

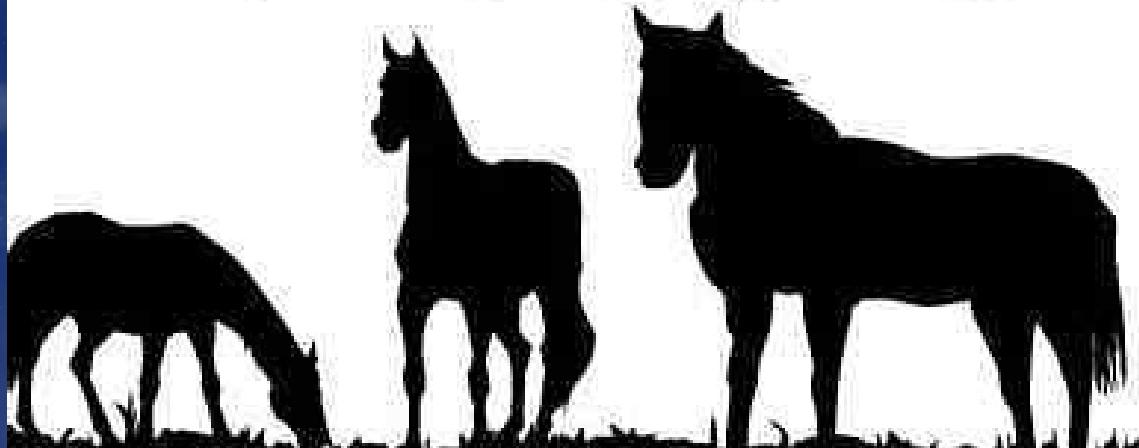
CODE FOR CHANGE

HACKATHON

Retirement Home for Horses, Inc.

Project Specifications

The Retirement Home
for Horses, Inc.



Alachua, Florida
www.millcreekfarm.org

INTRODUCTION

What is the Retirement Home for Horses?

Retirement Home for Horses, Inc. at Mill Creek Farm is a not for profit 501(c)(3) equine sanctuary located in Alachua, Florida. They provide lifelong care for elderly horses that have been neglected, abused or abandoned and seized by law enforcement agencies, SPCAs and other frontline rescue organizations. They also accept police and military horses.

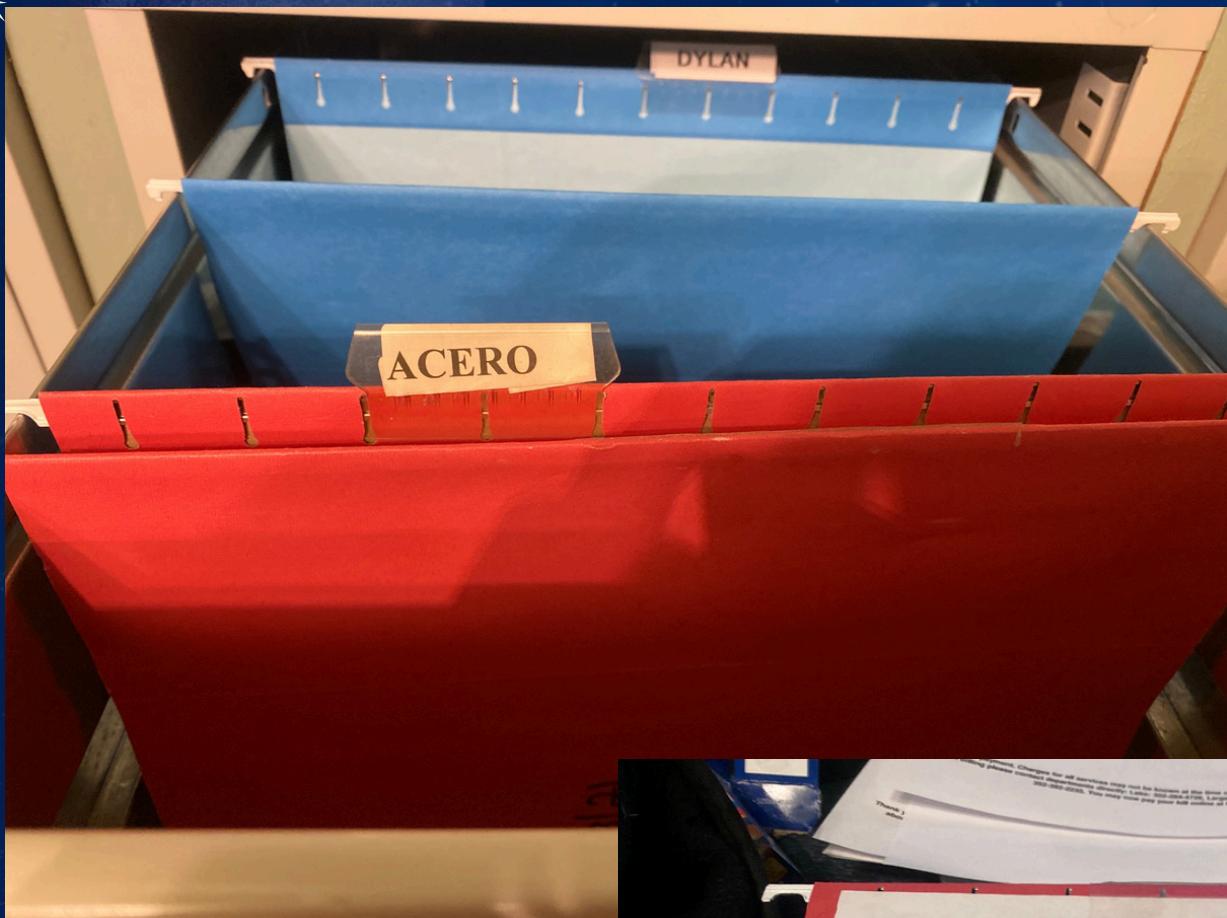
Problem Statement

The Retirement Home for Horses is home to over 100 horses! To keep track of each horse's information, the volunteers currently have a physical file system with a folder for each horse and their corresponding log with details such as treatments, vaccines, and dentist and farrier visits. While the volunteers currently depend on the paper files to retrieve information on the horses, they would like to have an application that quickly retrieves the information for them on their phones so that they can save time and dedicate more time to caring for the horses. For this project, you will create an application that (1) is accessible by both Android and iOS users, (2) would contain all data for each horse that can be updated daily and reflect every detail of their treatment and feeding plans, and (3) notifies all users when changes are made.



INTRODUCTION

Current File System



GROOMING REPORT			Date:
Horse	Volunteer	Issue	Treatment
3/9/22 FARRIER (DD)		11/3/23 IVERMECTIN	2/26/25 FARRIER (DD)
5/1/22 WORMING		WORMER	4/21/25 WORMING (JEFFERS)
5/11/22 FARRIER (DD)		3/11/24 EWT + WN	5/7/25 FARRIER (SHOE)
8/3/22 FARRIER (DD)		3/11/24 DENTAL	6/18/25 VACCINES PRESTIGE (MERCK)
10/5/22 FARRIER (DD)		3/29/24 CUSHINGS	6/18/25 PRESTIGE (MERCK)
10/21/22 WORMER		5/15/24 FARRIER (DD)	6/25/25 FARRIER (DD)
11/23/22 FARRIER (DD)		5/16/24 IVERMECTIN	SEDATION
12/20/22 EYE EXAM		6/8/24 RABIES	6/25/25 FARRIER (DD)
3/10/23 DENTIST		7/17/24 FARRIER (DD)	SHOE
4/28/23 WORMING		10/11/24 CUSHINGS	
5/10/23 FARRIER (DD)		10/21/24 FARRIER (DD)	
5/10/23 VACCINE		11/1/24 WORMER	
5/25/23 CUSHINGS TEST		PYRANTEL PAMOATE	
7/19/23 FARRIER (DD)		1/27/25 DENTIST	
9/13/23 FARRIER (DD)			
9/22/23 CUSHINGS			

PROJECT DETAILS

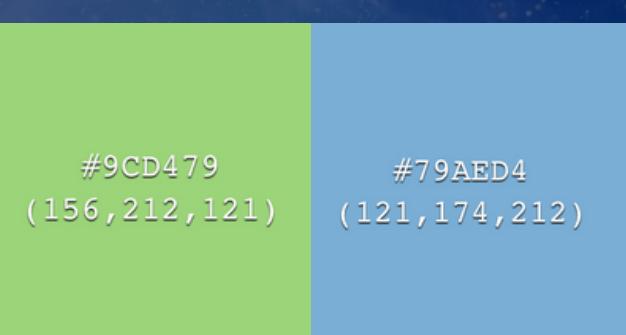
Requirements

Foundation: Web-based application to allow access for both Android and iPhone users that need to access the horse data. The horse data will essentially form a virtual file system to make searching specific horses (or lists of horses according to search filters) easier.

Permissions: The application requires password protection for all user accounts. Anyone can access the information as a viewer, but only 4 people need to have editor access: Paul, Ann, Amy, and Nicole. The 3 levels of access are administrator (Paul), editor (Ann, Amy, Nicole), and viewer (all other volunteers).

Data: The app will collect and display data regarding each horse's feeding schedules/types, medications that are administered, treatments done, special notes for horses (heart murmur, do not sedate, easily spooked, etc.), dates that farrier, eyes, vaccines, cushings test, or dental work were done. Specific data types are defined on Page 6.

Color Palette: Hex #9CD479 and #79AED4



PROJECT DETAILS

Requirements

Specific Features:

For each horse file in the library, there should be:

- Horse with age, sex, breed, current photo, and pasture/field home + arrival photo to see progress made
- Toggle switch for yes/no options (heart murmur, sedate, etc.)
- Dropdown options to avoid typos (meds & dosage, feed, treatments, etc.)
- Notes section for additional notes
- Section to view related documents

In the overall library, there should be:

- Archive list where we will have deceased horses that are not on “active” list but still accessible
- The ability to filter horses using search filters (e.g., “banamine” will list all the horses on banamine, “mash” will show horses on mash feed, etc.)

The app should also have tabs for:

- Push notifications that will notify users when change is made
- Audit trail that reflects what changes were made, when they were made, and who made them



PROJECT DETAILS

Stable Manager App

For inspiration on the app format, layout, and features, here is a link to **Stable Manager**, a horse bookkeeping app.

<https://stables.cloud/>



PROJECT DETAILS

Database Structure

How does the data in each table relate to each other and how are they displayed in the application?

User Table

- Every volunteer has a user account with viewing permissions, but only Paul, Ann, Amy, and Nicole have editing privileges while Paul has administrator privileges.

Horse Table

- Each horse record represents a file in the library
- Each horse's file indicates whether they are receiving a treatment from the **Treatment** table by being able to multi-select them from a dropdown list
- A horse can have multiple treatments
- A horse's file may contain documents from the **Documents** table

Action Taken Table

- There should be a section on the horse's file that lists when a treatment from the Treatment table is administered, any notes on it, and who completed the action and when.

Daily Observations/To-Do List Table

- There should be a general page with to-do-list items where the staff can take notes on what they did, mark the task status, and notify staff upon completion (if set to true)

Audit Trail

- There should be a page with a log that accounts for any changes made to any table, including who made the change, when it was changed, and what was changed (before and after)

PROJECT DETAILS

Database Structure

User Table:

Unique ID	System-generated
Name	
Administrator	Y/N
Edit Capabilities	Y/N
View Capabilities	Y/N
Active User	Y/N
Phone	(for pushing text messages/notifications)
Datetime last updated	

PROJECT DETAILS

Database Structure

Treatment Table

Unique ID	System-generated
Type of Treatment	(See list below)
Frequency	(Optional)
Datetime last updated	
User that made change	(Link to User table)

Types of Treatment

- Antibiotics
- Banamine
- Bandaging
- Bute
- Cushings exam
- Dental
- Dex
- Drainage
- Equi-spot
- Eye exam
- Farrier
- Gel DeWormer
- Medicated bath
- Paste DeWormer
- Pellets DeWormer
- Prascend
- Previcox
- Drainage
- Tubed for choke
- Tubed for colic
- Vet exam
- “Other” option (free text field)

*1-to-many relationship between Horse Table & Treatments Table
i.e., a horse can have many treatments

PROJECT DETAILS

Database Structure

Horse Table:

Unique ID	System-generated
Name	
Picture	Image
Biography	Image
Birth Year	To calculate Age that appears in a horse's file. Increment Age by 1 year every January 1st
Arrival Date	To calculate the number of years they have been a RHH retiree
Breed	Drop-down list*
Gender	Mare, Gelding
Left Eye	Missing, Blind, Glaucoma, Injured
Right Eye	Missing, Blind, Glaucoma, Injured

*Listed breeds can be found in Horse Logs file

Admin should be able to add new breeds to Breeds list

PROJECT DETAILS

Horse Table (Continued)

Heart Murmur	Y/N
Cushings Positive	Y/N
Heaves	Y/N
Anhidrosis	Y/N
Shivers	Y/N
Bites	Y/N
Kicks	Y/N
Difficult to catch	Y/N
Problem w/ needles	Y/N
Problem w/ farrier	Y/N
Sedation for Farrier	Y/N
Requires extra feed	Y/N
Requires extra mash	Y/N

Attributes should be visually grouped.

Red: Medical, **Light Blue:** Behavior, **Orange:** Feeding



PROJECT DETAILS

Database Structure

Horse Table (Continued)

Seen by Vet	Y/N
Seen by Farrier	Y/N
Military/Police Horse	Y/N
ExRaceHorse	Y/N
Deceased	Y/N
Date of death	
Grooming Day	(M-T-W-Th-F)
Pasture	
Behavior Notes	Free form text
Regular Treatment	Y/N
Medical Notes	Free form text
Datetime last updated	
User that made update	(Link to User table)



PROJECT DETAILS

Database Structure

Documents Table

Unique ID	System-generated
Horse ID	(Link to Horse table)
Image	
Document Description	Free form text
Datetime last updated	
User that made change	(Link to User table)

*1-to-many relationship between Horse Table & Documents Table
i.e., a horse can have many related documents

PROJECT DETAILS

Database Structure

Action Taken Table

Unique ID	System-generated
Horse ID	(Link to Horse table)
Treatment	(Link to Treatment table)
Action Taken (Notes)	Free form text
Datetime last updated	
User that made change	(Link to User table)

*1-to-many relationship between Horse Table & Action Taken Table
i.e., a horse can have many treatments administered for it

PROJECT DETAILS

Database Structure

Daily Observations/To-Do Table

Unique ID	System-generated
Notes	Free form text
'To-Do' Status	Y/N
'Done' Status	Y/N
Notify Staff	Y/N
Datetime last updated	
User that made change	(Link to User table)

PROJECT DETAILS

Database Structure

Audit Trail

Datetime

User that made change (Link to User table)

What table was changed

What field was changed

Before and after changes



PROJECT ASSETS

Google Drive

https://drive.google.com/drive/folders/1iy2_QoTHi4Os5vCfkIbtqbURNhryi4rx?usp=sharing

The Google Drive folder includes all assets to be included in the application, including:

- **Horse Log Spreadsheet**
 - Contains all horse data to populate the database
- **Horse Pictures**
 - To include in each horse's file as their "profile picture"
- **Horse Biographies**
 - To include in each horse's file
- **Map**
 - Reference image. Each horse's pasture is identified in the "Field Home" column in the Excel file
- **List of Horses**
 - List of current horses as of January 2026
- **Retirement Home for Horses, Inc. Logo**





University of
Florida

Code for Change
<https://code-4-change.com>

Society of Hispanic Professional Engineers
www.shpeuf.com