

Sample Execution Screenshots (Data-reporting Task)

Task 1 - Chan Chin Ho Ryan (chrchanaa)

learn I-51: Popular Names

Task Zero

Reporting 1

Reporting 2

Reporting 3

Application1

Application 2

Application 3

Generate a brief report in response to the queries on the most popular names registered at birth over a given period.

Top N (N>=1):

Gender: ☒ Male ☐ Female

Period (1880 - 2019): to

REPORT

Console

N cannot be empty

Task Zero Reporting 1 Reporting 2 Reporting 3 Application1 Application 2 Application 3

Generate a brief report in response to the queries on the most popular names registered at birth over a given period.

Top N (N>=1): Gender: ☒ Male ☐ Female

Period (1880 - 2019): to

REPORT

Console

year cannot be empty

Task Zero Reporting 1 Reporting 2 Reporting 3 Application1 Application 2 Application 3

Generate a brief report in response to the queries on the most popular names registered at birth over a given period.

Top N (N>=1): Gender: ☒ Male ☐ Female

Period (1880 - 2019): to

REPORT

Console

year cannot be empty

Generate a brief report in response to the queries on the most popular names registered at birth over a given period.

Top N (N>=1): Gender: ☒ Male ☐ Female

Period (1880 - 2019): to

REPORT

Console

Please input a number that is greater than or equal to 1 for the value N

Task Zero Reporting 1 Reporting 2 Reporting 3 Application1 Application 2 Application 3

Generate a brief report in response to the queries on the most popular names registered at birth over a given period.

Top N (N>=1): Gender: ☒ Male ☐ Female

Period (1880 - 2019): to

REPORT

Console

The period of interest must be between 1880 and 2019

Generate a brief report in response to the queries on the most popular names registered at birth over a given period.

Top N (N>=1): Gender: ☒ Male ☐ Female

Period (1880 - 2019): to

REPORT

Console

Incorrect period

Generate a brief report in response to the queries on the most popular names registered at birth over a given period.

Top N (N>=1): Gender: ☒ Male ☐ Female

Period (1880 - 2019): to

REPORT

Console

Year	Top1	Top2	Top3
1880	John	William	James
1881	John	William	James
1882	John	William	James
1883	John	William	James

Over the period 1880 to 1883, John for Male has hold the top spot most often for a total of 4 times.

Generate a brief report in response to the queries on the most popular names registered at birth over a given period.

Top N (N>=1): Gender: ☐ Male ☒ Female

Period (1880 - 2019): to

REPORT

Console

Year	Top1	Top2	Top3
1880	Mary	Anna	Emma
1881	Mary	Anna	Emma
1882	Mary	Anna	Emma
1883	Mary	Anna	Emma

Over the period 1880 to 1883, Mary for Female has hold the top spot most often for a total of 4 times.

Task 2 - Han Byul (Tommy) Yoon (hbyoon)

Team T-51: Popular Names

Task Zero

Reporting 1

Reporting 2

Reporting 3

Application1

Application 2

Application 3

Generate a brief report in response to the queries on the popularity of a particular name over a given period.

Name

Gender:

☒ Male

☐ Female

Period (1880 - 2019): to

REPORT

Console

Name field cannot be blank

Team T-51: Popular Names

Task Zero

Reporting 1

Reporting 2

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Application1

Application 2

Application 3

Generate a brief report in response to the queries on the popularity of a particular name over a given period.

Name

Tommy

Gender:

☒ Male

☐ Female

Period (1880 - 2019):

to

REPORT

Console

Period field cannot be blank

Task Zero Reporting 1 Reporting 2 Reporting 3 Application1 Application 2 Application 3

Generate a brief report in response to the queries on the popularity of a particular name over a given period.

Name Gender: ☐ Male ☒ Female

Period (1880 - 2019): to

REPORT

Console

Please input valid period (1880 - 2019)

Team T-51: Popular Names

Task Zero

Reporting 1

Reporting 2

Reporting 3

Application1

Application 2

Application 3

Generate a brief report in response to the queries on the popularity of a particular name over a given period.

Name

John

Gender:

☐ Male

☒ Female

Period (1880 - 2019):

asdf

to

asdf

REPORT

Console

Please input numbers into period field

Generate a brief report in response to the queries on the popularity of a particular name over a given period.

Name Gender: ☒ Male ☐ Female

Period (1880 - 2019): to

REPORT

Console

There was no Ida (M) born from 2000 to 2019!

Generate a brief report in response to the queries on the popularity of a particular name over a given period.

Name Gender: ☒ Male ☐ Female

Period (1880 - 2019): to

REPORT

Console

YEAR	RANK	COUNT	PERCENTAGE
1967	3096	8	0.000459
1968	not ranked	0	0.000000

The name Ida (M) has not been ranked in the year 1968.

Within the specified period, the year when the name Ida was most popular is 1967.

In that year, the number of births is 8, which represents a 0.00046 percent of the total male birth in 1967.

Generate a brief report in response to the queries on the popularity of a particular name over a given period.

Name Gender: ☒ Male ☐ Female

Period (1880 - 2019): to

REPORT

Console

2005	11	19041	0.934512
2006	10	18941	0.922881
2007	8	18869	0.910605
2008	7	18380	0.902622
2009	5	17899	0.904308
2010	5	17030	0.889829
2011	3	17314	0.914522
2012	5	16844	0.891493
2013	5	16570	0.880698
2014	5	16687	0.877628
2015	5	15920	0.832175
2016	3	15781	0.833443
2017	3	14997	0.812638
2018	3	14590	0.806449
2019	4	13542	0.760809

In the year 2019 the number of birth with name William is 13542, which represents 0.76081 percent of total male births in 2019. Within the specified period, the year when the name William was most popular is 2011.

In that year, the number of births is 17314, which represents a 0.91452 percent of the total male birth in 2011.

42, which represents 0.76081 percent of total male births in 2019.\n ;

Task 3 - Chau Chun Wang (cwchauaa)

The screenshot shows a web application window titled "Team T-51: Popular Names". The interface includes a navigation bar with tabs: "Task Zero", "Reporting 1", "Reporting 2", "Reporting 3" (which is active), "Application1", "Application 2", and "Application 3".

Below the navigation bar, there is a text box containing the instruction: "Generate a brief report in response to the queries on identifying the names that have maintained a high level of popularity within Top N over a given period."

Below the instruction, there are three input fields:

- "Gender of Interest:" with two radio buttons: "Male" (selected) and "Female".
- "Period (1880 - 2019):" with two text boxes: "1900" and "1945", separated by the word "to".
- "Level of popularity:" with a text box containing the value "10".

Below these input fields is a button labeled "REPORT".

At the bottom of the window, there is a "Console" area which is currently empty. To the right of the console, there is a vertical scrollbar and a small "+ 1" indicator.

Task 3

Name	Lowest Rank [in year]	Highest Rank [in year]	Gross Trend
Charles	7 [1908]	5 [1900]	DOWN
James	4 [1920]	1 [1940]	UP
Robert	7 [1901]	1 [1924]	UP
John	3 [1929]	1 [1900]	DOWN
William	4 [1926]	2 [1900]	DOWN
<div> <div>5 names are found to be maintained at a high level of popularity within Top 10 over the period from year 1900 to year 1945.</div> </div>			

Team T-51: Popular Names

Task ZeroReporting 1Reporting 2Reporting 3Application1Application 2Application 3

Generate a brief report in response to the queries on identifying the names that have maintained a high level of popularity within Top N over a given period.

Gender of Interest: ☐ Male ☒ Female

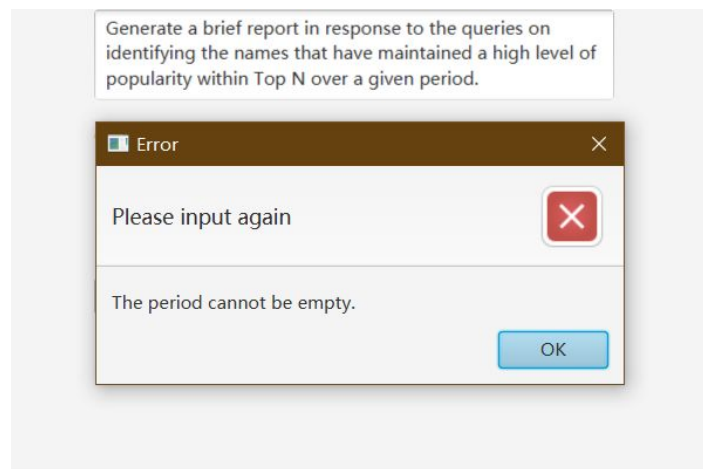
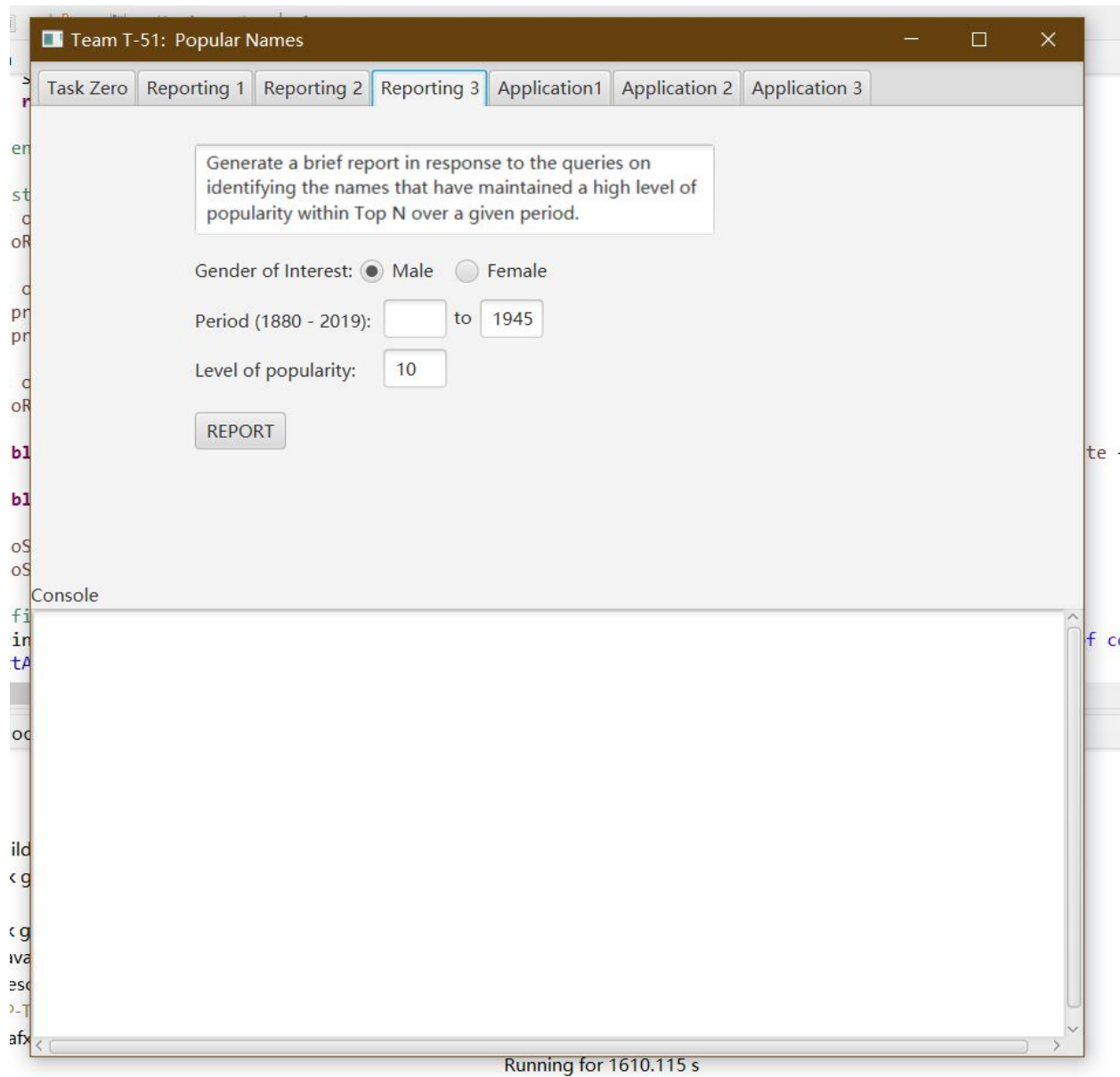
Period (1880 - 2019): to

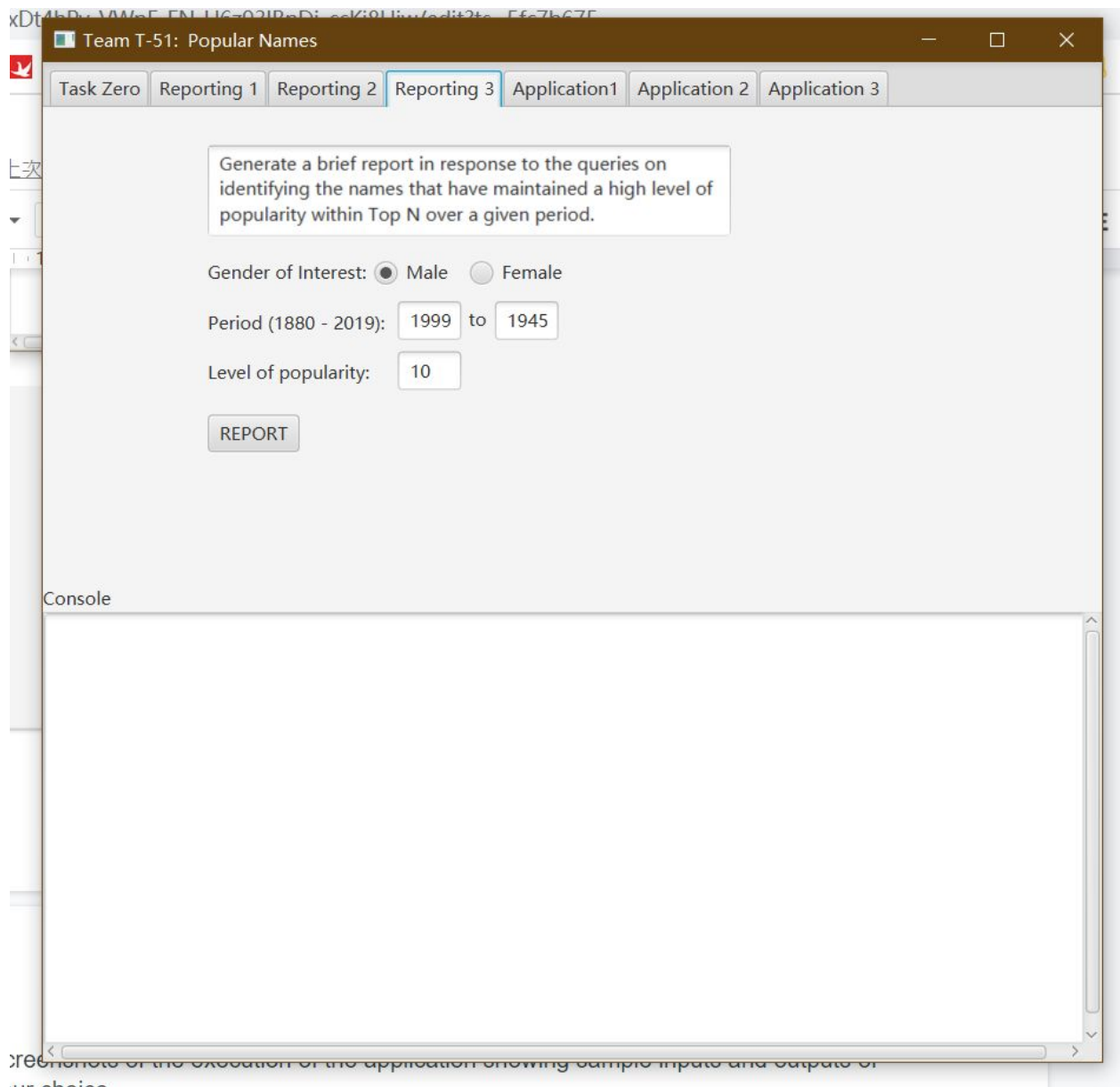
Level of popularity:

REPORT

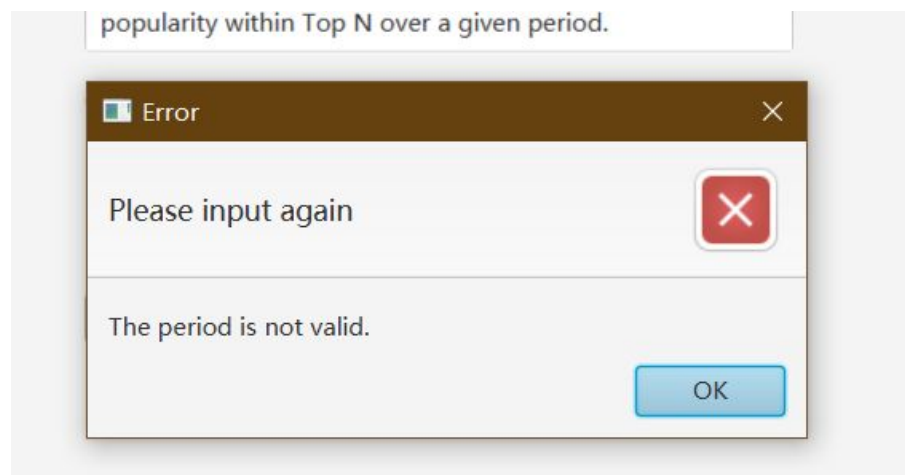
Console

Task 3			
Name	Lowest Rank [in year]	Highest Rank [in year]	Gross Trend
Judith	9 [1945]	6 [1941]	DOWN
Barbara	3 [1945]	2 [1941]	DOWN
Patricia	4 [1944]	3 [1941]	DOWN
Nancy	9 [1943]	7 [1944]	UP
Carol	5 [1942]	4 [1941]	DOWN
Linda	5 [1941]	2 [1945]	UP
Mary	1 [1941]	1 [1941]	FLAT
Sandra	9 [1941]	6 [1942]	UP
8 names are found to be maintained at a high level of popularity within Top 10 over the period from year 1941 to year 1945.			





preference of the execution of the application showing sample inputs and outputs of our choice



Team T-51: Popular Names

Task Zero Reporting 1 Reporting 2 Reporting 3 Application1 Application 2 Application 3

Generate a brief report in response to the queries on identifying the names that have maintained a high level of popularity within Top N over a given period.

Gender of Interest: ☒ Male ☐ Female

Period (1880 - 2019): 1999 to 2999

Level of popularity: 10

REPORT

Console

Error


Please input again

The period should not be later than 2019.

OK

Sample Execution Screenshots (Rec. Task)

Task 4 - Chan Chin Ho Ryan (chrchanaa)

 learn I-51: Popular Names

Task Zero

Reporting 1

Reporting 2

Reporting 3

Application1

Application 2

Application 3

Generate a brief report in response to the queries on the recommended names for newborn.

Name (Dad)

Name (Mom)

Year of birth (Dad)

Year of birth (Mom)

Vintage Year

Range: 1880 - 2019

REPORT

Console

```
Name field cannot be blank
```

Task Zero Reporting 1 Reporting 2 Reporting 3 Application1 Application 2 Application 3

Generate a brief report in response to the queries on the recommended names for newborn.

Name (Dad)

Name (Mom)

Year of birth (Dad)

Year of birth (Mom)

Vintage Year Range: 1880 - 2019

REPORT

Console

Year of birth cannot be blank

Generate a brief report in response to the queries on the recommended names for newborn.

Name (Dad)

Name (Mom)

Year of birth (Dad)

Year of birth (Mom)

Vintage Year Range: 1880 - 2019

REPORT

Console

Year of birth cannot be blank

Generate a brief report in response to the queries on the recommended names for newborn.

Name (Dad)

Name (Mom)

Year of birth (Dad)

Year of birth (Mom)

Vintage Year Range: 1880 - 2019

REPORT

Console

Year of birth must be between 1880 and 2019

Generate a brief report in response to the queries on the recommended names for newborn.

Name (Dad)

Name (Mom)

Year of birth (Dad)

Year of birth (Mom)

Vintage Year Range: 1880 - 2019

REPORT

Console

Vintage year must be between 1880 and 2019

Generate a brief report in response to the queries on the recommended names for newborn.

Name (Dad)

Name (Mom)

Year of birth (Dad)

Year of birth (Mom)

Vintage Year Range: 1880 - 2019

REPORT

Console

Recommended name for baby boy: Liam
Recommended name for baby girl: Aubrey

Task Zero Reporting 1 Reporting 2 Reporting 3 Application1 Application 2 Application 3

Generate a brief report in response to the queries on the recommended names for newborn.

Name (Dad)

Name (Mom)

Year of birth (Dad)

Year of birth (Mom)

Vintage Year

Range: 1880 - 2019

REPORT

Console

Recommended name for baby boy: Syed
Recommended name for baby girl: Emily

Task Zero Reporting 1 Reporting 2 Reporting 3 Application1 Application 2 Application 3

Generate a brief report in response to the queries on the recommended names for newborn.

Name (Dad)

Name (Mom)

Year of birth (Dad)

Year of birth (Mom)

Vintage Year Range: 1880 - 2019

REPORT

Console

```
Recommended name for baby boy: Syed
Recommended name for baby girl: Emily
```

Task 5 - Han Byul (Tommy) Yoon (hbyoon)

Team T-51: Popular Names

Task Zero

Reporting 1

Reporting 2

Reporting 3

Application1

Application 2

Application 3

Return a recommended name for compatible pairs according to the NK-T5 Algorithm of Universal

Name

Tommy

Gender:

☒ Male

☐ Female

YOB (1880-2019)

asdf

Mate Gender:

☒ Male

☐ Female

Preference:

☐ Younger

☒ Older

REPORT

Console

Please input a number in the YOB field.

Task Zero Reporting 1 Reporting 2 Reporting 3 Application1 Application 2 Application 3

Return a recommended name for compatible pairs
according to the NK-T5 Algorithm of Universal

Name Tommy

Gender: ☒ Male ☐ Female

YOB (1880-2019) 1997

Mate Gender: ☐ Male ☒ Female

Preference: ☒ Younger ☐ Older

REPORT

Console

According to the NK-T5 Algorithm of Universal Compatibility, the recommended name of the soulmate is Meredith.

Team T-51: Popular Names

Task Zero

Reporting 1

Reporting 2

Reporting 3

Application1

Application 2

Application 3

Return a recommended name for compatible pairs according to the NK-T5 Algorithm of Universal

Name

Angel

Gender:

Male

☒ Female

YOB (1880-2019)

2000

Mate Gender:

☒ Male

☐ Female

Preference:

Younger

☒ Older

REPORT

Console

According to the NK-T5 Algorithm of Universal Compatibility, the recommended name of the soulmate is Colin.

Task Zero Reporting 1 Reporting 2 Reporting 3 Application1 Application 2 Application 3

Return a recommended name for compatible pairs
according to the NK-T5 Algorithm of Universal

Name

Gender:

☒

Male

☐

Female

YOB (1880-2019)

Mate Gender:

☒

Male

☐

Female

Preference:

☒

Younger

☐

Older

REPORT

Console

Name field cannot be blank

Team T-51: Popular Names

Task Zero

Reporting 1

Reporting 2

Reporting 3

Application1

Application 2

Application 3

Return a recommended name for compatible pairs according to the NK-T5 Algorithm of Universal

Name

Angel

Gender:

☒ Male

☐ Female

YOB (1880-2019)

Mate Gender:

☒ Male

☐ Female

Preference:

☒ Younger

☐ Older

REPORT

Console

Please input a number in the YOB field.

Team T-51: Popular Names

Task Zero

Reporting 1

Reporting 2

Reporting 3

Application1

Application 2

Application 3

Return a recommended name for compatible pairs according to the NK-T5 Algorithm of Universal

Name

Angel

Gender:

☒ Male

☐ Female

YOB (1880-2019)

2020

Mate Gender:

☒ Male

☐ Female

Preference:

☒ Younger

☐ Older

REPORT

Console

Please input valid year of birth (1880 - 2019)

Return a recommended name for compatible pairs
according to the NK-T5 Algorithm of Universal

Name

Gender: ☒ Male ☐ Female

YOB (1880-2019)

Mate Gender: ☒ Male ☐ Female

Preference: ☐ Younger ☒ Older

REPORT

Console

There exists no data for anyone born in year before 1880

Team T-51: Popular Names

Task Zero

Reporting 1

Reporting 2

Reporting 3

Application1

Application 2

Application 3

Return a recommended name for compatible pairs
according to the NK-T5 Algorithm of Universal Compatibility

Name

Tommy

Gender:

☒ Male

☐ Female

YOB (1880-2019)

2019

Mate Gender:

☒ Male

☐ Female

Preference:

☒ Younger

☐ Older

REPORT

Console

There exists no data for anyone born in year after 2019

Task 6 - Chau Chun Wang (cwchauaa)

Team T-51: Popular Names

Task Zero Reporting 1 Reporting 2 Reporting 3 Application1 Application 2 Application 3

Prediction on Scores for Compatible Pairs

Your information:	Soulmate information:
Name: <input type="text" value="Mary"/>	Name: <input type="text" value="Emma"/>
Gender: <input type="radio"/> Male <input checked="" type="radio"/> Female	Gender: <input type="radio"/> Male <input checked="" type="radio"/> Female
YOB: <input type="text" value="1999"/>	Preference: <input type="text" value="No preference"/>

Console

According to the NK-T5 Algorithm of Universal Compatibility:
The score of compatibility for you and your soulmate is 78.0%

Team T-51: Popular Names

Task ZeroReporting 1Reporting 2Reporting 3Application1Application 2Application 3

Prediction on Scores for Compatible Pairs

Your information:

Name: Mary

Gender: ☒ Male ☐ Female

YOB: 1999

Soulmate information:

Name: Emma

Gender: ☐ Male ☒ Female

Preference: Younger

Submit

Console

According to the NK-T5 Algorithm of Universal Compatibility:
The score of compatibility for you and your soulmate is 23.2%

Team T-51: Popular Names

Task ZeroReporting 1Reporting 2Reporting 3Application1Application 2Application 3

Prediction on Scores for Compatible Pairs

Your information:

Name:

Gender: ☐ Male ☒ Female

YOB:

Soulmate information:

Name:

Gender: ☐ Male ☒ Female

Preference:

Submit

Error

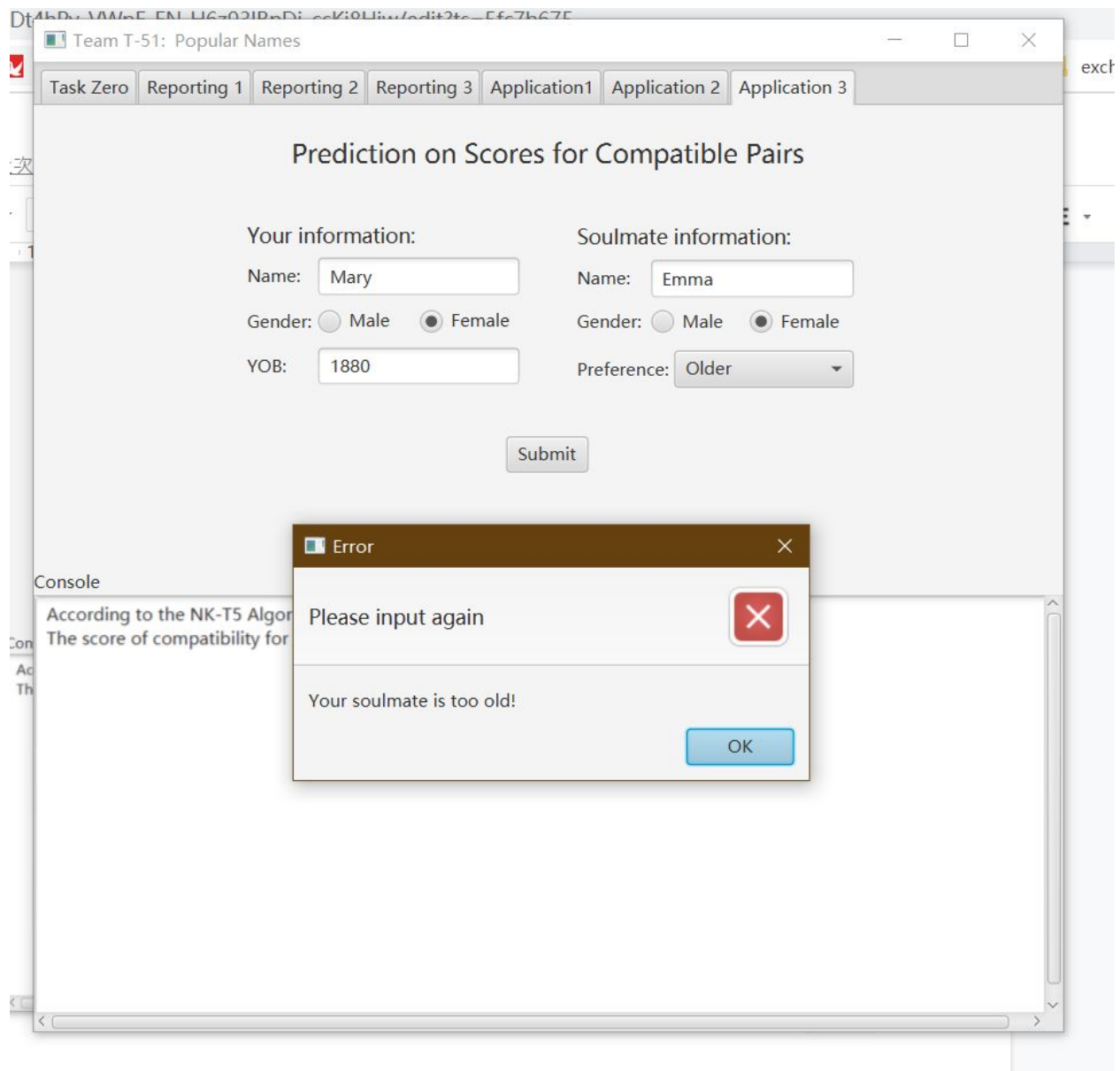
Please input again

Your soulmate is too young!

OK

Console

According to the NK-T5 Algo
The score of compatibility for



Team T-51: Popular Names

Task ZeroReporting 1Reporting 2Reporting 3Application1Application 2Application 3

Prediction on Scores for Compatible Pairs

Your information:

Name: Akjdsa

Gender: ☐ Male ☒ Female

YOB: 2000

Soulmate information:

Name: Kjdsa

Gender: ☐ Male ☒ Female

Preference: Older

Submit

Console

According to the NK-T5 Algorithm of Universal Compatibility:
The score of compatibility for you and your soulmate is 97.1%

Test Report on Unit Testing

Test Summary

67	0	0	2m15.56s	100%
tests	failures	ignored	duration	successful

Packages


Classes

Class	Tests	Failures	Ignored	Duration	Success rate
comp3111.popnames.AnalyzeNamesTest	14	0	0	4.508s	100%
comp3111.popnames.ControllerTest	50	0	0	2m8.56s	100%
comp3111.popnames.JavaFXTest	3	0	0	2.499s	100%

Generated by [Gradle 6.3](#) at Dec 2, 2020, 11:24:29 PM

Coverage Test Report

PopNames3111

Element	Missed Instructions	Cov.	Missed Branches	Cov.	Missed Cxt	Cxt	Missed Lines	Lines	Missed Methods	Methods	Missed Classes	Classes
 comp3111.popnames	<div><div></div></div>	91%	<div><div></div></div>	80%	73	218	49	635	10	34	1	4
Total	285 of 3,404	91%	71 of 368	80%	73	218	49	635	10	34	1	4

Supplementary Notes

Task 1 - Chan Chin Ho Ryan (chrchanaa):

Enter the number of top names(N) the user wants to check and the period of interest (y1, y2). A table will be printed in the TextArea to show the result. FrequentWordnum and FrequentWordname functions were added to AnalyzeName.java to check the most frequent name appears in an array and the number of times it appears. This is helpful for generating a summary for task 1.

Task 2 - Han Byul (Tommy) Yoon (hbyoon):

Task 2 generates a report on the popularity of a particular name along with the illustration of query results based on the user's input. In this project's particular implementation, a given name's "most popular year" was defined as the year in which the name ranked the lowest (highest rank, logically speaking) within the input period. In the case that the name ranked the same in multiple years, the year with the highest percentage of birth for the input gender's total birth was selected. In the case that the name was not recorded in any dataset of input period, the table is simply dismissed. The illustration of query results was implemented by printing to the text area console in tabular format.

Task 3 - Chau Chun Wang (cwchauaa):

The result is shown in a new pop-up window, which consists of a table embedded inside a scroll pane and a summary below the table.

Task 4 - Chan Chin Ho Ryan (chrchanaa):

Enter the Name of dad and mom and their year of birth to get recommendations on the name of newborn baby boy or girl. Vintage year is optional.

Task 5 - Han Byul (Tommy) Yoon (hbyoon):

Task 5 generates a recommendation/prediction on names for compatible pairs according to the NK-T5 Algorithm of Universal Compatibility. In this projects' particular implementation, if the input name does not exist in the input year (his/her year of birth), then the "magic number" was selected as 1.

Task 6 - Chau Chun Wang (cwchauaa):

The algorithm is different from the given algorithm by modifying two main components, which is the magic number for oRank / oRankMate and the computation for score. The magic number for oRank / oRankMate is used whenever the input name and gender could not be found in the corresponding dataset. For example, the name "Asdas" does

not exist in any datasets, or the name “Tom” does not exist in gender Female in any datasets, so their magic numbers will be used. The magic number is simply the hash value of the name modulo by 100, so it is in range 0 - 99. The computation for score is mainly based on how close their ranks are. If their ranks are closer, then the score will be larger.

Sidenote:

We have implemented a new class called NumberTextField for the text fields which only accept numbers as inputs, such as Year of Birth. This new class extends the class TextField. In the application, when users want to type in such kind of text fields, only number input will appear and all other character like symbols will not appear.