

# CUPERTINO PET STORE

Team #3:

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## Application Data:

A Pet class with the following member variables:

- Owner name – primary key (string, e.g. Tom)
- Pet name – secondary key (string, e.g. Jerry)
- Pet age (double, e.g. 2.5)
- Pet type (string, e.g. Cat)
- Pet weight (double, e.g. 4.3)

## Hash Function

```
int key_to_index (const Pet &key, int size {
    string k = key.getName();
    int sum = 0;
    for (int i = 0; k[i]; i++)
        sum += k[i];
    return sum % heapSize;
}
```

## Comment

Our system stores data about a pet store and provides various applications, including inserting a set of data of a new pet, deleting a set of data of a pet, and searching a particular pet by its owner's name. In technical, in our project, both the binary search tree and hash table are ADT (abstract data types), which enhances the reusability of our data system.

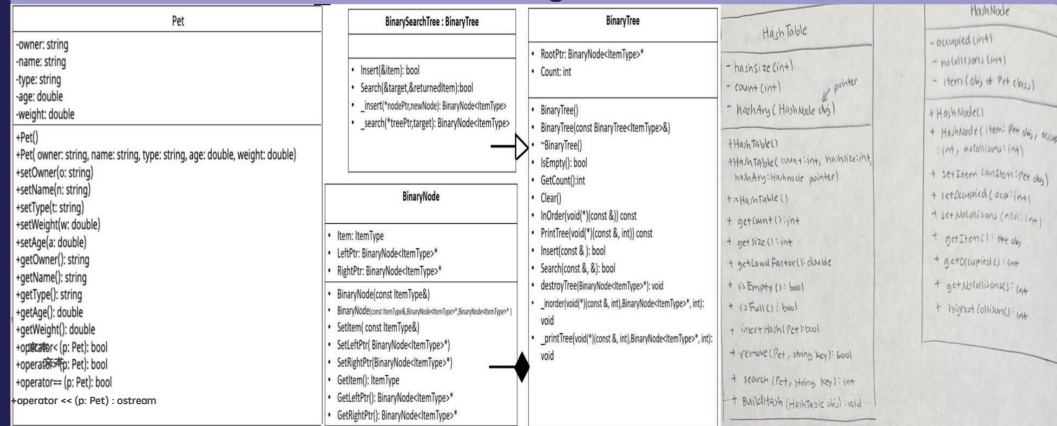
petStore.txt

```
----- Menu -----
A. Add a new data item
B. Add data from an input file
C. Delete Data
D. Find element using primary key
E. List data sorted by the primary key
F. Write data to a file
G. Statistics
H. Help
Z. Undo previous delete
Enter an option(H - for help): h
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Enter an option(H - for help): m
T3 Members:
Sungjun An
Anita Huang
Gezheng Kang
Katie Leong
Juhwan Park
Enter an option(H - for help): s
That is invalid input, try again
Enter an option(H - for help): g
Statistics:
Enter an option(H - for help): q
Goodbye
```

291  
292  
293  
294

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a  
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## UML Diagram



## Structure

