians and pet owners and provide them a clear overview of the pet's condition and latest health stats.

You may use this as a base set of features, but we encourage you to take into consideration additional features that would take this concept to the next level. You may create the app from either the veterinarian's or pet owners point of view, or both.

## Initial brief roles and goals summary

**Roles**

Veterinarians
Pet owners

**General goals**

Ease access to information
Clear overview of the pet's condition and latest health stats
Schedule visits and enter/access the latest info

**Veterinarians goals**

Approve suggested appointments from the owners
Enter the information on the pet
Enter the information on the examination

**Pet owners goals**

Schedule visits in time slots
Create vaccination reminders and view information

# PetsPal

HELP FOR ALL, BIG OR SMALL

# App overview

The main goal of this app is to provide a holistic E2E experience for pet owners regarding all health issues with their pets. This includes visits to veterinary clinic for exams and vaccinations, home care, medication, health status tracking and updating, centralized file for every pet, veterinary advices and public knowledge base (news feed with tips).

Since the limited time frame and potentially very wide scope of this app, I will not deep-dive into immersive storytelling to cover all possible scenarios and features included. Instead, I will focus on separate features and their benefits. I took a liberty to expand the original brief requirements in order to provide better user satisfaction, for both veterinarians and pet owners point of view.

# Roles and permissions details

**Roles**

1. Veterinarian (client)

- View pet file with all data provided by client
- Can input data in pet file (vaccination and examination reports, weight, advices) during or after the visit/exam
- Full scheduling permissions
- Chat, on demand (text only)

2. Pet owner (user)

- Control over pet profile and it’s sharing
- Cannot modify veterinarian’s inputs
- Limited scheduling permissions (need approval from veterinarian)
- Chat, on demand (text only)
- Payments (later on that topic)
- Ability to call veterinarian or clinic in case of emergency (paid service, depend on policy)

3. Pet (profile)

- Can contain multiple profiles, for each pet
- Each pet have it’s species and breed, as well as other basic and advanced info
- Each pet have it’s own medical file, stats, logs, etc, under it’s profile (filled by owner and veterinarian)

# Guiding Principles

Since this is a hypothesis project, here I will define the main guiding principles that will ensure quality delivery and customer satisfaction and to keep application concept from falling into over-detailing and (unnecessary) feature overkill. Again, those principles are to be understood more as a global concept guidelines, than a strict set of rules.

## Effortlessness

**Make the life nice and easy for our users**

Take out the stress by relieving users and automate their daily routines
Remove the need for redundant and annoying interactions
Provide better life quality with minimal effort

## Proactiveness

**From mere butler to a personal concierge**

Make the app alive, instead of passive tool
Timely serve relevant information and suggestions
Know your user...

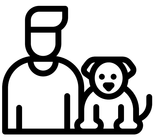
## Frictionless

**Reduce friction between services**

Make services work together and enable comfortable user experience
Enable data sync and centralized cloud storage, without separate hand-overs
Make services usable, but nor distractive

# App structure - Pet owner (user)

Here is a rough app structure, feature-wise, that I will explain in details through this presentation. This is not a classic user task flow, more a sum of all app features and their connection. It includes features requested in the brief, as well as additional ones and some future ideas and visions. Let's get started with pet owner role...



**Pet Owner**

**Primarily Mobile + Web App**

Mobile app is sufficient for most of the users, but take in consideration elderly population, people with older/slower devices or people who just do not want to hassle with tiny phone app

**Interactive onboarding**

- Informative: Learn about the app
- Interactive: Initial setup, add initial pet (profile)
- Can be skipped
- Notify how to continue setup if skipped
- Ability to launch onboarding again anytime within the app

**Basic info**

- Pet name and optional image
- Species and breed
- Weight (initially, may vary later with each measurement)
- Age (calculated based on DOB)

**Optional info for better personalized tips and suggestions**

- Indoor or outdoor pet?
- Specific medical conditions and allergies
- Feeding habits (food type, meal frequency and quantity)
- Amount of physical activity?
- Traveling with your pet? (later on that topic)

**Add pet profile**

- Add multiple profiles for pets
- Only one pet profile is active at a time (like in Gmail app)
- Active profiles can be switched

**Landing page News-feed / Tips**

**A really useful tips can be created based on personalization from profile data from and the time of the year (parasites, E.g., ticks), allergies, and similar**

- News feed with pet health tips
- Filter for pet that is currently active

**Historical log (automatic feature)**

- Reference log for all events
- All actions are automatically recorded in log for every profile (pet). From in-house medicine application to clinic visits (examinations, vaccinations, etc)
- Should be accessible to veterinarian as well for better insight of pet's medical history overview

**Pet profile**

- Manually input and track various conditions, like weight or other medical-related data
- Plot a chart for every data for easy visual overview with measurement time-stamp and value points
- Add photos and videos to pet profile for easier symptoms explanation, or for remote consultations without visiting (depends on policy)
- Ability to share pet profile real-time with veterinarian
- Dynamic content, always up-to-date for both sides
- Veterinarian can also add and track vaccination and examination reports, measurements, lab results, etc.
- Pet owner can also add those, but cannot modify veterinarian's, and vice versa

**Communication**

- Built-in module for chat with veterinarian
- Chat messages for questions, various info, checkup reminders
- Paid or free, depends on policy
- **Plain text only**. Multimedia and all medical data are available in accessible in shared pet profile (medical file).
- Primarily used for non-emergency situations (advices)

**Scheduling**

- Ability to schedule an appointment
- Ability to change scheduled slot for any other available slot
- Ability to request schedule or re-schedule for emergency appointment outside available slots
- Veterinarian will be notified but have to approve appointment shifting
- Veterinarian will be notified automatically on all scheduling actions by pet owner

**Calendar**

- Calendar module with overview of all appointments, both in past and the future.
- Switch between month, week and agenda views.
- Only user's appointments are visible.
- Other times lots are displayed as busy/unavailable.
- Ability to open scheduling page/modal for specific day (standard calendar functionality)

**Emergency communication**

- Veterinarian's or emergency clinic phone number should be always available to pet owner
- This is paid or free service
- Again, depends on policy/agreement

**Notifications**

- All other notifications besides manual alerts. E.g. change of appointment, etc
- Automatically triggered notifications for scheduled events (veterinary appointments from calendar, vaccinations, etc)

**Manual alerts**

- Set manual alert for home treatments (medicines or any other given therapy)
- One-time or recurring event.
- Confirm that medicine/treatment is given to pet for alert to be dismissed (tapping on check button or similar UI component)

Set alert priority:

- Low: Status bar notification
- Medium: Modal
- High: Modal + sound alarm

Upon confirmation, event is logged in historical log, for a reference. For example:

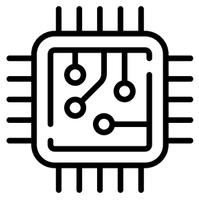
*"Received **Ivermectin** at 03:00 AM on Mar 18. 2019"*

# Future features to be considered

I will mention a few ideas that are pretty out of this assignment scope, but can provide very smooth user experience using available resources.

**Automated payments**

- Paying up-front for examinations can be tricky since it is uncertain what examinations and analyses will be required
- Applicable only for routine controls, chat and emergency contact services
- The best way is to connect account directly (like Uber) and transaction should be made automatically
- This lowers the time friction and stress and skips the whole manual billing procedure (”all is set”)

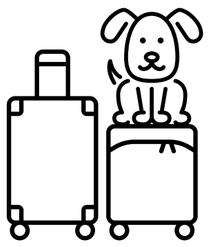


**Available technology usage**

- Biometric sensor collar/strap (depending on species) that can monitor and send real-time pet’s medical data while owner is away, at work or similar situation and alert on any changes
- Usage of wearables for quick glimpse at alerts and notifications
- Sharing pet profile with other users (family members) when someone needs to take over pet caring
- Not too relevant but helpful, GPS data that show pet’s location (at home, at clinic or away) and alert user

**Personalization**

- Use the power of habit
- Learn about owner and pet habits to give proactive predictions and suggestions
- If user have daily appointments or checkups and forget to schedule, learn and remind him
- If user need to give medicine to pet and forget to set the alert… remind him
- **Important note:** Predictions and suggestions are potentially risky. Implement them very carefully, only as confidence reaches certain level of maturity. Notify user with manners and discretion and avoid wrong predictions, surprises and user annoyance.



**Travel**

- If pet owner frequently travels with pet(s), it can be real tedious job to acquire all necessary travel documentation, procedures  and medications required
- Adding “travel” event type into calendar enables the app to timely notify user to prepare everything necessary for pet traveling (E.g. 3 weeks before traveling, depends on travel countries regulations)
- If pet owner is away traveling (without a pet), he/she should be able to delegate pet caring to family member or friend by sharing pet’s profile from the app

# App structure - Veterinarian (client)

The role of the veterinarian (client) is slightly different. Primarily, it have more permissions and overview of all pets and their owners (users) and have different goals. All other technical remarks regarding this chart structure and purpose remains the same as for pet owner role.

**Veterinarian**

**Primarily Web & Mobile App**

Desktop app is more convenient for veterinarian's clinic/office space (table) and a large number of appointments in calendar

**Informative Onboarding**

- Informative: Learn about the app
- Can be skipped
- Notify how to continue setup if skipped
- Ability to launch onboarding again anytime within the app

**Scheduling**

- Ability to schedule an appointment for pet owners
- Ability to reschedule any appointment
- Ability to approve or reject appointment shifting requested by pet owner
- Pet owners will be notified automatically on all scheduling actions by veterinarian

**Calendar**

- Calendar is a main module for veterinarian, with visibility of all appointments
- Overview of all appointments, both in past and the future
- Desktop is more convenient for a large number of client appointments
- Switch between month, week and agenda views
- Ability to open scheduling page/modal for specific day (standard calendar functionality)

**Notifications**

- All notifications regarding the upcoming appointments and related requests

**Communication**

- Built-in module for chat with pet owners
- Chat messages for questions, various info, checkup reminders
- Paid or free, depends on policy
- **Plain text only**. Multimedia and all medical data are available in accessible in shared pet profile (medical file).
- Primarily used for non-emergency situations (advices)

**Historical log (automatic feature)**

- Features the same functionality as for pet owners
- Also visible to veterinarian

**Pet profile**

- Full visibility of pet's profile
- Pet profile visibility is the same for both veterinarian and pet owner
- Input and track various conditions, like weight or other medical-related data
- Add examination photos and videos to pet profile if needed
- Veterinarian can add and track vaccination and examination reports, measurements, lab results, etc.
- Veterinarian cannot modify data entered by pet owner, but can make a suggestion (verbally or via chat)

**Emergency communication**

- Veterinarian or clinic have to provide emergency phone number that should be always available to pet owner
- This is paid or free service
- Again, depends on policy/agreement

**Ability to enter additional info**

- Indoor or outdoor pet?
- Specific medical conditions and allergies
- Feeding habits (food type, meal frequency and quantity)
- Amount of physical activity?
- Exam reports
- Therapy
- Medications

# Getting Started

In order to cover as much as horizontal features as possible in short time, I will not address standard actions like login, and similar. Focus will be on app concept and it’s benefits to user on high level and through high-fidelity wire-frames. On some occasions, I will display more detailed to showcase specific user flow or component. Other features will be visualized or described, as in previous features structure flows.

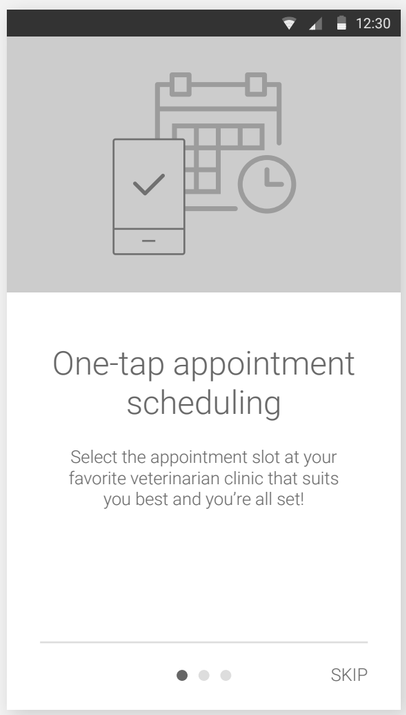
Note: All screens are in vector format and can be zoomed in for more detailed view. Resized to fit the presentation format, not pixel-accurate.

# Onboarding

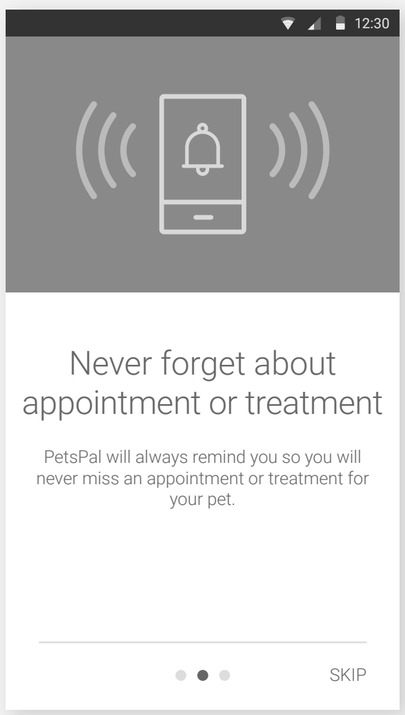
A very important step, usually overlooked in app development. The goal is to explain user highlights of the app, how it will make his/her life better and to offer initial setup, if needed, thus lowering learning curve (interactive onboarding). This also prevents later confusion and waste of time which significantly lowers user’s satisfaction. Everything needs to run smoothly.

In this case, user will be offered to create initial pet profile. Onboarding can also be skipped for various reasons (returning user, etc), but it needs to be accessible within the app anytime, as tutorial/wizard/reminder.

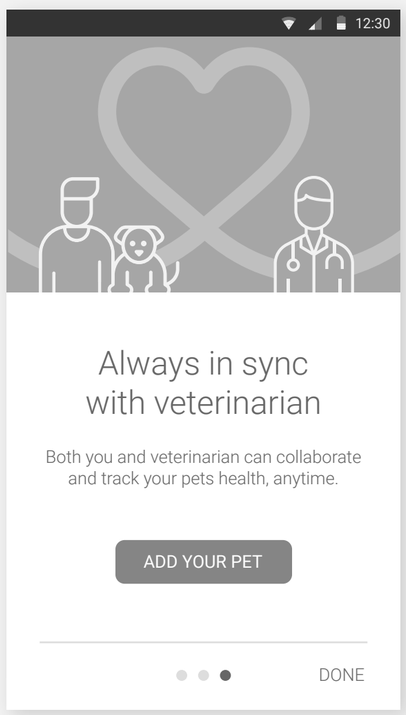

App loading screen




Welcome screen that explains app’s core scheduling feature



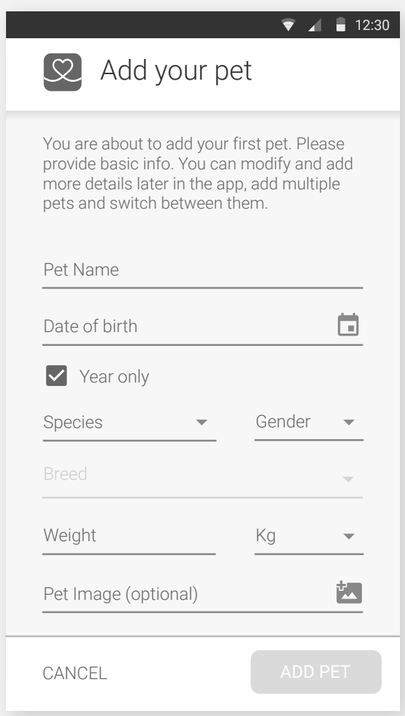

Explaining other features, for example reminders. Can be extended to more features.



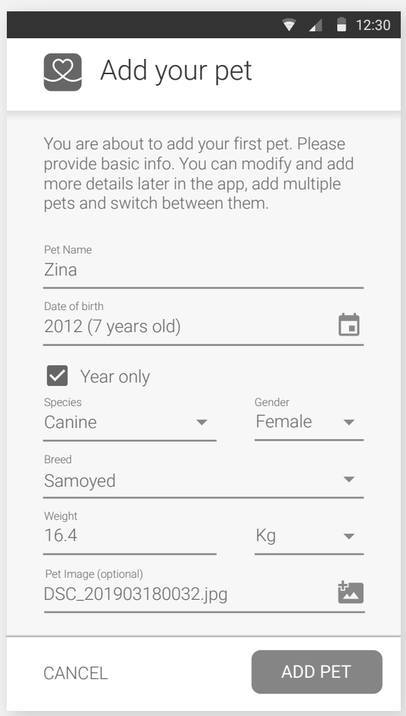

Introducing pet owner to pet’s shared profile functionality and offers to initially add pet (CTA).

**ADD YOUR PET**

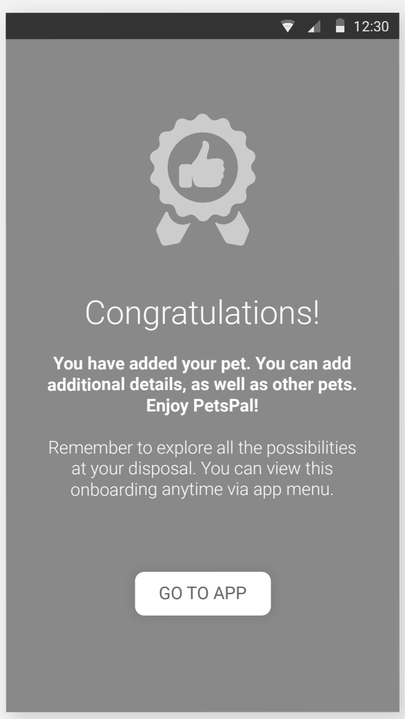
**DONE**



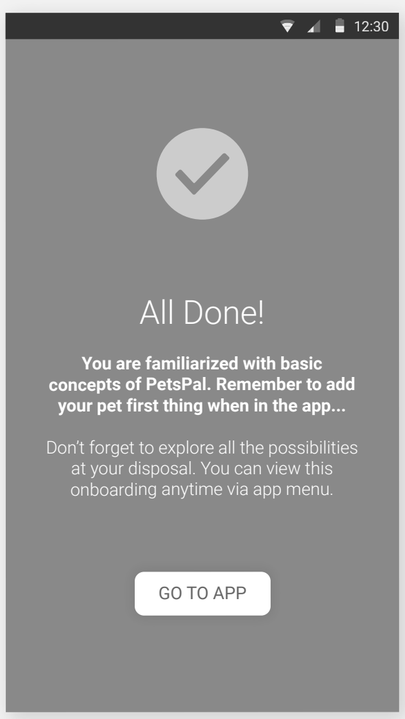

Basic pet info blank form. Only basic/necessary info in this step. Don’t scare users with huge forms.




Basic pet info filled form. Image chooser opens default phone gallery app.




Congratulations! (rewarding)



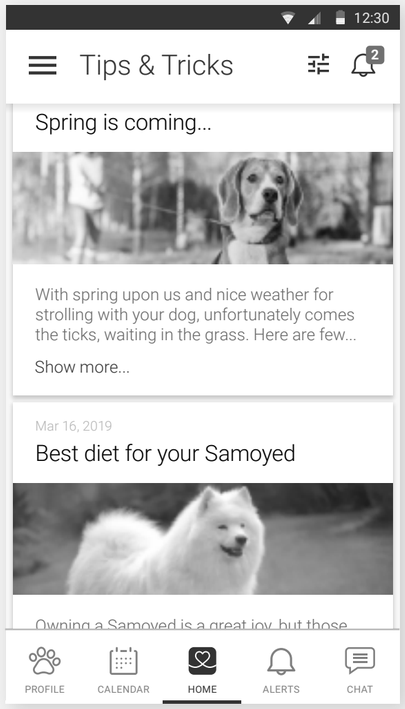

All done! (confirming)

# App layout

To keep things as simple as possible, there are 5 major app sections/modules: **Home**, **Calendar**, **Profile**, **Alerts** and **Chat**. Persistent sections that are available throughout the all sections are **App Menu** and **Notifications**. The most important menu items are closest to the thumb, in the bottom-left part of the screen, taking into consideration that the majority of population is right-handed.

# Home Sweet Home

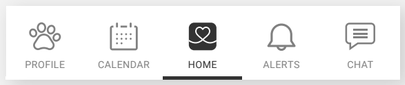
User lands on news feed page that serves as app home screen. This is basically lazy-load feed, similar to majority of social apps feeds, where user can be informed about useful health and lifestyle tips tailored for currently selected pet, based on the info provided. As user inputs more details about the pet, the more useful is content. Feed can be additionally filtered to serve even more focused content.



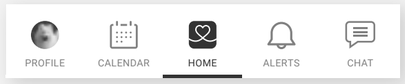

Home screen with tips news feed. Can be filtered from header icon.

**Pet profile**
Dynamic icon explained

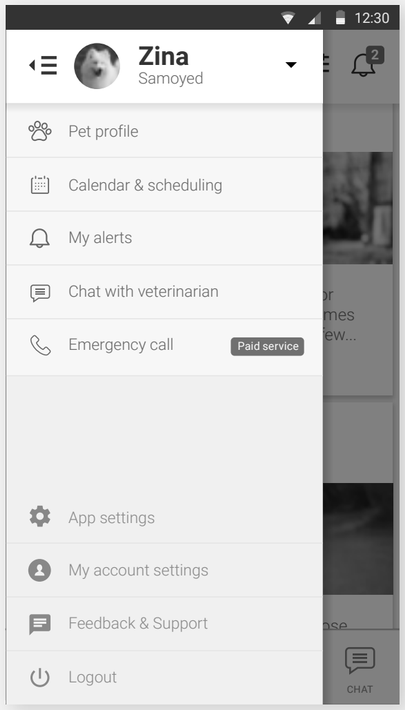

No pet added - CTA (filled) icon instead of pet profile



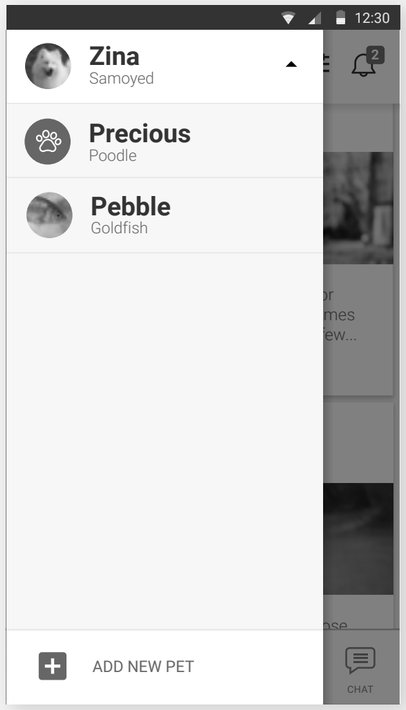

No pet image - Icon based on species (dog/canine)




Active pet image replaces icon, like in Instagram



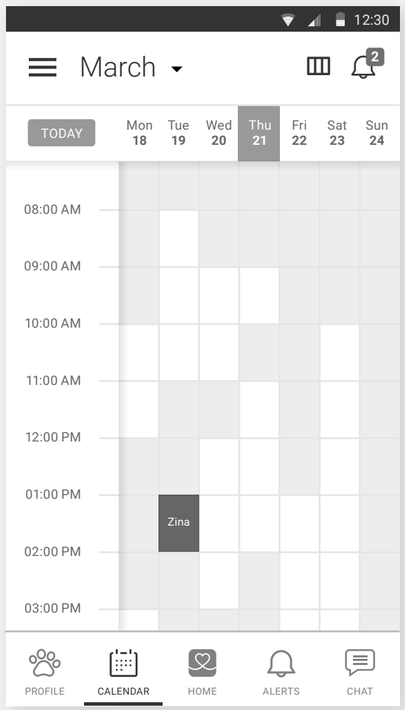

Opened app menu with currently active pet in header. Separated core and app/settings functionalities.



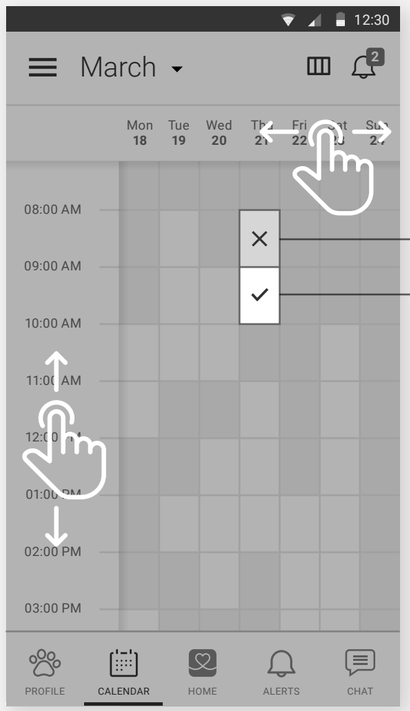

Active pet selection panel covers all menu items and removes close menu action. Contains add new pet CTA button. Focus...

# Calendar & Scheduling

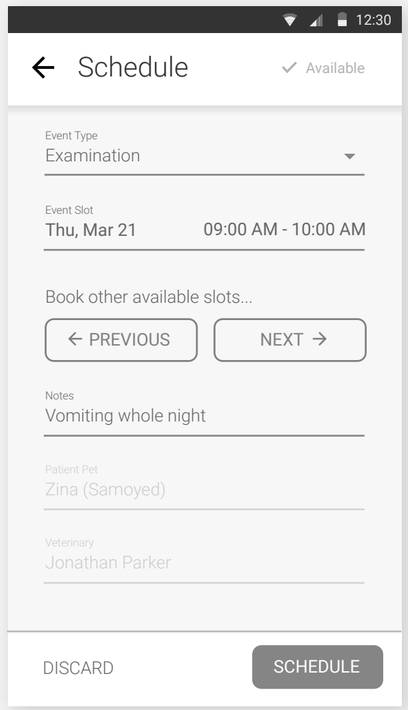
Calendar module that defaults to week view for easier time slots overview. Slots default time is one hour (can be changed by veterinary). User can choose event type: Examination, Vaccination, Control examination, Analysis (more can be added in the future). User can also move previously scheduled appointment to another slot (as mentioned before, veterinary is notified on any change). User can also schedule event in a busy/unavailable slot in case of an emergency, but will need veterinarian's approval for that.



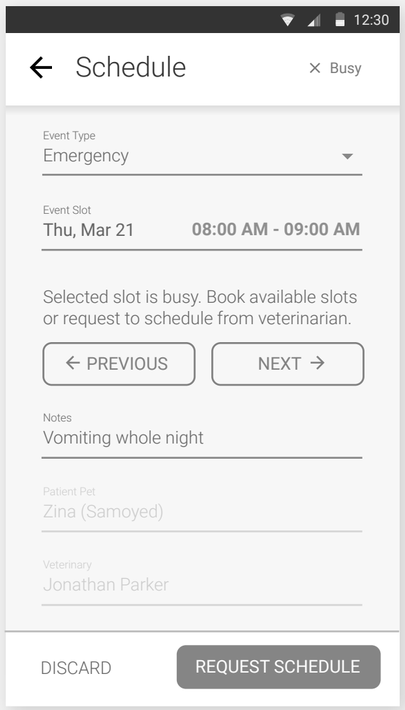

Calendar week view with free (white) and busy slots (shaded). Previous appointments are also visible.




Week view can be scrolled both horizontally (days) and vertically (time). User can tap on any desired slot to schedule an event.



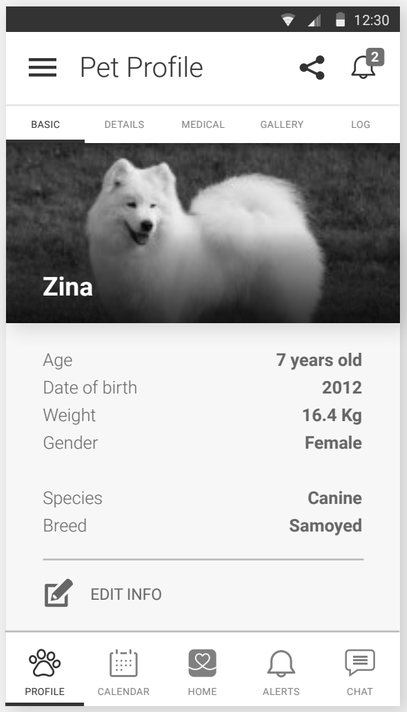

If selected slot is available, user will just schedule it and the veterinary will be notified.



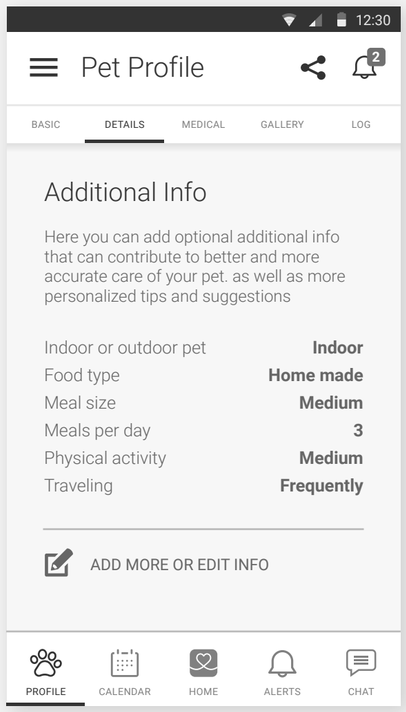

If selected slot is unavailable (busy), user can request to schedule it, but veterinarian's approval is needed.

# Pet Profile

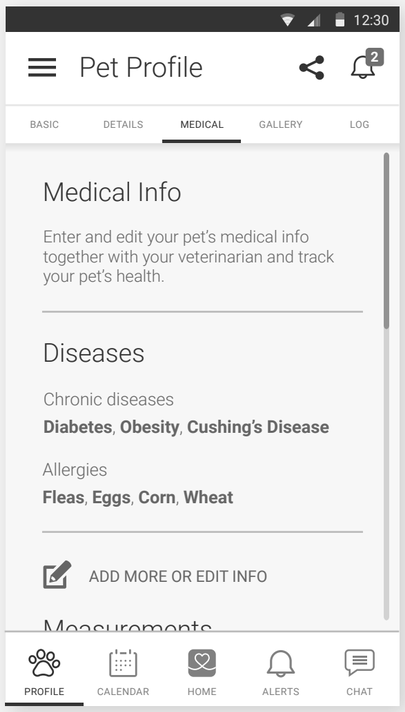
Pet profile covers pretty wide area and it’s one of the most important parts of the app. From basic and additional pet info to various measurements tracking and logging. I will explain some of the core functionalities which plays important role in veterinarian and pet owner collaboration, providing streamlined experience for both. Other, more generic functionalities will be explained verbally.



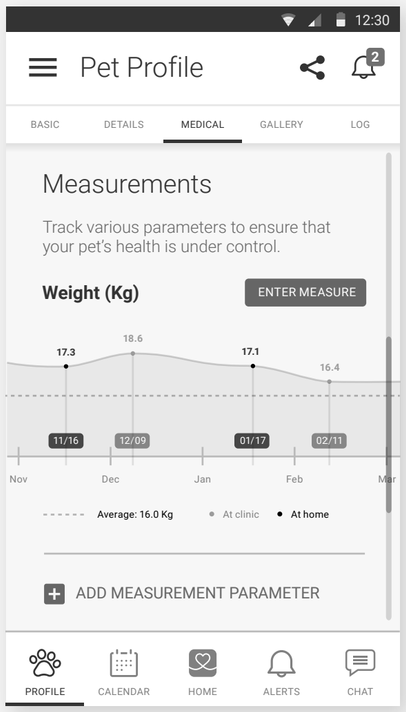

Owner can share, modify, add or remove info and remove pet profile. Veterinarian is restricted to medical-related info, like weight, which is dynamic (last entry).



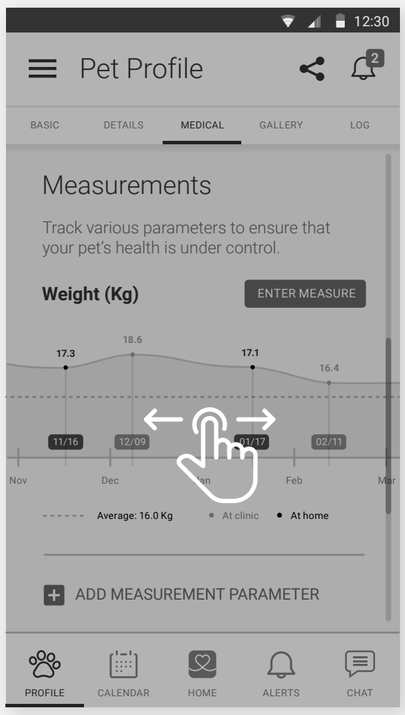

Additional and optional pet info that can greatly help veterinarian to set the diagnosis and to get more accurate and helpful feed tips on home screen.



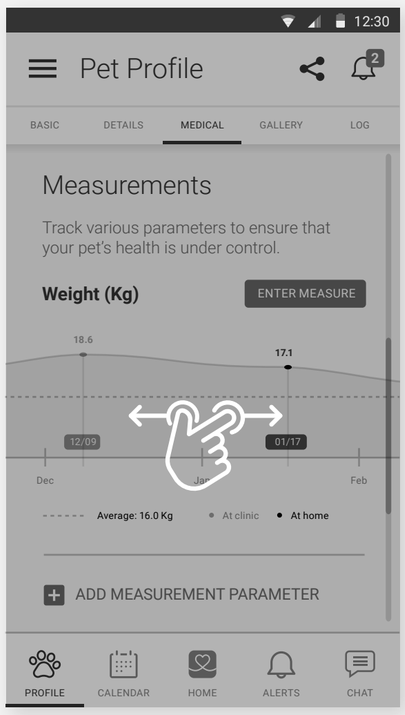

Medical info contains more specific informations that can be modified by both veterinarian and pet owner. Diseases, surgeries, measurements charts, vaccinations info, etc.




This is an example of weight tracking. Both veterinarian and pet owner can enter measurements. Enter measure opens simple modal with value input. time-stamp is added automatically.




Measurement chart can be swiped left and right. It ends with the current date, on the right.




Charts can also be zoomed in or out for better view by using pinch to zoom gesture.

### Gallery

Standard gallery screen that contains photos and videos of the pet and it’s automatically shared with veterinarian (along with the whole pet profile section).

Owner can add photos and videos directly by camera or selecting files from device. Veterinarian can also add photos and videos at the clinic, during or after the examination or procedure (with owner’s consent).

### Log

Automatically generated history log of all events regarding to the pet. From appointments and measurements, to medicine application and so on. It is sorted chronologically and contains entry type (mentioned above), time-stamp and short description. For example: “*Received Ivermectin at 03:00 AM on Mar 18. 2019*”

Log can be filtered by event types to narrow down the list. Useful as a global pet health overview/time-line for both veterinarian and pet owner.

# Other app sections

I will verbally describe remaining app sections, since they contain mostly standard features seen in many apps available on the market.

## Alerts

Very similar to standard alarm feature on most phones. Contains alert time and detailed recurring options. It can be one-time alert, everyday, every day of the week, or every week day in the month. Those features are found in most calendar apps and it is pretty time-consuming to visualize them as they provide little impact on this assignment.

The only unique feature is that user have to confirm the action (give medicine to pet) before turning off the alarm. For example, tap on the check-box or similar “confirmation” UI element. Afterwards, this action is automatically logged, as described in Log section above.

## Chat

Most basic 1:1 chat component that supports only text and links. No attachments or any advanced features. All multimedia is stored and available in pet profile section. This is not intended for emergency situations and should be informative communication with veterinarian, or chat-bot if it’s more suitable. Chat with veterinarian can be free or paid service, depending on policy.

## Emergency call

Very basic and very important feature. Enables pet owner to contact veterinarian or clinic staff in case of emergency. Veterinarian or clinic is obliged to provide emergency phone number, mobile or land-line. This is assumed to be paid service, but it also depends on policy.

## ...and everything else

Most common app and user account settings, optional feedback/support and logout. I won’t go into any details here since they are standard functionalities present in almost every app.

# Desktop app

Primarily targeted for veterinarian's clinic environment (desk), this app should contain most of the features showcased in phone app. Pet profile should have the same visibility on both platforms. Also very suitable for veterinarians since large screen gives better calendar view for a large number of appointments. Very different situation from pet owners who will see only their appointments and only busy or free slots, with no data inside.

The main downside of desktop app is a lack of persistence. Once user is away from desktop or laptop, he won't be notified. Dependency on another app (browser) is also a serious downside.

Desktop app usage is limited to clinic office space during work hours. For any other place and time, mobile app is essential.

# Appendix: Lean approach for initial launch

If time or resources does not allow separate development of native mobile apps and web app, lean approach should be considered. It have many downsides, but assures quick and relatively cheap initial launch. This assumes developing only responsive web app and wrap it into web-view for a “native” mobile app.

**Pros**

- Easier and faster development
- Workload and investment is significantly lower
- No need for separate apps development (iOS, Android)

**Cons**

- Sluggish performance
- Possible buggy behavior
- Disappointed tech-savvy audience

# Thank You!

This concludes my presentation of Toptal test assignment. Because of limited time-frame and the assignment scope, I have not created any visual design work and interactive prototypes, which are standard deliverables for a full-scale project.

Thank you for your time and attention and feel free to contact me if any additional explanation is required.


**Marko Zivanovic**

zivanovic.marko@gmail.com
+381 64 2370713