Gebze Technical University
Computer Engineering

CSE 222 - 2019 Spring

HOMEWORK 2 REPORT

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1 INTRODUCTION

1.1 Problem Definition

Implementing the single linked list structure mechanism for the experiment data.

1.2 System Requirements

Hardware requirements

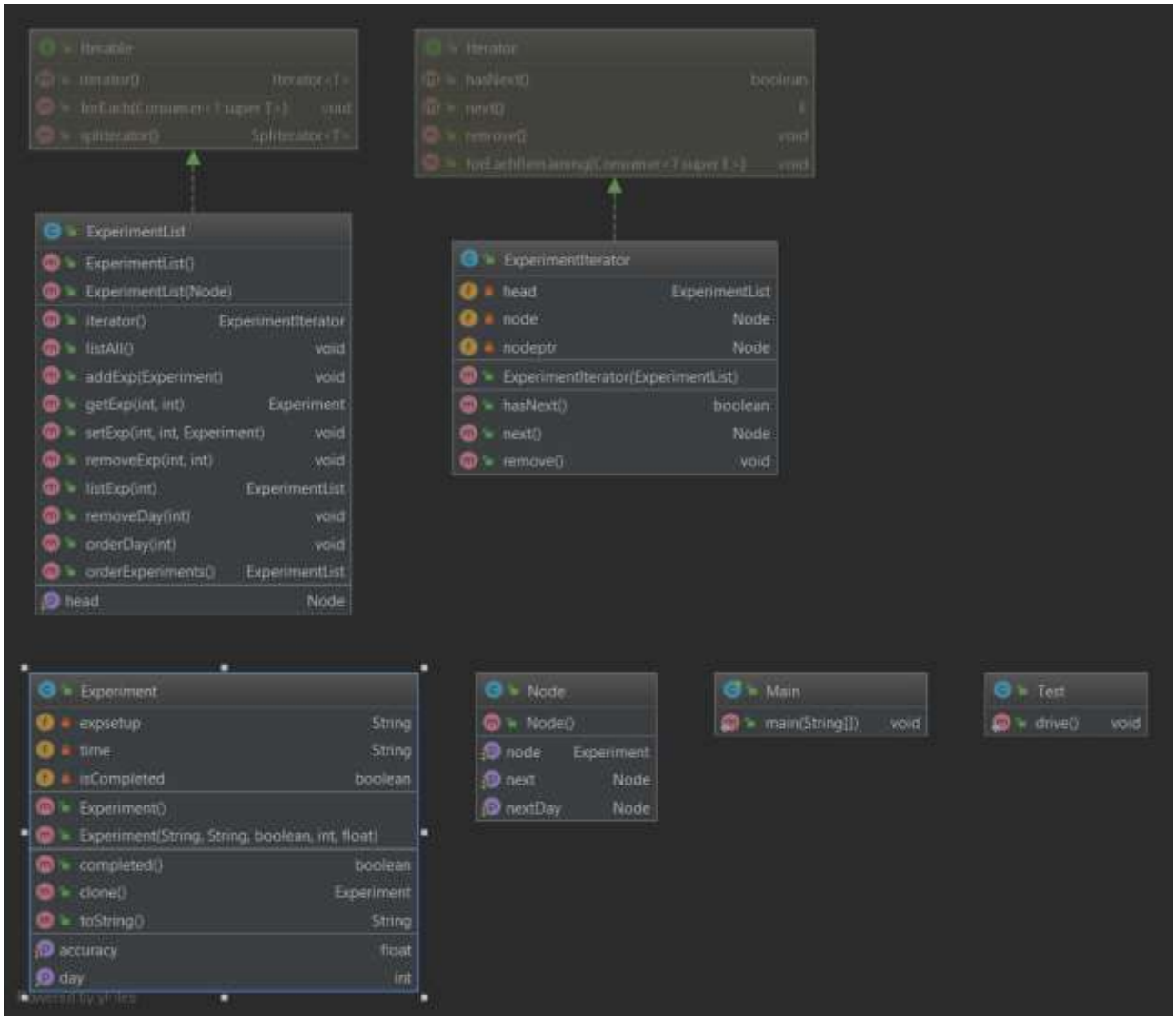
- 1 GB RAM minimum, 2 GB RAM recommended
- 300 MB hard disk space + at least 1 GB for caches
- 1024x768 minimum screen resolution

Windows

- Microsoft Windows 10/8/7/Vista/2003/XP (incl.64-bit)
- To develop Java applications with IntelliJ IDEA, install JDK version according to your project requirements.

2 METHOD

2.1 Class Diagrams



2.2 Problem Solution Approach

Since it is a single linked list I needed to hold a pointer to the head of the list whenever it is required to manipulate the list. And I needed to check if a node is head of the list to update the head of the list dynamically. I implemented selection sort algorithm for sorting all the list and part of the list in a given day, so that my sorting functions have Ω(n^2) time complexity both (((n-1)*n)/2).

That’s all from me and this work ☺

3 RESULT

3.1 Test Cases

```
import java.util.Random;

public class Test {
    public static void drive(){
        try{
            ExperimentList list = new ExperimentList();
            Random generator = new Random();
            generator.setSeed(3);
            boolean completed = true;
            float acc;
            int day;
            String time = "timeInfo";
            for(int i=0; i<20; i++)
            {
                System.out.println("----------------------");
                day =  generator.nextInt(4) ;
                String setup = "setup"+Integer.toString(i);
                acc = (float) (i*0.1);
                Experiment e = new Experiment(setup, time , completed, day,
acc);
                System.out.println("Add new experiment:");
                System.out.println(e.toString());
                list.addExp(e);
                list.listAll();
            }

            System.out.println("----------------------");
            System.out.println("getExp(0,3) Result:");
            Experiment e = list.getExp(0,3);
            System.out.println(e.toString());
            System.out.println("----------------------");
            System.out.println("setExp(0,3), accuracy=1.0");
            e.setAccuracy((float) 1.0);
            list.setExp(0,3, e);
            e = list.getExp(0,3);
            System.out.println("----------------------");
            System.out.println("getExp Result:");
            e = list.getExp(0,3);
            System.out.println(e.toString());
            System.out.println("----------------------");
            System.out.println("listExp(0) Result:");
            list.listExp(0);
            System.out.println("----------------------");
            System.out.println("removeExp(0,0) Result:");
            list.removeExp(0, 0);
            list.listAll();
            System.out.println("----------------------");
            System.out.println("removeExp(1,0) Result:");
            list.removeExp(1, 0);
            list.listAll();
            System.out.println("----------------------");
            System.out.println("removeExp(1,) Result:");
            list.removeExp(1, 0);
            list.listAll();
            System.out.println("----------------------");
            System.out.println("removeExp(3,6) Result:");
            list.removeExp(3, 6);
```

```
            list.listAll();
            System.out.println("----------------------");
            System.out.println("orderExperiment Result:");
            ExperimentList orderedList = list.orderExperiments();

            ExperimentIterator itr =  orderedList.iterator();
            while(itr.hasNext()) {
                System.out.println(itr.next().getNode().toString());
            }
        }
        catch (Exception e){
            System.err.println("Oops!\n");
        }
    }
}
```

3.2 Running Results

"C:\Program Files\Java\jdk-11.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2018.3.5\lib\idea_rt.jar=54393:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2018.3.5\bin" -Dfile.encoding=UTF-8 -classpath C:\Users\Tayfun\IdeaProjects\161044083_hw3_cse222\out\production\161044083_hw3_cse222 Main
---
Add new experiment:
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
List experiment view:
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
List day view:
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}

Add new experiment:
Experiment{setup='setup1', day=2, time='timeInfo', accuracy=0.1, completed=true}
List experiment view:
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup1', day=2, time='timeInfo', accuracy=0.1, completed=true}
List day view:
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}

Add new experiment:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
List experiment view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup1', day=2, time='timeInfo', accuracy=0.1, completed=true}
List day view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}

Add new experiment:
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}
List experiment view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}

Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup1', day=2, time='timeInfo', accuracy=0.1, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}
List day view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}

Add new experiment:
Experiment{setup='setup4', day=0, time='timeInfo', accuracy=0.4, completed=true}
List experiment view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup4', day=0, time='timeInfo', accuracy=0.4, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup1', day=2, time='timeInfo', accuracy=0.1, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}
List day view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}

Add new experiment:
Experiment{setup='setup5', day=2, time='timeInfo', accuracy=0.5, completed=true}
List experiment view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup4', day=0, time='timeInfo', accuracy=0.4, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup1', day=2, time='timeInfo', accuracy=0.1, completed=true}
Experiment{setup='setup5', day=2, time='timeInfo', accuracy=0.5, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}
List day view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}

Add new experiment:
Experiment{setup='setup6', day=3, time='timeInfo', accuracy=0.6, completed=true}
List experiment view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup4', day=0, time='timeInfo', accuracy=0.4, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup1', day=2, time='timeInfo', accuracy=0.1, completed=true}
Experiment{setup='setup5', day=2, time='timeInfo', accuracy=0.5, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}
Experiment{setup='setup6', day=3, time='timeInfo', accuracy=0.6, completed=true}
List day view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}

Add new experiment:
Experiment{setup='setup7', day=2, time='timeInfo', accuracy=0.7, completed=true}

List experiment view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup4', day=0, time='timeInfo', accuracy=0.4, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup1', day=2, time='timeInfo', accuracy=0.1, completed=true}
Experiment{setup='setup5', day=2, time='timeInfo', accuracy=0.5, completed=true}
Experiment{setup='setup7', day=2, time='timeInfo', accuracy=0.7, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}
Experiment{setup='setup6', day=3, time='timeInfo', accuracy=0.6, completed=true}
List day view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}

Add new experiment:
Experiment{setup='setup8', day=0, time='timeInfo', accuracy=0.8, completed=true}
List experiment view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup4', day=0, time='timeInfo', accuracy=0.4, completed=true}
Experiment{setup='setup8', day=0, time='timeInfo', accuracy=0.8, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup1', day=2, time='timeInfo', accuracy=0.1, completed=true}
Experiment{setup='setup5', day=2, time='timeInfo', accuracy=0.5, completed=true}
Experiment{setup='setup7', day=2, time='timeInfo', accuracy=0.7, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}
Experiment{setup='setup6', day=3, time='timeInfo', accuracy=0.6, completed=true}
List day view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}

Add new experiment:
Experiment{setup='setup9', day=3, time='timeInfo', accuracy=0.9, completed=true}
List experiment view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup4', day=0, time='timeInfo', accuracy=0.4, completed=true}
Experiment{setup='setup8', day=0, time='timeInfo', accuracy=0.8, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup1', day=2, time='timeInfo', accuracy=0.1, completed=true}
Experiment{setup='setup5', day=2, time='timeInfo', accuracy=0.5, completed=true}
Experiment{setup='setup7', day=2, time='timeInfo', accuracy=0.7, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}
Experiment{setup='setup6', day=3, time='timeInfo', accuracy=0.6, completed=true}
Experiment{setup='setup9', day=3, time='timeInfo', accuracy=0.9, completed=true}
List day view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}

Add new experiment:
Experiment{setup='setup10', day=2, time='timeInfo', accuracy=1.0, completed=true}
List experiment view:

Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup4', day=0, time='timeInfo', accuracy=0.4, completed=true}
Experiment{setup='setup8', day=0, time='timeInfo', accuracy=0.8, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup1', day=2, time='timeInfo', accuracy=0.1, completed=true}
Experiment{setup='setup5', day=2, time='timeInfo', accuracy=0.5, completed=true}
Experiment{setup='setup7', day=2, time='timeInfo', accuracy=0.7, completed=true}
Experiment{setup='setup10', day=2, time='timeInfo', accuracy=1.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}
Experiment{setup='setup6', day=3, time='timeInfo', accuracy=0.6, completed=true}
Experiment{setup='setup9', day=3, time='timeInfo', accuracy=0.9, completed=true}
List day view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}

Add new experiment:
Experiment{setup='setup11', day=1, time='timeInfo', accuracy=1.1, completed=true}
List experiment view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup4', day=0, time='timeInfo', accuracy=0.4, completed=true}
Experiment{setup='setup8', day=0, time='timeInfo', accuracy=0.8, completed=true}
Experiment{setup='setup11', day=1, time='timeInfo', accuracy=1.1, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup1', day=2, time='timeInfo', accuracy=0.1, completed=true}
Experiment{setup='setup5', day=2, time='timeInfo', accuracy=0.5, completed=true}
Experiment{setup='setup7', day=2, time='timeInfo', accuracy=0.7, completed=true}
Experiment{setup='setup10', day=2, time='timeInfo', accuracy=1.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}
Experiment{setup='setup6', day=3, time='timeInfo', accuracy=0.6, completed=true}
Experiment{setup='setup9', day=3, time='timeInfo', accuracy=0.9, completed=true}
List day view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup11', day=1, time='timeInfo', accuracy=1.1, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}

Add new experiment:
Experiment{setup='setup12', day=3, time='timeInfo', accuracy=1.2, completed=true}
List experiment view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup4', day=0, time='timeInfo', accuracy=0.4, completed=true}
Experiment{setup='setup8', day=0, time='timeInfo', accuracy=0.8, completed=true}
Experiment{setup='setup11', day=1, time='timeInfo', accuracy=1.1, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup1', day=2, time='timeInfo', accuracy=0.1, completed=true}
Experiment{setup='setup5', day=2, time='timeInfo', accuracy=0.5, completed=true}
Experiment{setup='setup7', day=2, time='timeInfo', accuracy=0.7, completed=true}
Experiment{setup='setup10', day=2, time='timeInfo', accuracy=1.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}
Experiment{setup='setup6', day=3, time='timeInfo', accuracy=0.6, completed=true}
Experiment{setup='setup9', day=3, time='timeInfo', accuracy=0.9, completed=true}

Experiment{setup='setup12', day=3, time='timeInfo', accuracy=1.2, completed=true}
List day view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup11', day=1, time='timeInfo', accuracy=1.1, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}

Add new experiment:
Experiment{setup='setup13', day=0, time='timeInfo', accuracy=1.3, completed=true}
List experiment view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup4', day=0, time='timeInfo', accuracy=0.4, completed=true}
Experiment{setup='setup8', day=0, time='timeInfo', accuracy=0.8, completed=true}
Experiment{setup='setup13', day=0, time='timeInfo', accuracy=1.3, completed=true}
Experiment{setup='setup11', day=1, time='timeInfo', accuracy=1.1, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup1', day=2, time='timeInfo', accuracy=0.1, completed=true}
Experiment{setup='setup5', day=2, time='timeInfo', accuracy=0.5, completed=true}
Experiment{setup='setup7', day=2, time='timeInfo', accuracy=0.7, completed=true}
Experiment{setup='setup10', day=2, time='timeInfo', accuracy=1.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}
Experiment{setup='setup6', day=3, time='timeInfo', accuracy=0.6, completed=true}
Experiment{setup='setup9', day=3, time='timeInfo', accuracy=0.9, completed=true}
Experiment{setup='setup12', day=3, time='timeInfo', accuracy=1.2, completed=true}
List day view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup11', day=1, time='timeInfo', accuracy=1.1, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}

Add new experiment:
Experiment{setup='setup14', day=0, time='timeInfo', accuracy=1.4, completed=true}
List experiment view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup4', day=0, time='timeInfo', accuracy=0.4, completed=true}
Experiment{setup='setup8', day=0, time='timeInfo', accuracy=0.8, completed=true}
Experiment{setup='setup13', day=0, time='timeInfo', accuracy=1.3, completed=true}
Experiment{setup='setup14', day=0, time='timeInfo', accuracy=1.4, completed=true}
Experiment{setup='setup11', day=1, time='timeInfo', accuracy=1.1, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup1', day=2, time='timeInfo', accuracy=0.1, completed=true}
Experiment{setup='setup5', day=2, time='timeInfo', accuracy=0.5, completed=true}
Experiment{setup='setup7', day=2, time='timeInfo', accuracy=0.7, completed=true}
Experiment{setup='setup10', day=2, time='timeInfo', accuracy=1.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}
Experiment{setup='setup6', day=3, time='timeInfo', accuracy=0.6, completed=true}
Experiment{setup='setup9', day=3, time='timeInfo', accuracy=0.9, completed=true}
Experiment{setup='setup12', day=3, time='timeInfo', accuracy=1.2, completed=true}
List day view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup11', day=1, time='timeInfo', accuracy=1.1, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}

Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}

Add new experiment:
Experiment{setup='setup15', day=1, time='timeInfo', accuracy=1.5, completed=true}
List experiment view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup4', day=0, time='timeInfo', accuracy=0.4, completed=true}
Experiment{setup='setup8', day=0, time='timeInfo', accuracy=0.8, completed=true}
Experiment{setup='setup13', day=0, time='timeInfo', accuracy=1.3, completed=true}
Experiment{setup='setup14', day=0, time='timeInfo', accuracy=1.4, completed=true}
Experiment{setup='setup11', day=1, time='timeInfo', accuracy=1.1, completed=true}
Experiment{setup='setup15', day=1, time='timeInfo', accuracy=1.5, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup1', day=2, time='timeInfo', accuracy=0.1, completed=true}
Experiment{setup='setup5', day=2, time='timeInfo', accuracy=0.5, completed=true}
Experiment{setup='setup7', day=2, time='timeInfo', accuracy=0.7, completed=true}
Experiment{setup='setup10', day=2, time='timeInfo', accuracy=1.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}
Experiment{setup='setup6', day=3, time='timeInfo', accuracy=0.6, completed=true}
Experiment{setup='setup9', day=3, time='timeInfo', accuracy=0.9, completed=true}
Experiment{setup='setup12', day=3, time='timeInfo', accuracy=1.2, completed=true}
List day view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup11', day=1, time='timeInfo', accuracy=1.1, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}

Add new experiment:
Experiment{setup='setup16', day=3, time='timeInfo', accuracy=1.6, completed=true}
List experiment view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup4', day=0, time='timeInfo', accuracy=0.4, completed=true}
Experiment{setup='setup8', day=0, time='timeInfo', accuracy=0.8, completed=true}
Experiment{setup='setup13', day=0, time='timeInfo', accuracy=1.3, completed=true}
Experiment{setup='setup14', day=0, time='timeInfo', accuracy=1.4, completed=true}
Experiment{setup='setup11', day=1, time='timeInfo', accuracy=1.1, completed=true}
Experiment{setup='setup15', day=1, time='timeInfo', accuracy=1.5, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup1', day=2, time='timeInfo', accuracy=0.1, completed=true}
Experiment{setup='setup5', day=2, time='timeInfo', accuracy=0.5, completed=true}
Experiment{setup='setup7', day=2, time='timeInfo', accuracy=0.7, completed=true}
Experiment{setup='setup10', day=2, time='timeInfo', accuracy=1.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}
Experiment{setup='setup6', day=3, time='timeInfo', accuracy=0.6, completed=true}
Experiment{setup='setup9', day=3, time='timeInfo', accuracy=0.9, completed=true}
Experiment{setup='setup12', day=3, time='timeInfo', accuracy=1.2, completed=true}
Experiment{setup='setup16', day=3, time='timeInfo', accuracy=1.6, completed=true}
List day view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup11', day=1, time='timeInfo', accuracy=1.1, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}

Add new experiment:
Experiment{setup='setup17', day=0, time='timeInfo', accuracy=1.7, completed=true}
List experiment view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup4', day=0, time='timeInfo', accuracy=0.4, completed=true}
Experiment{setup='setup8', day=0, time='timeInfo', accuracy=0.8, completed=true}
Experiment{setup='setup13', day=0, time='timeInfo', accuracy=1.3, completed=true}
Experiment{setup='setup14', day=0, time='timeInfo', accuracy=1.4, completed=true}
Experiment{setup='setup17', day=0, time='timeInfo', accuracy=1.7, completed=true}
Experiment{setup='setup11', day=1, time='timeInfo', accuracy=1.1, completed=true}
Experiment{setup='setup15', day=1, time='timeInfo', accuracy=1.5, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup1', day=2, time='timeInfo', accuracy=0.1, completed=true}
Experiment{setup='setup5', day=2, time='timeInfo', accuracy=0.5, completed=true}
Experiment{setup='setup7', day=2, time='timeInfo', accuracy=0.7, completed=true}
Experiment{setup='setup10', day=2, time='timeInfo', accuracy=1.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}
Experiment{setup='setup6', day=3, time='timeInfo', accuracy=0.6, completed=true}
Experiment{setup='setup9', day=3, time='timeInfo', accuracy=0.9, completed=true}
Experiment{setup='setup12', day=3, time='timeInfo', accuracy=1.2, completed=true}
Experiment{setup='setup16', day=3, time='timeInfo', accuracy=1.6, completed=true}
List day view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup11', day=1, time='timeInfo', accuracy=1.1, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}

Add new experiment:
Experiment{setup='setup18', day=3, time='timeInfo', accuracy=1.8, completed=true}
List experiment view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup4', day=0, time='timeInfo', accuracy=0.4, completed=true}
Experiment{setup='setup8', day=0, time='timeInfo', accuracy=0.8, completed=true}
Experiment{setup='setup13', day=0, time='timeInfo', accuracy=1.3, completed=true}
Experiment{setup='setup14', day=0, time='timeInfo', accuracy=1.4, completed=true}
Experiment{setup='setup17', day=0, time='timeInfo', accuracy=1.7, completed=true}
Experiment{setup='setup11', day=1, time='timeInfo', accuracy=1.1, completed=true}
Experiment{setup='setup15', day=1, time='timeInfo', accuracy=1.5, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup1', day=2, time='timeInfo', accuracy=0.1, completed=true}
Experiment{setup='setup5', day=2, time='timeInfo', accuracy=0.5, completed=true}
Experiment{setup='setup7', day=2, time='timeInfo', accuracy=0.7, completed=true}
Experiment{setup='setup10', day=2, time='timeInfo', accuracy=1.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}
Experiment{setup='setup6', day=3, time='timeInfo', accuracy=0.6, completed=true}
Experiment{setup='setup9', day=3, time='timeInfo', accuracy=0.9, completed=true}
Experiment{setup='setup12', day=3, time='timeInfo', accuracy=1.2, completed=true}
Experiment{setup='setup16', day=3, time='timeInfo', accuracy=1.6, completed=true}
Experiment{setup='setup18', day=3, time='timeInfo', accuracy=1.8, completed=true}
List day view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}

Experiment{setup='setup11', day=1, time='timeInfo', accuracy=1.1, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}

Add new experiment:
Experiment{setup='setup19', day=3, time='timeInfo', accuracy=1.9, completed=true}
List experiment view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup4', day=0, time='timeInfo', accuracy=0.4, completed=true}
Experiment{setup='setup8', day=0, time='timeInfo', accuracy=0.8, completed=true}
Experiment{setup='setup13', day=0, time='timeInfo', accuracy=1.3, completed=true}
Experiment{setup='setup14', day=0, time='timeInfo', accuracy=1.4, completed=true}
Experiment{setup='setup17', day=0, time='timeInfo', accuracy=1.7, completed=true}
Experiment{setup='setup11', day=1, time='timeInfo', accuracy=1.1, completed=true}
Experiment{setup='setup15', day=1, time='timeInfo', accuracy=1.5, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup1', day=2, time='timeInfo', accuracy=0.1, completed=true}
Experiment{setup='setup5', day=2, time='timeInfo', accuracy=0.5, completed=true}
Experiment{setup='setup7', day=2, time='timeInfo', accuracy=0.7, completed=true}
Experiment{setup='setup10', day=2, time='timeInfo', accuracy=1.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}
Experiment{setup='setup6', day=3, time='timeInfo', accuracy=0.6, completed=true}
Experiment{setup='setup9', day=3, time='timeInfo', accuracy=0.9, completed=true}
Experiment{setup='setup12', day=3, time='timeInfo', accuracy=1.2, completed=true}
Experiment{setup='setup16', day=3, time='timeInfo', accuracy=1.6, completed=true}
Experiment{setup='setup18', day=3, time='timeInfo', accuracy=1.8, completed=true}
Experiment{setup='setup19', day=3, time='timeInfo', accuracy=1.9, completed=true}
List day view:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup11', day=1, time='timeInfo', accuracy=1.1, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}
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getExp(0,3) Result:
Experiment{setup='setup13', day=0, time='timeInfo', accuracy=1.3, completed=true}
---
setExp(0,3), accuracy=1.0
---
getExp Result:
Experiment{setup='setup13', day=0, time='timeInfo', accuracy=1.0, completed=true}
---
listExp(0) Result:
Experiment{setup='setup2', day=0, time='timeInfo', accuracy=0.2, completed=true}
Experiment{setup='setup4', day=0, time='timeInfo', accuracy=0.4, completed=true}
Experiment{setup='setup8', day=0, time='timeInfo', accuracy=0.8, completed=true}
Experiment{setup='setup13', day=0, time='timeInfo', accuracy=1.0, completed=true}
Experiment{setup='setup14', day=0, time='timeInfo', accuracy=1.4, completed=true}
Experiment{setup='setup17', day=0, time='timeInfo', accuracy=1.7, completed=true}
---
removeExp(0,0) Result:
List experiment view:
Experiment{setup='setup4', day=0, time='timeInfo', accuracy=0.4, completed=true}

Experiment{setup='setup8', day=0, time='timeInfo', accuracy=0.8, completed=true}
Experiment{setup='setup13', day=0, time='timeInfo', accuracy=1.0, completed=true}
Experiment{setup='setup14', day=0, time='timeInfo', accuracy=1.4, completed=true}
Experiment{setup='setup17', day=0, time='timeInfo', accuracy=1.7, completed=true}
Experiment{setup='setup11', day=1, time='timeInfo', accuracy=1.1, completed=true}
Experiment{setup='setup15', day=1, time='timeInfo', accuracy=1.5, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup1', day=2, time='timeInfo', accuracy=0.1, completed=true}
Experiment{setup='setup5', day=2, time='timeInfo', accuracy=0.5, completed=true}
Experiment{setup='setup7', day=2, time='timeInfo', accuracy=0.7, completed=true}
Experiment{setup='setup10', day=2, time='timeInfo', accuracy=1.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}
Experiment{setup='setup6', day=3, time='timeInfo', accuracy=0.6, completed=true}
Experiment{setup='setup9', day=3, time='timeInfo', accuracy=0.9, completed=true}
Experiment{setup='setup12', day=3, time='timeInfo', accuracy=1.2, completed=true}
Experiment{setup='setup16', day=3, time='timeInfo', accuracy=1.6, completed=true}
Experiment{setup='setup18', day=3, time='timeInfo', accuracy=1.8, completed=true}
Experiment{setup='setup19', day=3, time='timeInfo', accuracy=1.9, completed=true}
List day view:
Experiment{setup='setup4', day=0, time='timeInfo', accuracy=0.4, completed=true}
Experiment{setup='setup11', day=1, time='timeInfo', accuracy=1.1, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}
---
removeExp(1,0) Result:
-Experiment{setup='setup11', day=1, time='timeInfo', accuracy=1.1, completed=true}
List experiment view:
Experiment{setup='setup4', day=0, time='timeInfo', accuracy=0.4, completed=true}
Experiment{setup='setup8', day=0, time='timeInfo', accuracy=0.8, completed=true}
Experiment{setup='setup13', day=0, time='timeInfo', accuracy=1.0, completed=true}
Experiment{setup='setup14', day=0, time='timeInfo', accuracy=1.4, completed=true}
Experiment{setup='setup17', day=0, time='timeInfo', accuracy=1.7, completed=true}
Experiment{setup='setup15', day=1, time='timeInfo', accuracy=1.5, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup1', day=2, time='timeInfo', accuracy=0.1, completed=true}
Experiment{setup='setup5', day=2, time='timeInfo', accuracy=0.5, completed=true}
Experiment{setup='setup7', day=2, time='timeInfo', accuracy=0.7, completed=true}
Experiment{setup='setup10', day=2, time='timeInfo', accuracy=1.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}
Experiment{setup='setup6', day=3, time='timeInfo', accuracy=0.6, completed=true}
Experiment{setup='setup9', day=3, time='timeInfo', accuracy=0.9, completed=true}
Experiment{setup='setup12', day=3, time='timeInfo', accuracy=1.2, completed=true}
Experiment{setup='setup16', day=3, time='timeInfo', accuracy=1.6, completed=true}
Experiment{setup='setup18', day=3, time='timeInfo', accuracy=1.8, completed=true}
Experiment{setup='setup19', day=3, time='timeInfo', accuracy=1.9, completed=true}
List day view:
Experiment{setup='setup4', day=0, time='timeInfo', accuracy=0.4, completed=true}
Experiment{setup='setup15', day=1, time='timeInfo', accuracy=1.5, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}
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removeExp(1,) Result:

-Experiment{setup='setup15', day=1, time='timeInfo', accuracy=1.5, completed=true}
List experiment view:
Experiment{setup='setup4', day=0, time='timeInfo', accuracy=0.4, completed=true}
Experiment{setup='setup8', day=0, time='timeInfo', accuracy=0.8, completed=true}
Experiment{setup='setup13', day=0, time='timeInfo', accuracy=1.0, completed=true}
Experiment{setup='setup14', day=0, time='timeInfo', accuracy=1.4, completed=true}
Experiment{setup='setup17', day=0, time='timeInfo', accuracy=1.7, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup1', day=2, time='timeInfo', accuracy=0.1, completed=true}
Experiment{setup='setup5', day=2, time='timeInfo', accuracy=0.5, completed=true}
Experiment{setup='setup7', day=2, time='timeInfo', accuracy=0.7, completed=true}
Experiment{setup='setup10', day=2, time='timeInfo', accuracy=1.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}
Experiment{setup='setup6', day=3, time='timeInfo', accuracy=0.6, completed=true}
Experiment{setup='setup9', day=3, time='timeInfo', accuracy=0.9, completed=true}
Experiment{setup='setup12', day=3, time='timeInfo', accuracy=1.2, completed=true}
Experiment{setup='setup16', day=3, time='timeInfo', accuracy=1.6, completed=true}
Experiment{setup='setup18', day=3, time='timeInfo', accuracy=1.8, completed=true}
Experiment{setup='setup19', day=3, time='timeInfo', accuracy=1.9, completed=true}
List day view:
Experiment{setup='setup4', day=0, time='timeInfo', accuracy=0.4, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}
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removeExp(3,6) Result:
-Experiment{setup='setup19', day=3, time='timeInfo', accuracy=1.9, completed=true}
List experiment view:
Experiment{setup='setup4', day=0, time='timeInfo', accuracy=0.4, completed=true}
Experiment{setup='setup8', day=0, time='timeInfo', accuracy=0.8, completed=true}
Experiment{setup='setup13', day=0, time='timeInfo', accuracy=1.0, completed=true}
Experiment{setup='setup14', day=0, time='timeInfo', accuracy=1.4, completed=true}
Experiment{setup='setup17', day=0, time='timeInfo', accuracy=1.7, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup1', day=2, time='timeInfo', accuracy=0.1, completed=true}
Experiment{setup='setup5', day=2, time='timeInfo', accuracy=0.5, completed=true}
Experiment{setup='setup7', day=2, time='timeInfo', accuracy=0.7, completed=true}
Experiment{setup='setup10', day=2, time='timeInfo', accuracy=1.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}
Experiment{setup='setup6', day=3, time='timeInfo', accuracy=0.6, completed=true}
Experiment{setup='setup9', day=3, time='timeInfo', accuracy=0.9, completed=true}
Experiment{setup='setup12', day=3, time='timeInfo', accuracy=1.2, completed=true}
Experiment{setup='setup16', day=3, time='timeInfo', accuracy=1.6, completed=true}
Experiment{setup='setup18', day=3, time='timeInfo', accuracy=1.8, completed=true}
List day view:
Experiment{setup='setup4', day=0, time='timeInfo', accuracy=0.4, completed=true}
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}
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orderExperiment Result:
Experiment{setup='setup0', day=2, time='timeInfo', accuracy=0.0, completed=true}
Experiment{setup='setup1', day=2, time='timeInfo', accuracy=0.1, completed=true}
Experiment{setup='setup3', day=3, time='timeInfo', accuracy=0.3, completed=true}

Experiment{setup='setup4', day=0, time='timeInfo', accuracy=0.4, completed=true}
Experiment{setup='setup5', day=2, time='timeInfo', accuracy=0.5, completed=true}
Experiment{setup='setup6', day=3, time='timeInfo', accuracy=0.6, completed=true}
Experiment{setup='setup7', day=2, time='timeInfo', accuracy=0.7, completed=true}
Experiment{setup='setup8', day=0, time='timeInfo', accuracy=0.8, completed=true}
Experiment{setup='setup9', day=3, time='timeInfo', accuracy=0.9, completed=true}
Experiment{setup='setup10', day=2, time='timeInfo', accuracy=1.0, completed=true}
Experiment{setup='setup13', day=0, time='timeInfo', accuracy=1.0, completed=true}
Experiment{setup='setup12', day=3, time='timeInfo', accuracy=1.2, completed=true}
Experiment{setup='setup14', day=0, time='timeInfo', accuracy=1.4, completed=true}
Experiment{setup='setup16', day=3, time='timeInfo', accuracy=1.6, completed=true}
Experiment{setup='setup17', day=0, time='timeInfo', accuracy=1.7, completed=true}
Experiment{setup='setup18', day=3, time='timeInfo', accuracy=1.8, completed=true}

Process finished with exit code 0