Week4

Top of program
Name
Assignment #
Brief explanation of assignment
Correct spelling, punctuation. No more than 2 sentences.
Don't need date. Don't need to see teacher name.

Container Class - Holds atleast one member variable that is a container.
Container example: array, arrayList, hashmap, queue, stack, etc.
Tangible thing - something that has primitive variables.
Default constructor's typical job is to instantiate the member variables.

Printing is subjective to the user, so objects will never take
userInput, fileInput, or output within an object.

A class can pass an object within it's own functions.
The rule is that you cannot pass objects between
 classes, no matter what.

Dog
Tangible thing
-Setgets, constructors

Cannot read from
file or ask for input
in constructor / tangible
classes.

Daycare
Container
-Constructors, add, remove, modify, find, size, get

Use Ctrl + R to replace syntax.

When defining these classes, always define the bare minimum methods, even if
they are not used.

Okay, so we have to read the data from the file. Put it into the array from the
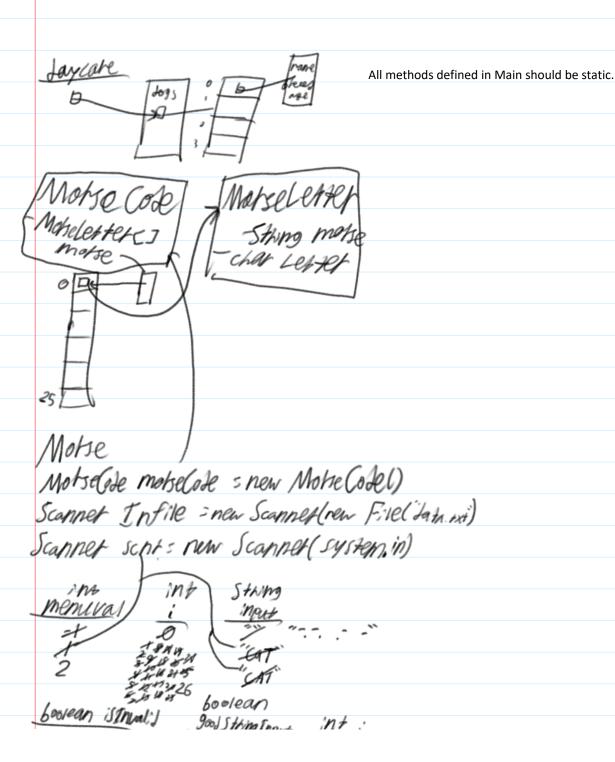container class using add.

Name,
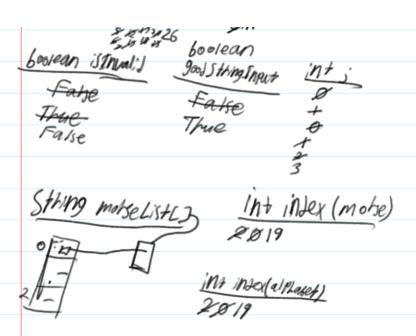Homework #,
Brief description of header.

Main is for some reason automatically named after the project once the project is created (even though my HW2 didn't do that), and that class will be the class that does all of the input and output.

Containers can have member variables that aren't containers.

For tangible things, get returns the data value.
For containers, get returns the index. The function "find" returns the value instead.

All methods defined in Main should be static.

daycare

Morse Code
MorseLetter[]
morse

MorseLetter
String morse
char Letter

Morse
MorseCode morseCode = new MorseCode()
Scanner Infile = new Scanner(new File("data.txt"))
Scanner scnt = new Scanner(system.in)

int
memival

int
i
0

String
input
".-." ".." "-"
"CAT"
"CAT"

boolean isInval()

boolean
goodStringInput

int :

boolean isSmall()   boolean   int i
~~False~~   goodStringInput   0
~~True~~   ~~False~~   +
False   True   0
                                                +
                                                0
                                                +
                                                2
                                                3

String morseList[]   int index (morse)
                           2019

                           int index(alphabet)
                           2019

```
This is the output produced by ChatGPT:

public class CountRanges {
    public static void main(String[] args) {
        int[] inputArray = {5, 15, 25, 35, 8, 18, 28, 9, 19, 29, 40, 45};
        int[] resultArray = countValuesInRanges(inputArray);

        for (int i = 0; i < resultArray.length; i++) {
            System.out.println("Slot " + i + ": " + resultArray[i]);
        }
    }

    public static int[] countValuesInRanges(int[] inputArray) {
        int[] resultArray = new int[4];

        for (int value : inputArray) {
            if (value >= 0 && value <= 10) {
                resultArray[0]++;
            } else if (value >= 11 && value <= 20) {
                resultArray[1]++;
            } else if (value >= 21 && value <= 30) {
                resultArray[2]++;
            } else {
                resultArray[3]++;
            }
        }

        return resultArray;
    }
}
```

inputArray   inputArray   resultArray   resultArray

value   i
0 8 15 25 35   0 1 2 3

```java
import java.io.IOException;
import java.util.Scanner;
import java.io.File;


public class Morse {
    public static void main(String[] args) throws IOException {
        Scanner Infile = new Scanner(new File("data.txt"));
        Scanner scnt = new Scanner(System.in);
        MorseCode morse = new MorseCode();
        int menuVal = 1;



        sout("1: Alpha to Morse");
        sout("2: Morse to Alpha");
        sout("3: Exit");
        menuVal = scnt.nextInt();
        while( menuVal != 3) {
            if (menuVal == 1) {
                // convert

            }
            elif (menuVal == 2) {
                // convert

            }
            elif (menuVal < 1 || menuVal > 3) {
                sout("Bad input");
```

```
if (menuVal < 1 || menuVal > 5) {
    sout ("Bad input);
}

menuVal = scnt.nextInt();
```