Dream Dog

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CSCI 499 Sec 1

Introduction

- What is Dream Dog?
- Goal is to find the perfect dog breed for you!
- Meet and greet other locals that have your dream dog
- Interact with other users by sending a ‘bark’

Steps Involved: Website

- Home Page
- Make A Match
- List of Dogs
- Game
- About Us/Contact

Website: Homepage

DreamDog

Home | Make a Match! | List of Dogs | Game | About Us | Contact

Having trouble deciding on what dog you should bring home?

Curious about what dog would make the best friend for you?

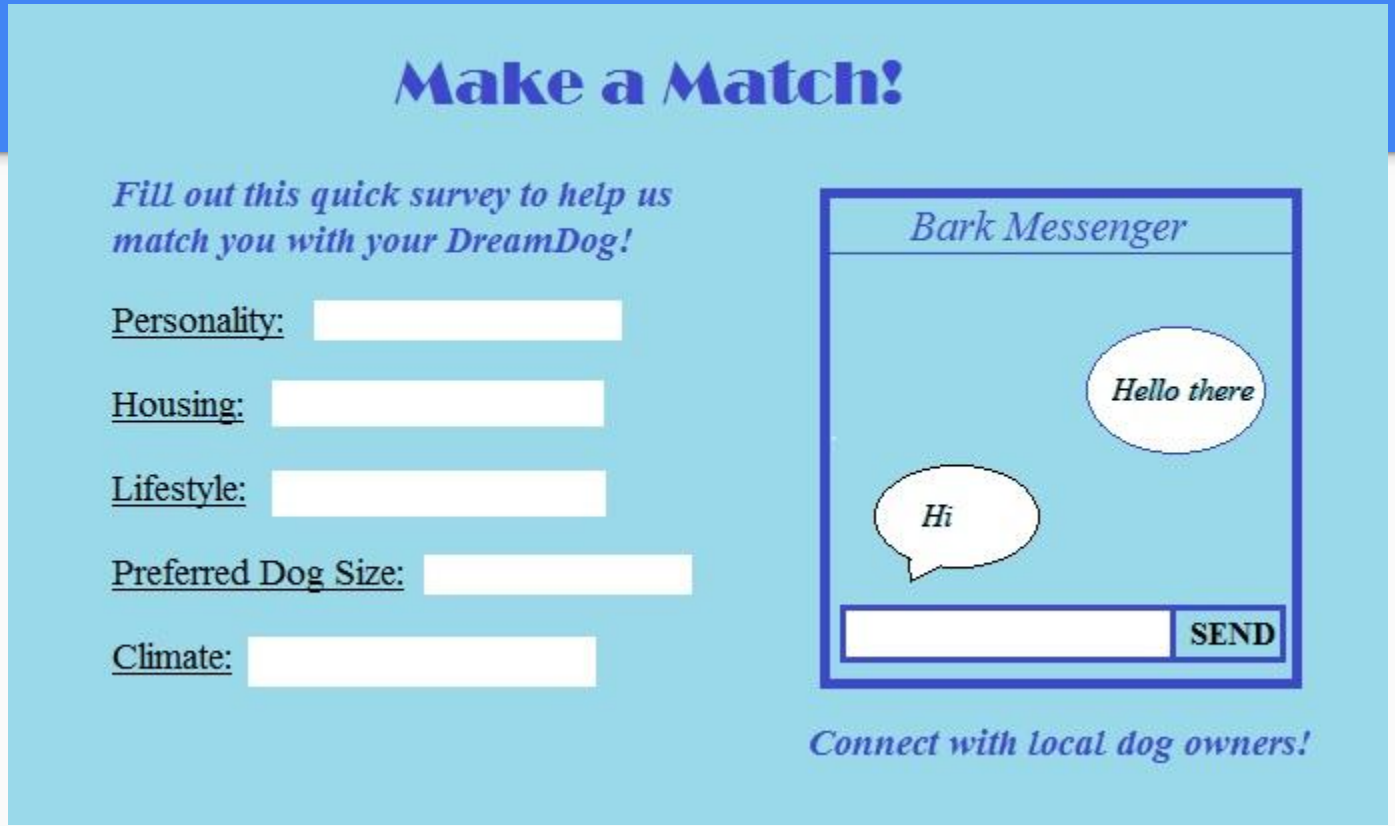
Find the perfect DreamDog for you!

Easily message other dog owners!

Play an interactive game while you browse!

*will implement a 'Log In' feature

Website: Make a Match!



*Implement an 'Enter' button

Website: List of Dogs

List of Dogs

Browse the different types of dog breeds!

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

AFFENPINSCHER

Loyal, curious, famously funny; fearless out of all proportion to their size.

MORE

AFGHAN HOUND

A breed of charming contradictions: independent and aloof, but sweet and profoundly loyal.

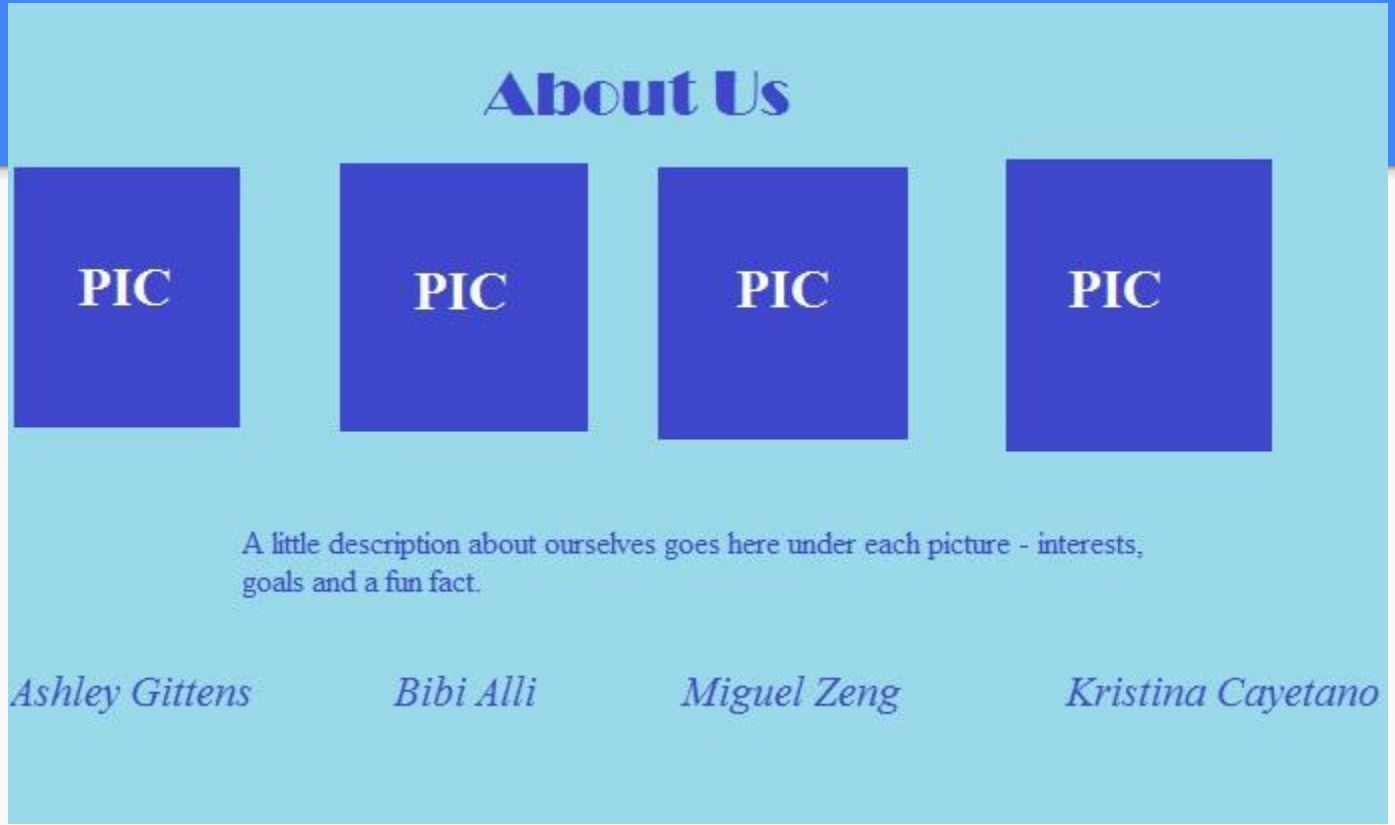
Source: http://www.akc.org/dog-breeds/

Website: Game

Game

Dog Dodge!

Website: About Us



Website: Contact Us

Contact Us

Questions, comments, concerns?

Feel free to contact us by email and we will get back to you within 24 hours!

DreamDog@gmail.com

Game: Dog Dodge

-Feed the dog!

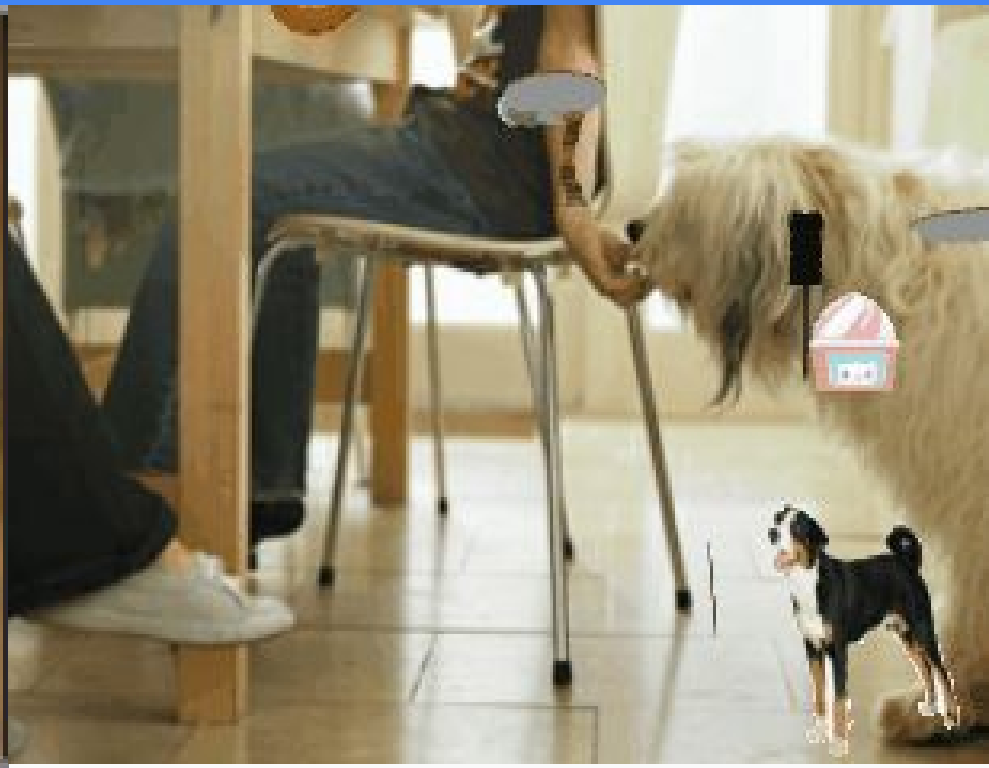
-Catch the food and avoid the plates and knives

-Score is recorded (Scoreboard?)

-Possibly will have different levels

-Made with C# scripts in Unity

Game: Dog Dodge!



Steps Involved: Data

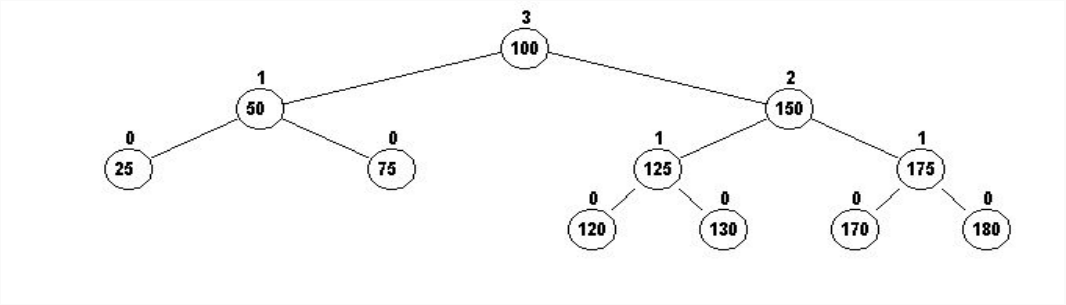
- Database of Dogs from American Kennel Club
- Survey Data from User
- Login / Account
- List of dogs
- Results records
- Log Statistics

Algorithm: Data Involved

- Personality (Confident, Friendly, Loyal, Perky)
- Lifestyle (Sedentary, Moderately Active, Active)
- Housing (Assisted Living, Condominium, Apartment, Patio)
- Climate
- Preferred Dog Size (Small, Medium, Large)

Algorithm: Steps

Implement AVL Tree (height balanced bst)



- public operations: insert(x), remove(x), contains(x), isEmpty( ), makeEmpty( ), printTree( ), getElement( ), getTotalNodes( ), getHeight( )
- additional: Comparable findMaxMatch() //return max Comparable element

Create parser to read the database and construct the the tree accordingly

Algorithm: Steps

Create a class object named DogBreed with private data members

```
string breed;

string personality;
 size_t personality_rate;
string lifestyle;
 size_t lifestyle_rate;
string housing;
 size_t housing_rate;
string climate;
 size_t climate_rate;
string size;
 size_t size_rate;

size_t match = 0;
```

Algorithm: Logic

Each dog breed will be assigned tags and a corresponding rate upon insertion to the tree

ex)

```
n.breed = "siberian husky"

n.personality = "friendly";
        n.personality_rate = 17; //out of 20
n.lifestyle = "active";
        n.lifestyle_rate = 20;
n.housing = "patio";
        n.housing_rate = 12;
n.climate = "winter";
        n.climate_rate = 17;
n.size = "large";
        n.size_rate = 13;

n.match = 0; //initialized at 0
```

Algorithm: Logic

The tag's corresponding rate will be added to the *size_t match* only if chosen by the user

ex)
```
if(user_choice_personality == "friendly") {
        n.match += n.personality_rate;
}
... // do the same thing for other tags
if(user_choice_size == "large") {
        n.match += n.size_rate;
}
```

Once the user has finished the survey/game, Comparable findMaxMatch( ) is called to find dog breed/s with the highest match value.

Tools that will be Used

Languages

Python(data), C++(algorithm), C#(Game), HTML/PHP

Github

Host and repository

Work Distribution

Bibi Alli: Website

Kristina Cayetano: Algorithm (AI)

Ashley Gittens: Game

Miguel Zeng: Database

***Although there are distinct parts we each need to focus on, as a team, we will be helping one another.

Misc.

- Unique DreamDog logo
- Data set and Webpages are subject to change upon encountering problems/errors