

2.11

Instead of using a loop and using the charAt for this, I thought of a way which I though may be more efficient using the substring to cut the string to the correct length.

```
CS-2420 > J Assignment_02_11.java > Assignment_02_11 > isAPrefix(String, String)
1
2 public class Assignment_02_11 {
3
4     public static boolean isAPrefix(String prefix, String s) {
5         //It is really tempting to use the existing isAPrefix method of the class string....
6         //Hopefully it is not too much trouble for you to use a loop instead?
7         if(prefix.length() < s.length()){
8             String tempString = s.substring(beginIndex:0, prefix.length());
9             if (tempString.equals(prefix)){
10                 return true;
11             }else {
12                 return false;
13             }
14         }else {
15             return false;
16         }
17     }
18
19     Run | Debug
20     public static void main(String [] args) {
```

PROBLEMS 17 OUTPUT DEBUG CONSOLE TERMINAL COMMENTS

Install the latest PowerShell for new features and improvements! <https://aka.ms/PSWindows>

```
PS C:\Users\easton\OneDrive\Documents\CS 2420\CS-2420> & 'C:\Program Files\Java\jdk-20\bin\java.exe' '--enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\easton\AppData\Roaming\Code\User\workspaceStorage\8cae6f5504b120337a47413144867805\redhat.java\jdt_ws\CS-2420_465cd918\bin' 'Assignment_02_11'
Starting tests
Ending tests: No red output in eclipse means success
PS C:\Users\easton\OneDrive\Documents\CS 2420\CS-2420>
```

2.14

Here, I used very similar code on all 4 of these methods. We just set the sum variable to 0 and then iterate through the array and add each number to the sum. If we are calculating the average then we just take the length of the array and use that to divide the sum.

```
CS-2420 > J Assignment_02_14_15.java > Assignment_02_14_15 > average(int[])

4      public static int sum(int [] a) {
5          int sum = 0;
6          for (int i = 0; i < a.length; i++) {
7              sum = sum + a[i];
8          }
9          return sum;
10     }
11     public static int sum(int [][] a) {
12         int sum = 0;
13         for (int i = 0; i < a.length; i++) {
14             for (int j = 0; j < a[i].length; j++) {
15                 sum = sum + a[i][j];
16             }
17         }
18         return sum;
19     }
20     public static int average(int [] a) {
21         int sum = 0;
22         for (int i = 0; i < a.length; i++) {
23             sum = sum + a[i];
24         }
25         return sum / a.length;
26     }
27 }

PROBLEMS 17 OUTPUT DEBUG CONSOLE TERMINAL COMMENTS +
Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\east0\OneDrive\Documents\CS 2420\CS-2420> & 'C:\Program Files\Java\jdk-20\bin\java.exe' '--enable-pr
eview' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\east0\AppData\Roaming\Code\User\workspaceStorage
\8cae6f5504b120337a47413144867805\redhat.java\jdt_ws\CS-2420_465cd918\bin' 'Assignment_02_14_15'
Starting tests
Ending tests: No red output in eclipse means success
PS C:\Users\east0\OneDrive\Documents\CS 2420\CS-2420>
```

2.34

Here, I made use of for loops to check each index in the array that we took from the file information. We then compared each number to check who the oldest was and what their index was in the array.

```
CS-2420 > J Assignment_02_34_01.java > Assignment_02_34_01 > main(String[])

5  public class Assignment_02_34_01 {
    Run | Debug
6      public static void main(String[] args) {
7          ArrayList<String> name = new ArrayList<String>();
8          ArrayList<String> ageString = new ArrayList<String>();
9          ArrayList<Integer> ageInt = new ArrayList<Integer>();
10         try{
11             Scanner s = new Scanner(new File(pathname:"Assignment_02_34_large.txt"));
12             while (s.hasNext()){
13                 name.add(s.next() + " " + s.next());
14                 ageString.add(s.next());
15             }
16         }catch(Exception e){
17             System.out.println(e);
18         }
19     }
20
21     //adding string age to int arraylist
22     for (int i = 0; i < ageString.size(); i++) {
23         ageInt.add(Integer.parseInt(ageString.get(i)));
    }
}

PROBLEMS 17 OUTPUT DEBUG CONSOLE TERMINAL COMMENTS

\8cae6f5504b120337a47413144867805\redhat.java\jdt_ws\CS-2420_465cd918\bin' 'Assignment_02_34_01'
The oldest person is: Prue Karstens 119
PS C:\Users\east0\OneDrive\Documents\CS 2420\CS-2420> c::; cd 'c:\Users\east0\OneDrive\Documents\CS 2420\CS-2420'
; & 'C:\Program Files\Java\jdk-20\bin\java.exe' '--enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp
' 'C:\Users\east0\AppData\Roaming\Code\User\workspaceStorage\8cae6f5504b120337a47413144867805\redhat.java\jdt_ws\
CS-2420_465cd918\bin' 'Assignment_02_34_01'
The oldest person is: Prue Karstens 119
PS C:\Users\east0\OneDrive\Documents\CS 2420\CS-2420>
```

Getting the console to print all people if their ages were a tie was a little more involved but what we were able to do is get the max age and then run back through the array and check to see where each instance of that particular age shows up.

Assignment_02_34_01.java UAssignment_02_34_02.java 1, U XAssignment_02_14_15.java U

CS-2420 > Assignment_02_34_02.java > Assignment_02_34_02 > main(String[])

1import java.io.File;

2import java.util.ArrayList;

3import java.util.Scanner;

4

5public class Assignment_02_34_02 {

6 public static void main(String[] args) {

7 ArrayList<String> name = new ArrayList<String>();

8 ArrayList<String> ageString = new ArrayList<String>();

9 ArrayList<Integer> ageInt = new ArrayList<Integer>();

10 ArrayList<Integer> maxAgeIndexes = new ArrayList<Integer>();

11 }

PROBLEMS17

OUTPUT

DEBUG CONSOLE

TERMINAL

COMMENTS

Prue Karstens

Jaine Kleespies

Jessi Aviles

Kylila Tope

Phylis Groff

Karlee Corbley

Miof Leofsky

Dara Tartaglione

Shelby Modest

Peri Ehrgott

Leena Dimitri

Zulema Bartoldus

Loleta Her

Catina Schueren

Tamqrah Hanebutt

Brande Niemeier

Terry Standifur

Tillie Biddy

Kimmy Mccalebb

Run: t

Run: A

Run: A

Run: A

Run: A