Advanced Computer Science Report

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Topic: Animal Care - Get along with Dogs.

App name: Happy Puppy

Description: The Happy Puppy application caters to dog owners to discover all the important knowledge about caring for dogs is explained briefly and assembled at a single location. It focuses on various aspects of dog care and the information specific to types of dog breed. The purpose of this application is for the user to get an overview of canine characteristics and familiarize with the different categories. The user can also look up their own dog's breed to get a better perspective on the personality of their dog's breed and facts about their dog.

User: A Dog owner who is interested to know about dog care.

Objectives:

- To allow the dog owners to understand at a quick glance about the brief introduction to dog care focusing on all the crucial topics.
- To include a variety of dog products and essential tools to assist the user with the needs of their dog, as well as understanding their purpose and significance.
- The information about each specific breed of dog allows the user to understand their dog's personality and learn a few facts about their pet.

Functionality:

Main window: When the application launches the user will see the window containing the title, text , vertical menu of buttons for topics such as,

- Feeding a dog: Information regarding the feeding schedules and needs of a dog according to its age.
- Housing needs of a dog: Insights about a dog's accommodation needs, setting up a canine friendly environment.
- Handling a dog: A big part of caring for a dog includes handling the pet correctly.
- Training a dog: Information about training a dog and why it is necessary.
- Grooming a dog: Insights about different categories of dog grooming including regular and occasional care.
- Medical care for dogs: Explaining the key aspects of medical care for dogs.

Multiple images related to each topic are shown to better understand through visual examples. This window was designed to achieve proximity and reduce the number of clicks, while still maintaining the suitability of the task."

"Essentials for dogs" Window: Following these the next button "Essentials for dogs" opens a new window containing the list of essential items that are required while taking care of dogs. Tooltip saying "filter by essential name" is added as well as headings and titles make the application self-descriptive and very feasible for the user to navigate. The list displays 10 essential items a dog owner must have. The user can filter these items by their names. Each item when clicked shows the images of the items and a short description stating why or how it can be useful for the pet.

"Dog breeds" Window: Lastly, the button named "Dog Breeds" opens a new window consisting of a list of dog breeds. Each breed has its personality traits, their origin, their breed name, the size to which they are fully grown, their lifespan and the energy level of the breed. The user can search for their dog's breed. Each dog has a specific colored coat, nature and features, these are all described in the personality traits part of this window. All the elements of the window, the look and feel is kept identical to each other so as to achieve similarity.

Dialogue Principles: The main window contains the generalized dog care information which directly appears on the screen as soon as the application opens. All the fonts and styles used are consistent and the elements in all three windows are similar.

Gestalt Principles: All the images used have the height and width consistency. The font used is readable to the user and the color combinations used are muted or light colors.

Presentation of information: The font size, font color and the spacing, emphasis on the heading and subheading is done in different but very closely related colors so they resemble a from a same color family. Only one font style is used throughout the application which makes it easier on the eyes of the user.
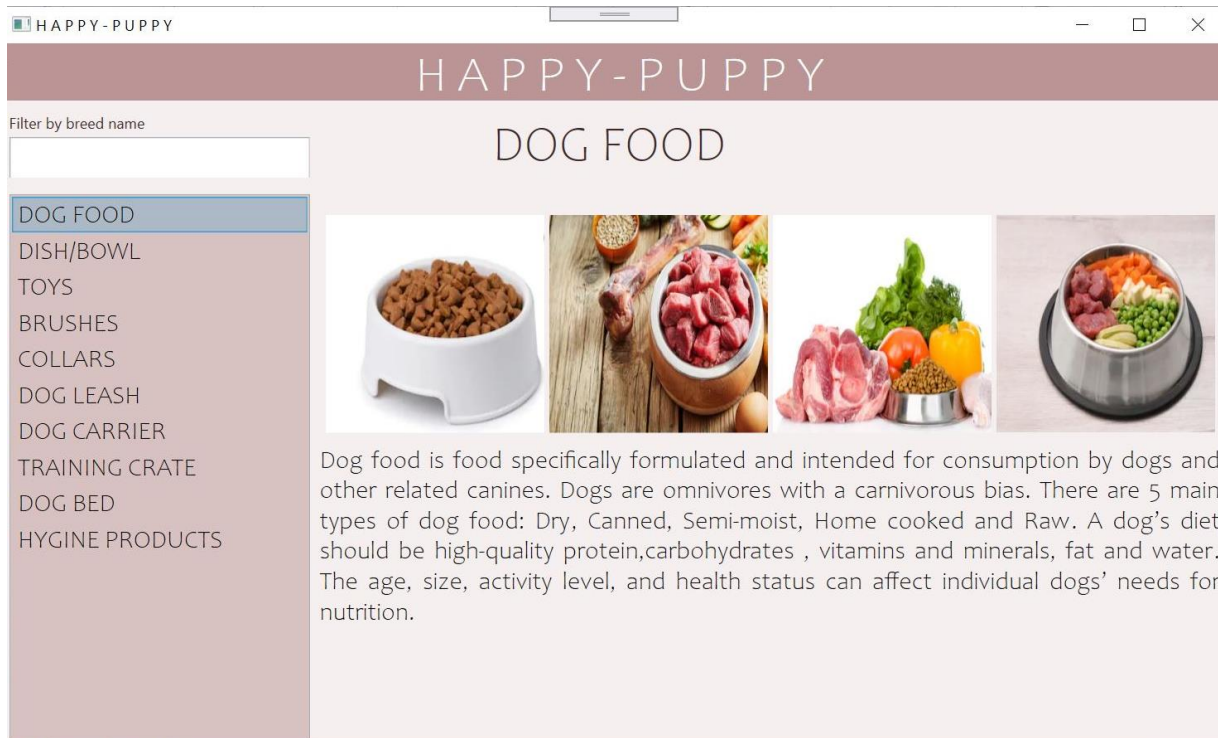
Usability: The sizes of the list boxes, textblocks and the textboxes are consistent throughout the application. The user can enter any dog care category and return to any category at any time, making the application flexible for the user.

Results:

The main window displaying the images, information related to the selected topic. The user can choose from the other available categories.


On clicking the "Essentials for dogs" button the below window appears. This shows a list of essential items, the user can choose from any of these and view the information and related images. The user can filter the items using the filter above the list of items.

HAPPY-PUPPY

DOG FOOD

Filter by breed name

- DOG FOOD
- DISH/BOWL
- TOYS
- BRUSHES
- COLLARS
- DOG LEASH
- DOG CARRIER
- TRAINING CRATE
- DOG BED
- HYGINE PRODUCTS

Dog food is food specifically formulated and intended for consumption by dogs and other related canines. Dogs are omnivores with a carnivorous bias. There are 5 main types of dog food: Dry, Canned, Semi-moist, Home cooked and Raw. A dog's diet should be high-quality protein,carbohydrates , vitamins and minerals, fat and water. The age, size, activity level, and health status can affect individual dogs' needs for nutrition.

When the user navigates to the Dog breeds button in the main window the following window appears. This shows the list of breeds, their personality traits, images of the dogs relevant to the breed and their specific facts.

Initial UI designs and wireframes:
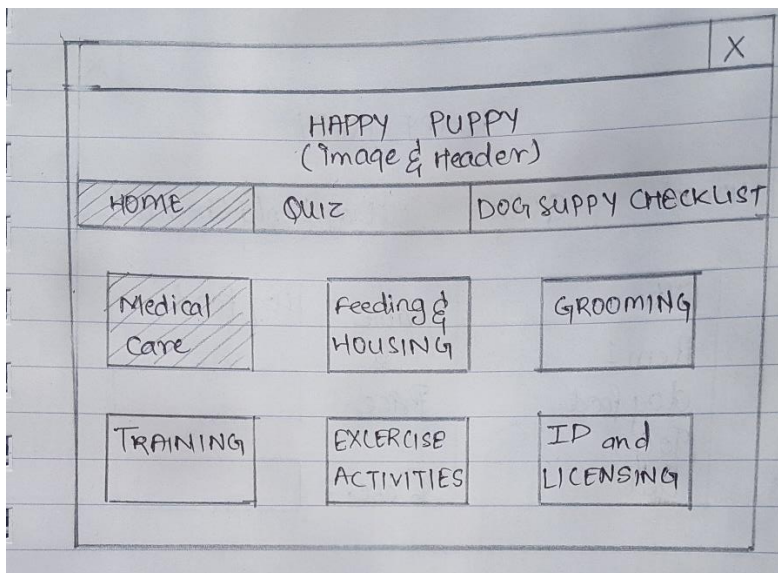
The final UI design: Main Window:

HAPPY PUPPY   ☒

HAPPY PUPPY	
FEEDING	Feeding [Heading]
HANDLING	
GROOMING	Images
HOUSING	Textblock : Description
TRAINING	

Essential for Dogs window:

HAPPY PUPPY   ☒

HAPPY PUPPY	
Filter	Dog Food [Heading]
Dog food	Images
	Textblock : Description

Dog Breeds Window:

A hand-drawn wireframe sketch of an application interface titled "HAPPY PUPPY". It shows a window with a title bar reading "HAPPY PUPPY" and a close (X) button in the top right. Below is a centered heading "HAPPY PUPPY". The layout is split into two columns: the left column contains "Filter", "Boxes", and "Beagle"; the right column contains "Boxes [Heading]", "Images", and "Textblock : Description".

Conclusion:

I am satisfied with technology I have learned and the application I have developed as I could include all the functionalities I decided. The efficiency of the application can be improved, and more features can be added. There is a lot more to learn and improve, and I could surely implement more functionalities in the future.