Team Information

Team ID	34
Team Repo on GitHub	https://github.com/HUANG-Haolun/COMP3111-GROUP34

Name (Member 1)	HUANG Haolun
GitHub ID	HUANG-Haolun
Email ID	hhuangbl@connect.ust.hk
Dev Branch	feature-input
Task Assignment	input

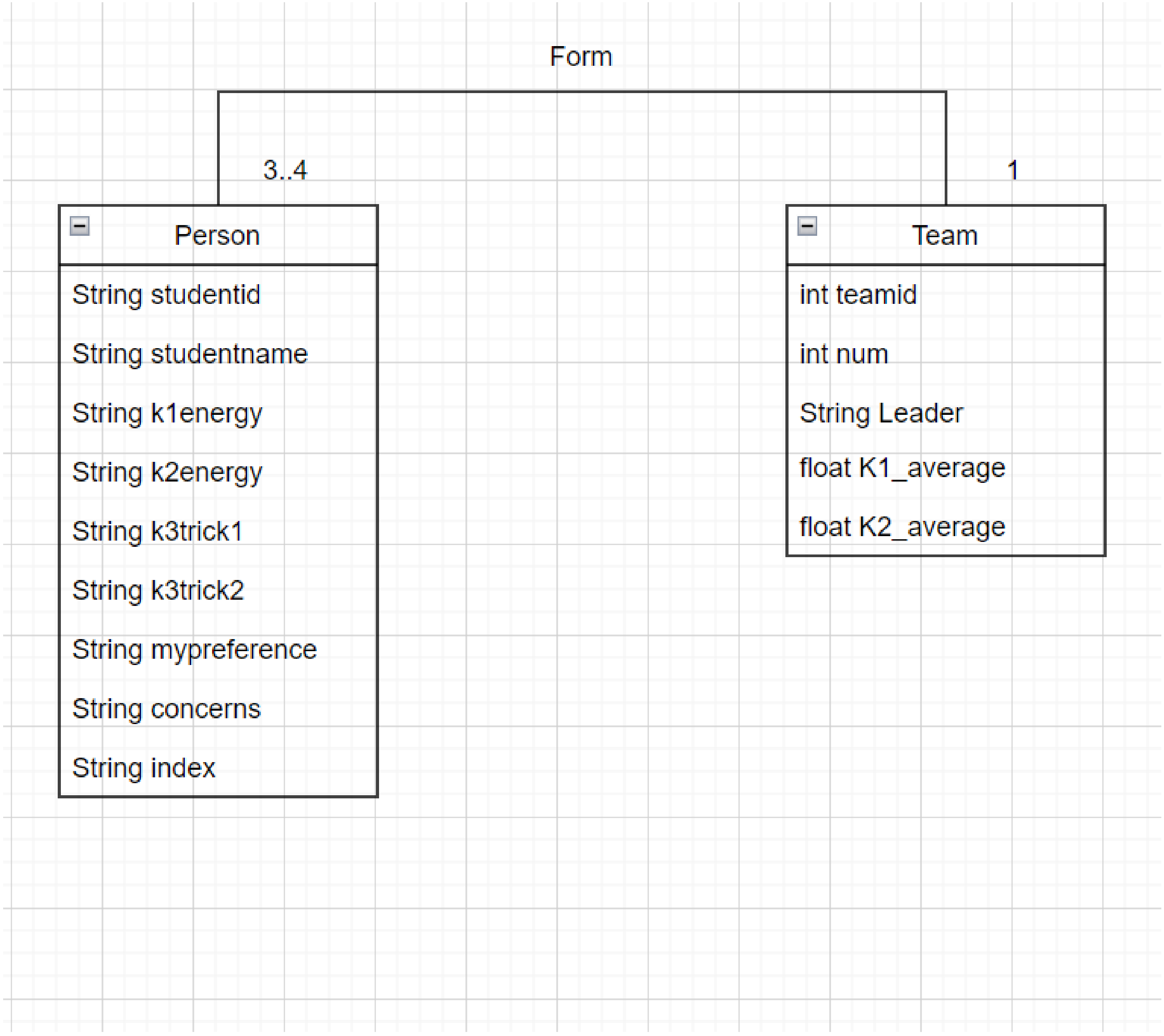
Name (Member 2)	HUANG Baixiang
GitHub ID	Xiaoyuanzi22333
Email ID	bhuangak@connect.ust.hk
Dev Branch	feature-output
Task Assignment	output

Name (Member 3)	Ju Jong Hyeon
GitHub ID	JJHyeon25
Email ID	jjuab@connect.ust.hk
Dev Branch ID	feature-process
Task Assignment	process

Submitted by: ______HUANG Haolun_________

Date of Submission: ________2022/11/23_________

Revised Class Diagram (for overall system)



Description: From our initial class diagram, the class name “Student” is changed to “Person” in order to utilize the given skeleton code fully. Also, the attribute email has been removed from Person class as we found that the email is an unnecessary attribute for the execution of ATU Program. In order to facilitate the output part, the additional attribute to the Team class was added like num, which is the number of members in the Team, and Leader, which is the name of the leader in the Team.

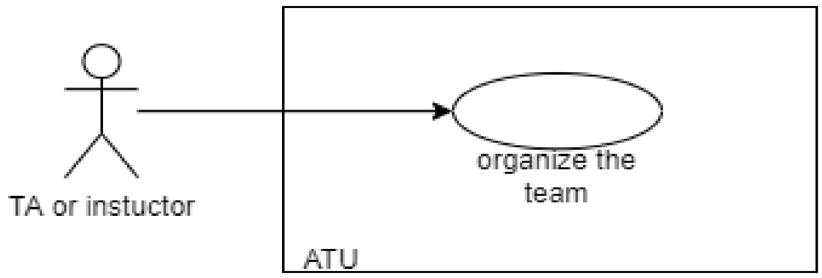
ATU: Use-case Detailed Specification (revised)

Use Case: Organize The Team

Brief Description

This use case describes how the instructor or TA initiates the ATU engine and organize the students to a team of three to four members.

Use-case Diagram



Basic Flow

1. Use case begins when the actor Instructor or TA runs the ATU program.

2. The system uses given CSV files to organize the teams according to the algorithm. The system also calculates basic statistics and displays them by GUI.

3. The instructor confirms the statistics.

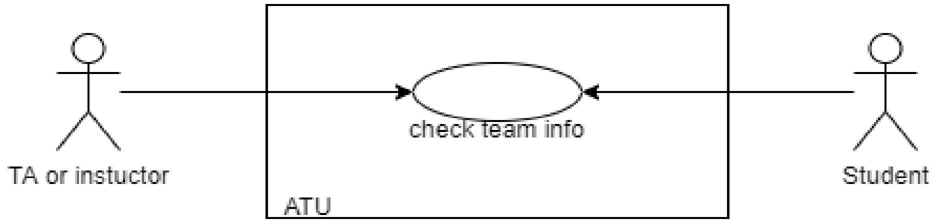
4. The use case ends.

Use Case: Check Team Info

Brief Description

This use case basically describes how "students" or "TA or instructor" can use the ATU engine to view the members of the team and the team's attributes.

Use-case Diagram



Basic Flow

1. Use case begins when the actor "Student" or the actor "TA or instructor" runs the ATU program.

{Ask name}

2. The system displays the interface to type in the name.

{Insert name}

3. The "student" or "TA or instructor" input the name.

{Show table}

4. The system shows outputs of a table showing team id, team members, their names, and the team's average energy of K1 and K2.

5. The use case ends.

Alternative Flows

A1: Invalid name

At {Show table} if the entered name is invalid,

1. The flow of events is resumed at {Ask name}

Explanation for the revision of Use-case Detailed Specification:

1. **To reduce the complexity of the ATU program, the revision has been made from uploading CSV file to assumptions that the CSV file has been already provided and uploaded to the system.**
2. **In order to focus more on the functionality of the program and make the programs less prone to the errors, unnecessary interfaces are removed from the Use-case Detailed Specification.**

PART 1: Documentation – Project Management

1.1. Team Meeting Minutes

Group 34

COMP 3111: Introduction to Software Engineering

Minutes of the 1st Project Meeting

Life Debugger

Date: Oct 15, 2022

Time: 8:00 p.m.

Place: Zoom meeting

Attending: Huang Hao Lun, Huang Bai Xiang, Ju Jong Hyeon

Absent: None

Recorder: Huang Hao Lun

1. **Report on progress during the past week**

Name	Tasks worked on in the past week	Total hours
Huang Baixiang	Studied JavaFx and how to build chart in it.	5hrs
Huang Haolun	Studied JavaFx and how to build form in it. Learn how to load data from csv files into program.	3hrs
Ju Jong Hyeon	Read the team requirements and rules in detail and think about the classification algorithm	3hrs

2. **Discussion of impediments and resolution**
   - 2.1. We read and analyzed the detailed description of the project, discussed the work to be done in the three parts, and made a detailed assignment of work.
   - 2.2. Huang Baixiang made a use case, Ju Jong Hyeon and Huang Haolun made a class diagram, and then we discussed and analyzed these two diagrams and determined the final version

3. **Goals for the upcoming meeting**

Name	Tasks that will be worked before the next meeting
Huang Baixiang	Continue learning javaFx and work on the implementation of the output part.
Huang Haolun	Work on implementation of the input part and ask the questions we have to TA.
Ju Jong Hyeon	Work on the implementation of the process part and help others debug.

4. **Meeting adjournment and next meeting**

The meeting was adjourned at 10:30 p.m. The next meeting will be held on Octobor 25th at 4:00 p.m. in the Zoom meeting.

COMP 3111: Introduction to Software Engineering

Minutes of the 2nd Project Meeting

Life Debugger

Date: Oct 25, 2022

Time: 4:00 p.m.

Place: Zoom meeting

Attending: Huang Haolun, Huang Baixiang, Ju Jong Hyeon

Absent: -

Recorder: Ju Jong Hyeon

1. Report on progress from the 1st meeting

Name	Tasks worked on from the 1st meeting	Total hours
Huang Haolun	Based on research, planned and designed the implementation of the input part and started to do coding.	10hrs
Ju Jong Hyeon	Based on research, planned and designed the implementation of the process part and started to do coding.	8hrs
Huang Baixiang	Based on research, planned and started designing the implementation of the output part.	8hrs

2. Discussion of impediments and resolution

2.1. In order to synchronize the datasets, classes, and variables that would be used for the coding were discussed and decided.

2.2. For convenience in the implementations, new attributes in the Team classes were added.

2.3. In order to simplify the input part, our prior design to accept the csv file provided by instructors or TAs were changed by assuming that the files are already provided to the system.

3. Goals for the upcoming meeting

Name	Tasks that will be worked on before the next meeting
Huang Haolun	Work on the implementation of input part.
Ju Jong Hyeon	Work on the implementation of process part.
Huang Baixiang	Do the design and start working on the implementation of output part.

4. Meeting adjournment and next meeting

The meeting was adjourned at 7:00 p.m. The next meeting will be held when there are some problems in the implementations of each part or implementations of each part are done.

COMP 3111: Introduction to Software Engineering

Minutes of the 3rd Project Meeting

Life Debugger

Date: Nov 15, 2022

Time: 9:00 p.m

Place: Room 4210 and Zoom

Attending: Huang Baixiang, Huang Haolun, Ju Jong Hyeon

Absent: None

Recorder: Huang Baixiang

1. Report on progress from the 2nd meeting

Name	Tasks worked on from the 2nd meeting	Total hours
Huang Haolun	Studied Javafx and finished the input part. Gave the apis for the process part.	6hrs
Ju Jong Hyeon	Worked on the design of the process part. Gave the corresponding apis for output.	10hrs
Huang Baixiang	Worked on the design of the output process. Gave the chart and form of the output and the data needed	8hrs

2. Discussion of impediments and resolution

2.1. Ju Jong Hyeon found a problem in coding and finally managed to push to github and solved it.

2.2. Huang Baixiang met a problem in coding and finished it after debugging

3. Goals for the upcoming meeting

Name	Tasks that will be worked on before the next meeting
Huang Haolun	Finish and push the input part and provide the info to the process
Ju Jong Hyeon	Finish debugging the Process part and provide the datasets to the Output
Huang Baixiang	Finish debugging the Output and deal with the datas

4. Meeting adjournment and next meeting

The meeting was adjourned at 11:30 p.m. The next meeting will be held on 11/21 at 8:00 p.m. in the 4210 and zoom.

COMP 3111: Introduction to Software Engineering

Minutes of the 4th Project Meeting

Life Debugger

Date: Nov 21, 2022

Time: 8:00 p.m

Place: Room 4210 and Zoom

Attending: Huang Baixiang, Huang Haolun, Ju Jong Hyeon

Absent: None

Recorder: Ju Jong Hyeon

1. Report on progress from the 3rd meeting

Name	Tasks worked on from the 3rd meeting	Total hours
Huang Haolun	Finished writing code and JUnit test cases for the input part.	6hrs
Ju Jong Hyeon	Finished writing code and JUnit test cases for the process part.	4hrs
Huang Baixiang	Finished writing code and JUnit test cases for the output part.	6hrs

2. Discussion of impediments and resolution

2.1. Merged all the code from each branch into the main branch after resolving the conflict.

2.2. Final process of ATU Program was tested and JUnit test and the coverage report we

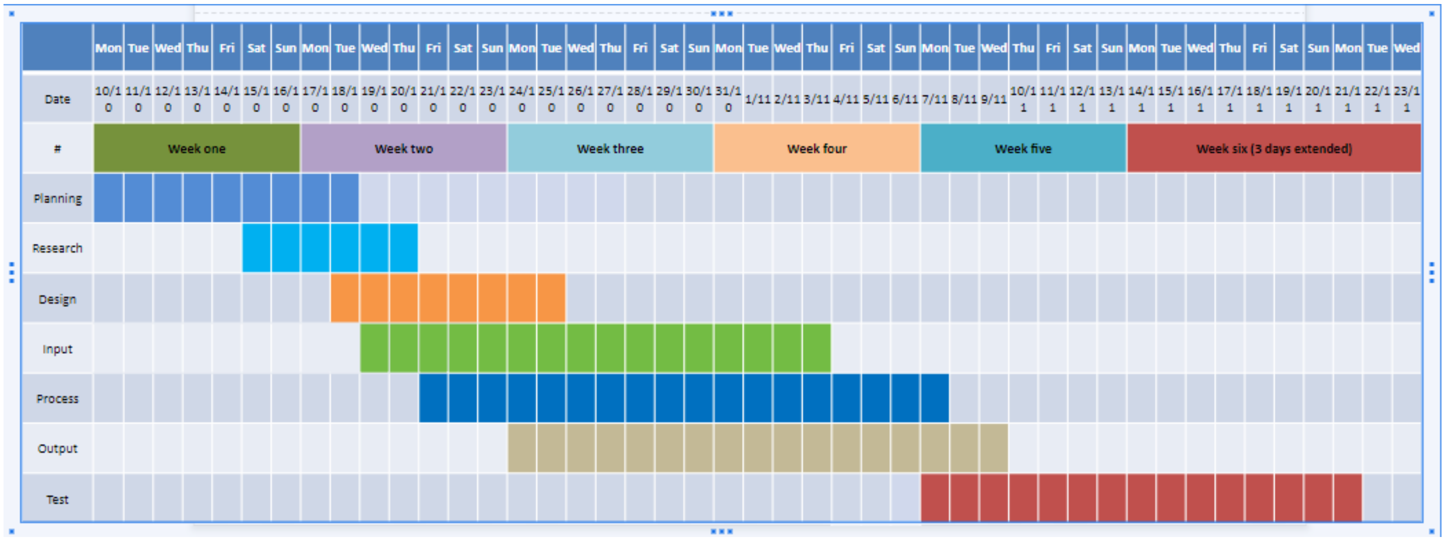
3. Goals for the deadline of the project

Name	Tasks that will be worked on before the deadline of the project
Huang Haolun	Finalize the input part and produce the burndown chart and git commit log.
Ju Jong Hyeon	Finalize the process part and produce the Gantt chart and Unit testing report.
Huang Baixiang	Finalize the output part and produce the Javadoc and meeting minutes.

4. Meeting adjournment and next meeting

The meeting was adjourned at 12:30 a.m. The next meeting will not be held unless there are any critical problems encountered for each one’s part.

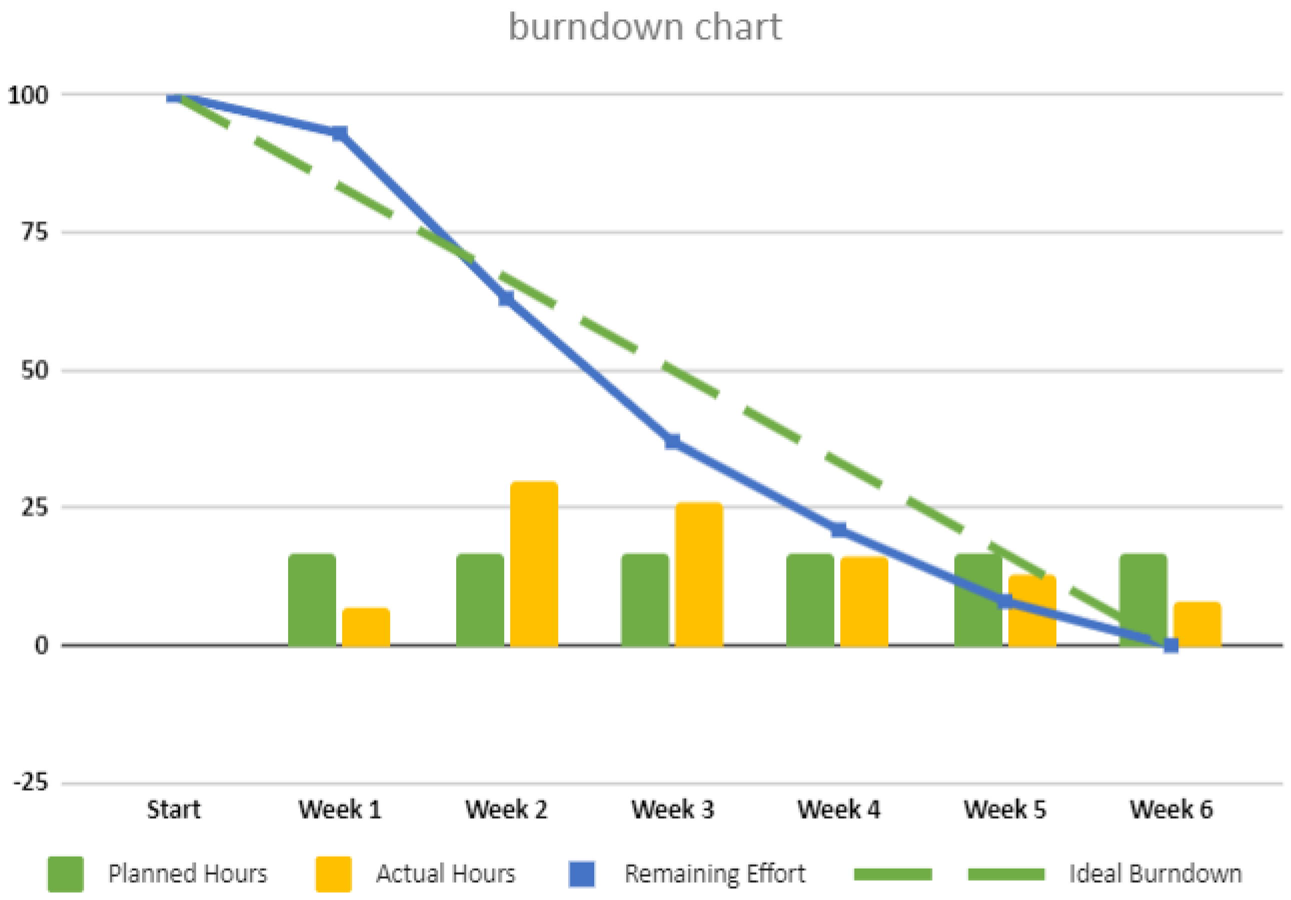
1.2. Gantt Chart



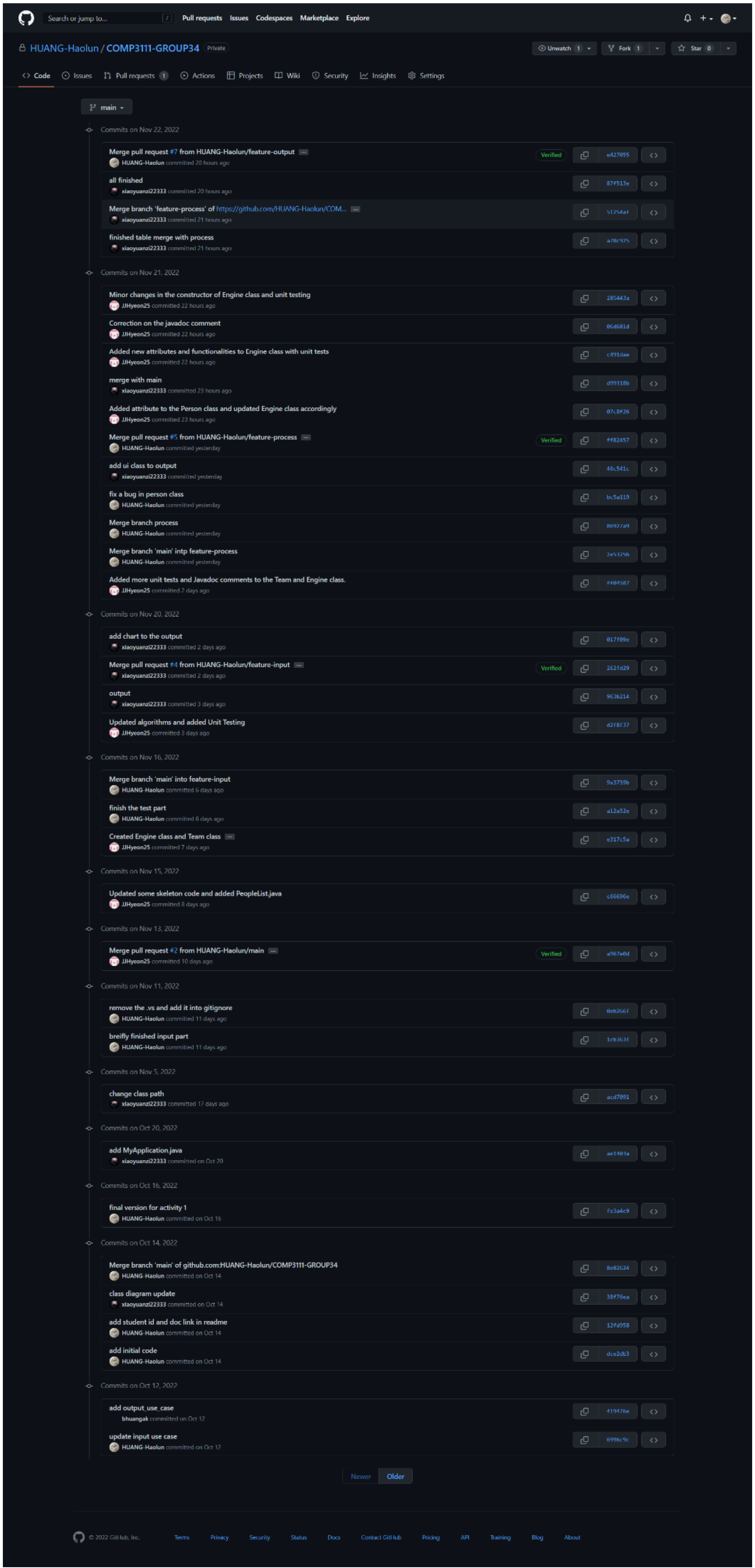
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Date	10/10	11/10	12/10	13/10	14/10	15/10	16/10	17/10	18/10	19/10	20/10	21/10	22/10	23/10	24/10	25/10	26/10	27/10	28/10	29/10	30/10
#	Week one							Week two							Week three						
Planning	■	■	■	■	■	■	■	■	■												
Research						■	■	■	■	■	■										
Design									■	■	■	■	■	■	■	■					
Input										■	■	■	■	■	■	■	■	■	■	■	■
Process												■	■	■	■	■	■	■	■	■	■
Output															■	■	■	■	■	■	■
Test																					

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed
Date	31/10	1/11	2/11	3/11	4/11	5/11	6/11	7/11	8/11	9/11	10/11	11/11	12/11	13/11	14/11	15/11	16/11	17/11	18/11	19/11	20/11	21/11	22/11	23/11
#	Week four							Week five							Week six (3 days extended)									
Planning																								
Research																								
Design																								
Input	■	■	■	■																				
Process	■	■	■	■	■	■	■	■																
Output	■	■	■	■	■	■	■	■	■	■														
Test								■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		

1.3. Burndown Chart



1.4. Representative Git commit log on GitHub



Commits on Nov 22, 2022

Merge pull request #7 from HUANG-Haolun/feature-output … Verified e427055
HUANG-Haolun committed 20 hours ago

all finished 87f513e
xiaoyuanzi22333 committed 20 hours ago

Merge branch 'feature-process' of https://github.com/HUANG-Haolun/COM… … 51254af
xiaoyuanzi22333 committed 21 hours ago

finished table merge with process a78c925
xiaoyuanzi22333 committed 21 hours ago

Commits on Nov 21, 2022

Minor changes in the constructor of Engine class and unit testing 285443a
JJHyeon25 committed 22 hours ago

Correction on the javadoc comment 06d681d
JJHyeon25 committed 22 hours ago

Added new attributes and functionalities to Engine class with unit tests c491dae
JJHyeon25 committed 22 hours ago

merge with main d99318b
xiaoyuanzi22333 committed 23 hours ago

Added attribute to the Person class and updated Engine class accordingly 07c8f26
JJHyeon25 committed 23 hours ago

Merge pull request #5 from HUANG-Haolun/feature-process … Verified ff82457
HUANG-Haolun committed yesterday

add ui class to output 46c541c
xiaoyuanzi22333 committed yesterday

fix a bug in person class bc5a119
HUANG-Haolun committed yesterday

Merge branch process 8b927a9
HUANG-Haolun committed yesterday

Merge branch 'main' intp feature-process 2e5325b
HUANG-Haolun committed yesterday

Added more unit tests and Javadoc comments to the Team and Engine class. ff04587
JJHyeon25 committed 2 days ago

Commits on Nov 20, 2022

add chart to the output 017f09e
xiaoyuanzi22333 committed 2 days ago

Merge pull request #4 from HUANG-Haolun/feature-input … Verified 262fd29
xiaoyuanzi22333 committed 2 days ago

output 963b214
xiaoyuanzi22333 committed 3 days ago

Updated algorithms and added Unit Testing d2f8f37
JJHyeon25 committed 3 days ago

Commits on Nov 16, 2022

Merge branch 'main' into feature-input 9a3759b
HUANG-Haolun committed 6 days ago

finish the test part a12a52e
HUANG-Haolun committed 6 days ago

Created Engine class and Team class … e317c5a
JJHyeon25 committed 7 days ago

Commits on Nov 15, 2022

Updated some skeleton code and added PeopleList.java c66696e
JJHyeon25 committed 8 days ago

Commits on Nov 13, 2022

Merge pull request #2 from HUANG-Haolun/main … Verified a967e0d
JJHyeon25 committed 10 days ago

Commits on Nov 11, 2022

remove the .vs and add it into gitignore 0eb266f
HUANG-Haolun committed 11 days ago

breifly finished input part 1cb363f
HUANG-Haolun committed 11 days ago

Commits on Nov 5, 2022

change class path acd7091
xiaoyuanzi22333 committed 17 days ago

Commits on Oct 20, 2022

add MyApplication.java ae1403a
xiaoyuanzi22333 committed on Oct 20

Commits on Oct 16, 2022

final version for activity 1 fe3a4c9
HUANG-Haolun committed on Oct 16

Commits on Oct 14, 2022

Merge branch 'main' of github.com:HUANG-Haolun/COMP3111-GROUP34 8e82624
HUANG-Haolun committed on Oct 14

class diagram update 38f76ea
xiaoyuanzi22333 committed on Oct 14

add student id and doc link in readme 12fd958
HUANG-Haolun committed on Oct 14

add initial code dce2db3
HUANG-Haolun committed on Oct 14

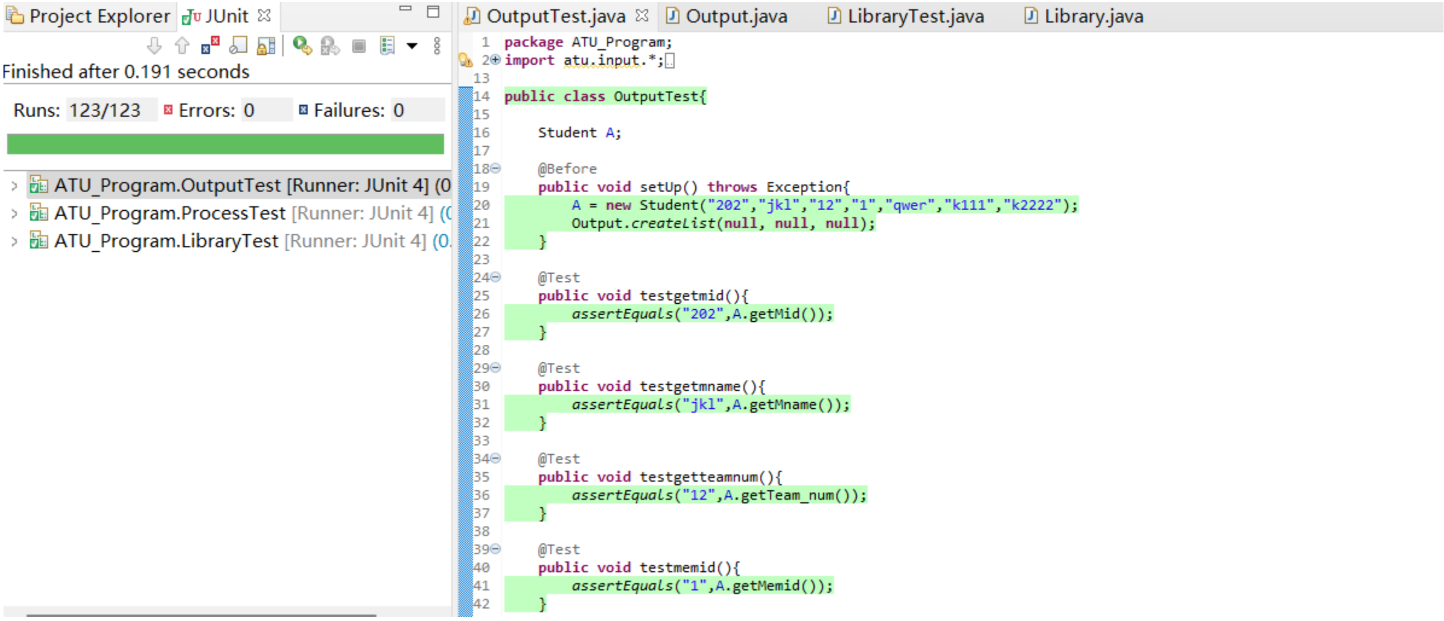
Commits on Oct 12, 2022

add output_use_case 419476e
bhuangak committed on Oct 12

update input use case 6996c9c
HUANG-Haolun committed on Oct 12

PART 2: Documentation – Implementation and Testing

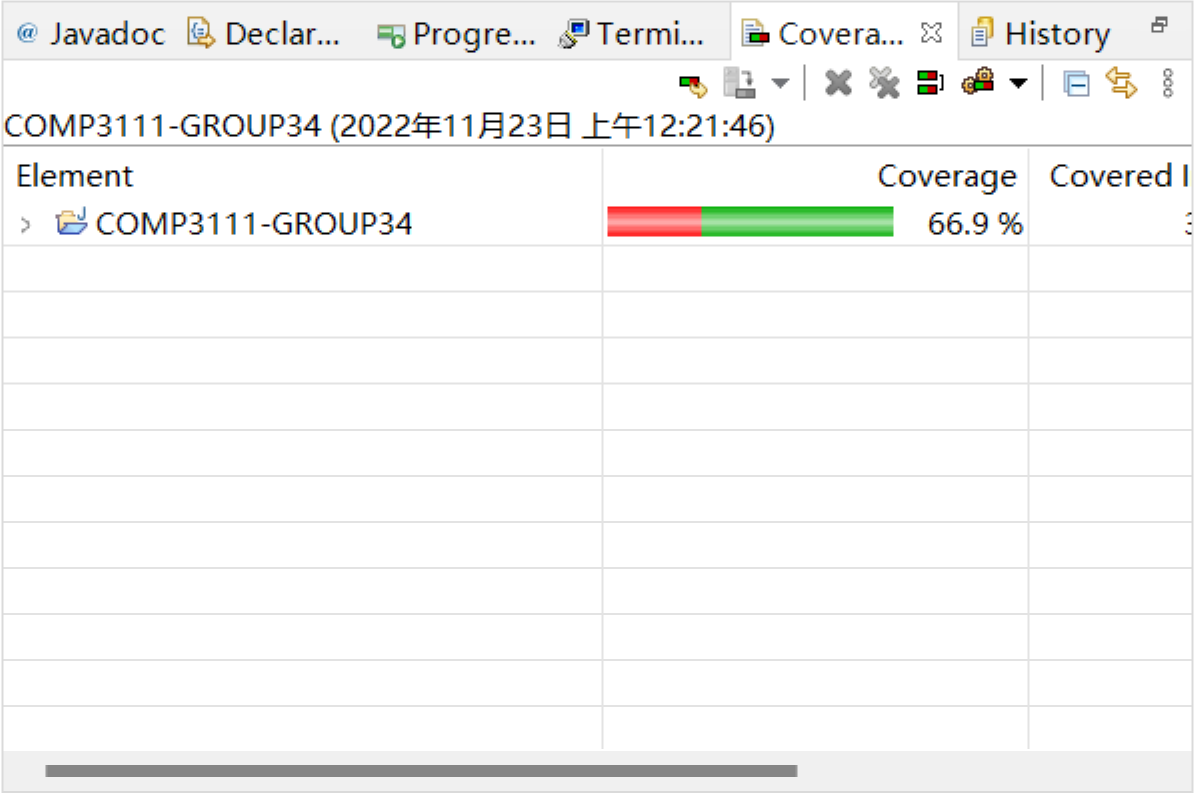
2.1. Report on the unit testing for the implemented tasks (100% pass)



```
Finished after 0.191 seconds

Runs: 123/123    Errors: 0    Failures: 0

> ATU_Program.OutputTest [Runner: JUnit 4] (0
> ATU_Program.ProcessTest [Runner: JUnit 4] (0
> ATU_Program.LibraryTest [Runner: JUnit 4] (0.
```

```java
package ATU_Program;
import atu.input.*;

public class OutputTest{

    Student A;

    @Before
    public void setUp() throws Exception{
        A = new Student("202","jkl","12","1","qwer","k111","k2222");
        Output.createList(null, null, null);
    }

    @Test
    public void testgetmid(){
        assertEquals("202",A.getMid());
    }

    @Test
    public void testgetmname(){
        assertEquals("jkl",A.getMname());
    }

    @Test
    public void testgetteamnum(){
        assertEquals("12",A.getTeam_num());
    }

    @Test
    public void testmemid(){
        assertEquals("1",A.getMemid());
    }
```

2.2. Report on the coverage test (>65% branch coverage)



COMP3111-GROUP34 (2022年11月23日 上午12:21:46)

Element	Coverage	Covered I
COMP3111-GROUP34	66.9 %	

2.3. Documentation on the implemented tasks using JavaDoc

https://github.com/HUANG-Haolun/COMP3111-GROUP34/tree/feature-document/doc/doc

PART 3: Program Execution and Screenshots

3.1. Screenshots of the execution of the application showing sample inputs and outputs of your choice (Table-Generating Task:INPUT)

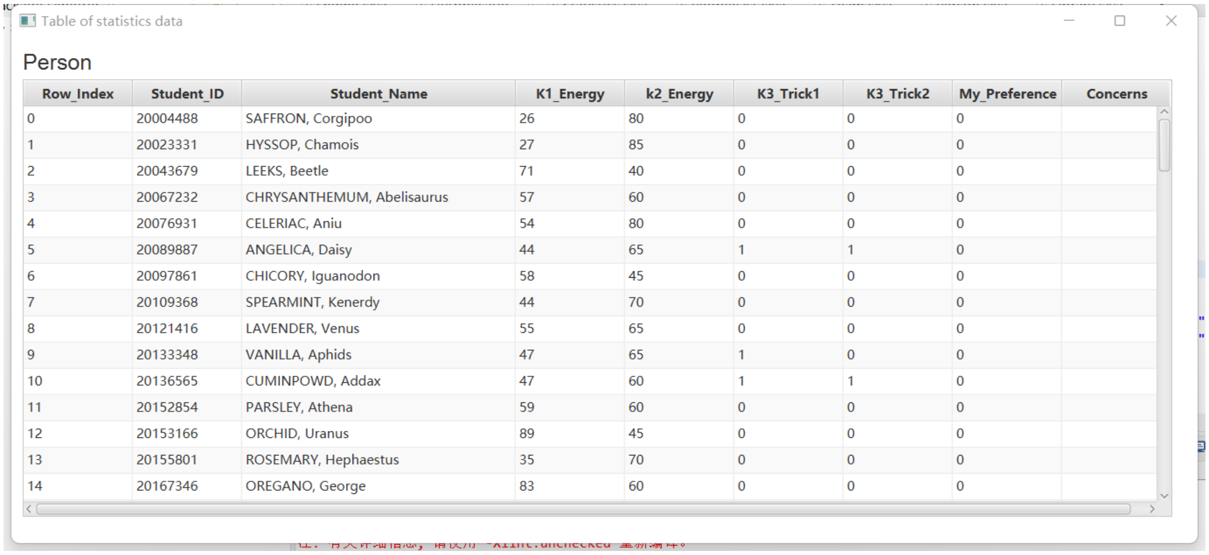


Table of statistics data

Person

Row_Index	Student_ID	Student_Name	K1_Energy	k2_Energy	K3_Trick1	K3_Trick2	My_Preference	Concerns
0	20004488	SAFFRON, Corgipoo	26	80	0	0	0	
1	20023331	HYSSOP, Chamois	27	85	0	0	0	
2	20043679	LEEKS, Beetle	71	40	0	0	0	
3	20067232	CHRYSANTHEMUM, Abelisaurus	57	60	0	0	0	
4	20076931	CELERIAC, Aniu	54	80	0	0	0	
5	20089887	ANGELICA, Daisy	44	65	1	1	0	
6	20097861	CHICORY, Iguanodon	58	45	0	0	0	
7	20109368	SPEARMINT, Kenerdy	44	70	0	0	0	
8	20121416	LAVENDER, Venus	55	65	0	0	0	
9	20133348	VANILLA, Aphids	47	65	1	0	0	
10	20136565	CUMINPOWD, Addax	47	60	1	1	0	
11	20152854	PARSLEY, Athena	59	60	0	0	0	
12	20153166	ORCHID, Uranus	89	45	0	0	0	
13	20155801	ROSEMARY, Hephaestus	35	70	0	0	0	
14	20167346	OREGANO, George	83	60	0	0	0	

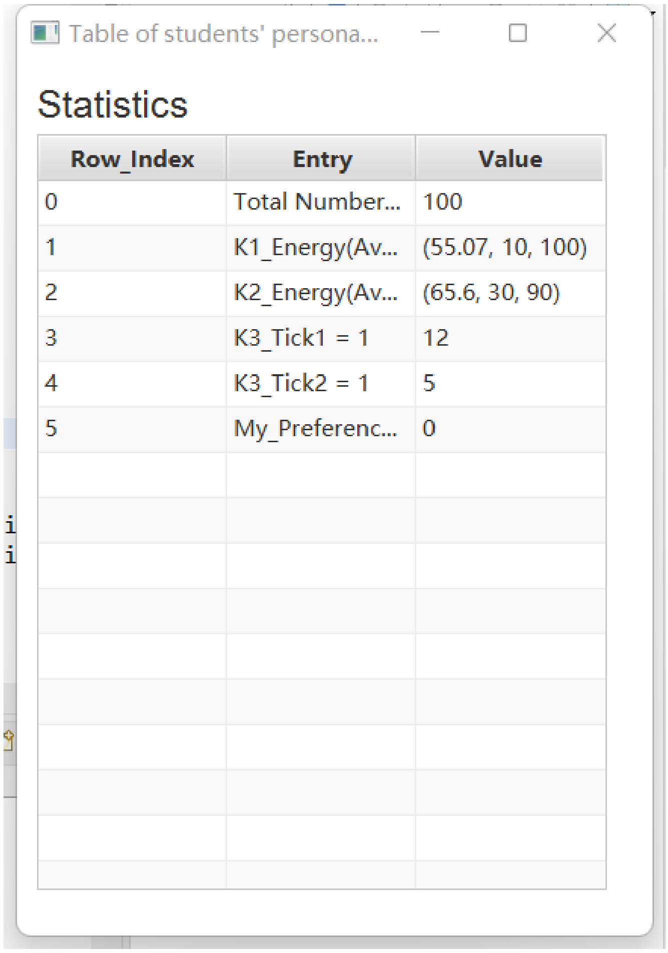
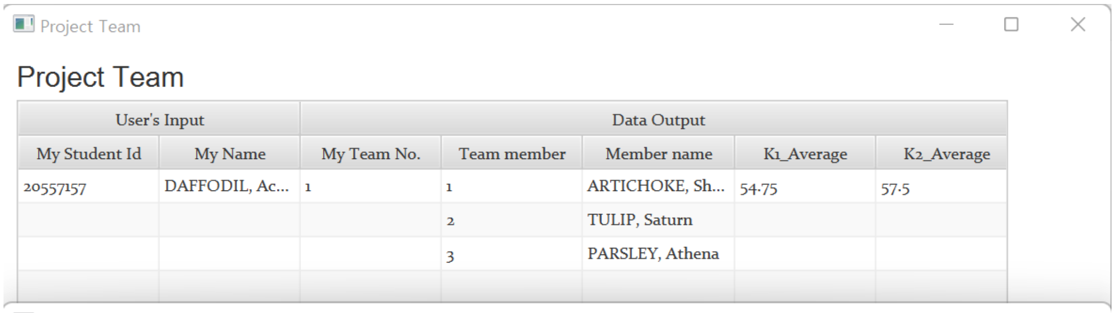


Table of students' persona...

Statistics

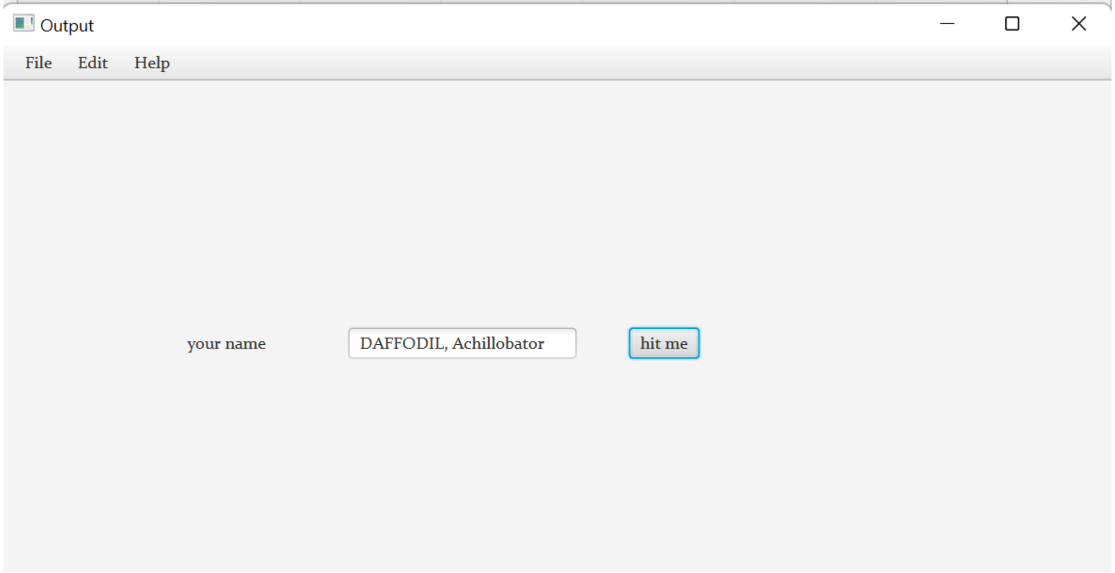
Row_Index	Entry	Value
0	Total Number...	100
1	K1_Energy(Av...	(55.07, 10, 100)
2	K2_Energy(Av...	(65.6, 30, 90)
3	K3_Tick1 = 1	12
4	K3_Tick2 = 1	5
5	My_Preferenc...	0

3.2. Screenshots of the execution of the application showing sample inputs and outputs of your choice (Chart-Generating Task Output)

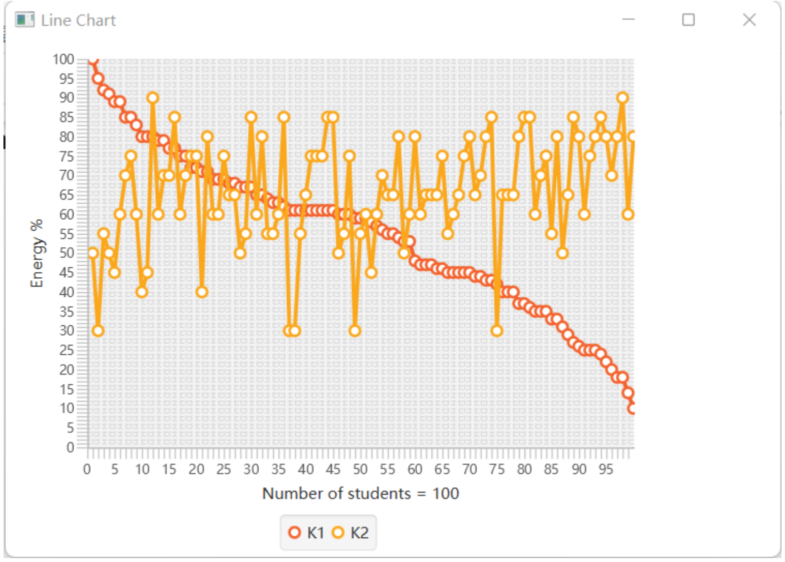


Project Team

User's Input		Data Output				
My Student Id	My Name	My Team No.	Team member	Member name	K1_Average	K2_Average
20557157	DAFFODIL, Ac...	1	1	ARTICHOKE, Sh...	54.75	57.5
			2	TULIP, Saturn		
			3	PARSLEY, Athena		



your name DAFFODIL, Achillobator



3.3. Presentation of Commendable Features beyond Basic Requirements