

Extra Info [Team34]

Screenshots of the execution of the application showing sample inputs and outputs of your choice

Task1: TopNameforBirth

Case1: When the user type a wrong number (situation that cannot convert to a integer), it will show “Please provide legal number!”.

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

* Top N (N \geq 1): 3 Gender: ☒ Male ☐ Female

* Period (1880 - 2019): to 1945

REPORT

*: must filled

Console

Please provide legal number!

Case2: When the user type a wrong TopN (situation that it is smaller than1 or larger than the maximum number of distinct names), it will show “The parameter Top N is illegal(<1 or > the number of total distinct names in the period), please type again!”.

Team T-00: Popular Names

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

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

* Top N (N>=1): 30000 Gender: ☒ Male ☐ Female

* Period (1880 - 2019): 1941 to 1945

REPORT

*: must filled

Console

The parameter Top N is illegal(<1 or > the number of total distinct names in the period), please type again!

Team T-00: Popular Names

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

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

* Top N (N>=1): 0 Gender: ☒ Male ☐ Female

* Period (1880 - 2019): 1941 to 1945

REPORT

*: must filled

Console

The parameter Top N is illegal(<1 or > the number of total distinct names in the period), please type again!

Case3: When the user types a wrong period (situation that year is out of bound or year2 larger than year1, it will show “the range is illegal, please type again!”).

Team T-00: Popular Names

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

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

* Top N (N>=1): 10 Gender: ☒ Male ☐ Female

* Period (1880 - 2019): 1870 to 1945

REPORT

*: must filled

Console

the range is illegal, please type again!

Team T-00: 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

* Top N (N>=1): Gender: ☒ Male ☐ Female

* Period (1880 - 2019): to

*: must filled

Console

the range is illegal, please type again!

Case4: When the user types correct input, it will show a short conclusion and the table.

Team T-00: 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

* Top N (N>=1): Gender: ☒ Male ☐ Female

* Period (1880 - 2019): to

*: must filled

Console

Over the period 1941 to 1945, the name "James" for male has hold the top spot most often for a total of 5 times.

YEAR	Rank1	Rank2	Rank3	Rank4	Rank5
1941	James	Robert	John	William	Richard
1942	James	Robert	John	William	Richard
1943	James	Robert	John	William	Richard
1944	James	Robert	John	William	Richard
1945	James	Robert	John	William	Richard

Task2:Popularity of Name

Case1: When the inputs are correct

Team T-34: 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

Console

In the year 1945, the number of birth with name " David " is 37,093, which represents 2.756594 percent of total M births in 1945. The year when the name "David" was most popular in 1945. In that year, the number of birth is 37,093, which represents 2.756594 percent of total M births in 1945.

Year	Rank	Count	Percentage
1941	7	30551	2.487986
1942	6	35892	2.599412
1943	6	37237	2.609742
1944	6	37374	2.742935
1945	6	37093	2.756594

Case2: When we have empty or not exist name as name input.

Team T-34: 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

Console

In the year 2019, the number of birth with name " " is 0, which represents 0.000000 percent of total M births in 2019. The year when the name "" was most popular in 2019. In that year, the number of birth is 0, which represents 0.000000 percent of total M births in 2019.

Year	Rank	Count	Percentage
2015	-1	0	0.000000
2016	-1	0	0.000000
2017	-1	0	0.000000
2018	-1	0	0.000000
2019	-1	0	0.000000

Team T-34: 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

Console

In the year 2019, the number of birth with name " abc " is 0, which represents 0.000000 percent of total M births in 2019. The year when the name "abc" was most popular in 2019. In that year, the number of birth is 0, which represents 0.000000 percent of total M births in 2019.

Year	Rank	Count	Percentage
2015	-1	0	0.000000
2016	-1	0	0.000000
2017	-1	0	0.000000
2018	-1	0	0.000000
2019	-1	0	0.000000

Case3: When the input year is empty or not an integer

Team T-34: 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

Console

Please provide time peroid

Team T-34: 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

Console

Please provide legal time input

Case4: When starting year is larger than the ending year

Team T-34: Popular Names

Task ZeroReporting 1Reporting 2Reporting 3Application1Application 2Application 3

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

Name

David

Gender:

☒ Male

☐ Female

Period (1880 - 2019):

2019

to

1205

REPORT

Console

Input year out of range!!
Please check your input

Task3: Trend in Popularity of Names (Simplified Task)

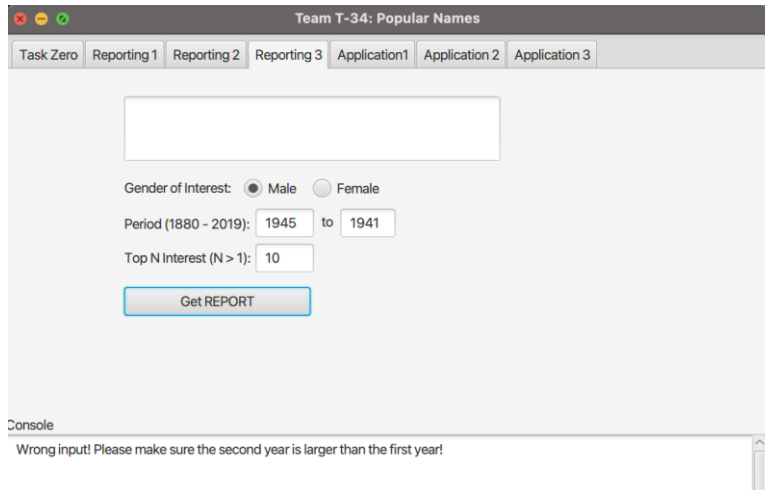
Case1: When the user input a wrong year (situation that year cannot converted into to an integer), the system will show “The input is incorrect. Please enter a valid input!”

The screenshot shows a web application titled "Team T-34: Popular Names". It has a navigation bar with tabs: "Task Zero", "Reporting 1", "Reporting 2", "Reporting 3", "Application 1", "Application 2", and "Application 3". The main content area displays a message: "9 names are found to be maintained at a high level of popularity within Top 10 over the period from year 1941 to year 1945." Below this, there are form elements: "Gender of Interest:" with radio buttons for "Male" (selected) and "Female"; "Period (1880 - 2019):" with input fields for "1941" and "1945" separated by "to"; and "Top N Interest (N > 1):" with an input field containing "10". A "Get REPORT" button is at the bottom. A "Console" panel at the bottom shows the error message: "The input is incorrect. Please enter a valid input!"

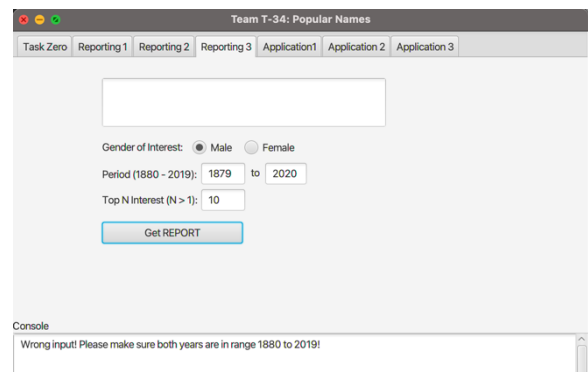
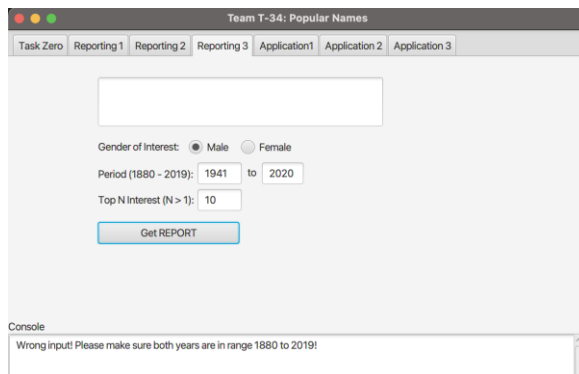
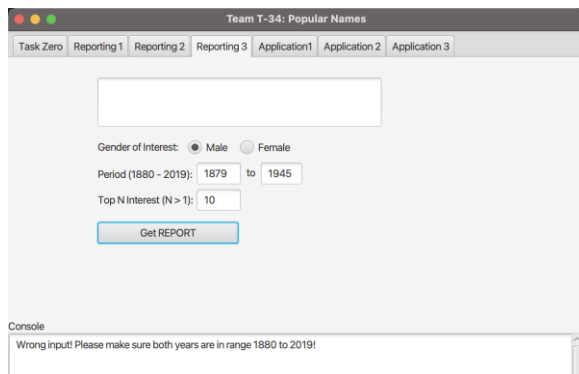
Case2: When the user input a wrong Top N (situation that N cannot be converted into an integer), the system will show “The input N is incorrect. Please enter a valid input!”

The screenshot shows the same web application as Case 1. The "Period (1880 - 2019):" input fields now contain "1941" and "1945". The "Top N Interest (N > 1):" input field is empty. The "Get REPORT" button is still present. The "Console" panel at the bottom shows the error message: "The input N is incorrect. Please enter a valid input!"

Case3: When the user input a larger year first, the system will show “Wrong input! Please make sure the second year is larger than the first year!”



Case4: When the user input a wrong year (situation that either y1 or y2 or both are smaller than 1880 or larger than 2019), the system will show “Wrong input! Please make sure both years are in range 1880 to 2019!”



Case5: When the user input a wrong Top N (situation that N is smaller than 1), the system will show “Wrong input! Please make sure N is larger or equal to 1!”

Team T-34: Popular Names

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

Gender of Interest: ☒ Male ☐ Female

Period (1880 - 2019): 1941 to 1945

Top N Interest (N > 1): -1

Get REPORT

Console

Wrong input! Please make sure N is larger or equal to 1!

Case6: When the user input a wrong Top N (situation that N is larger than the maximum number of distinct names in any year from y1 to y2), it will show “Wrong input! Your input N is too large. Please make it smaller!”

Team T-34: Popular Names

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

Gender of Interest: ☒ Male ☐ Female

Period (1880 - 2019): 1941 to 1945

Top N Interest (N > 1): 10000

Get REPORT

Console

Wrong input! Your input N is too large. Please make it smaller!

Case7: When all user inputs are correct and valid, the system will show a brief report and a table.

Team T-34: Popular Names

Task ZeroReporting 1Reporting 2Reporting 3Application1Application 2Application 3

9 names are found to be maintained at a high level of popularity within Top 10 over the period from year 1941 to year 1945.

Gender of Interest: ☒ Male ☐ Female

Period (1880 - 2019): 1941 to 1945

Top N Interest (N > 1): 10

Get REPORT

Console

Name	Lowest Rank[in year]	Highest Rank[in year]	Gross Trend
James	1 [1941]	1 [1941]	FLAT
Robert	2 [1941]	2 [1941]	FLAT
John	3 [1941]	3 [1941]	FLAT
William	4 [1941]	4 [1941]	FLAT
Richard	5 [1941]	5 [1941]	FLAT
Charles	7 [1942]	6 [1941]	DOWN
David	7 [1941]	6 [1942]	UP
Thomas	8 [1941]	8 [1941]	FLAT
Ronald	10 [1944]	9 [1941]	DOWN

Task4: NameRecommendation

Case1: When the user types correctly (can choose not to type in VintageYear and it will be automatically set to 2019) it will generate the recommended name for both gender, based on the algorithm given in task4 description from Canvas”.

The screenshot shows a web application interface for baby name recommendation. At the top, there is a navigation bar with tabs: Task Zero, Reporting 1, Reporting 2, Reporting 3, Application1, Application 2, and Application 3. The main content area contains a text box with the instruction: "Please type in the names and births of the parents and the vintage year for the baby, we will then recommend you the best names!". Below this, there are input fields for: * Dad's name (David), * Mom's name (Mary), * Dad's birth year (1880 - 2019) (2000), * Mom's birth year (1880 - 2019) (1999), and Vintage year (1880 - 2019) (2019). A red asterisk followed by ": must filled" is shown. A blue button labeled "GENERATE" is present. At the bottom, a console window displays the output: "The recommended name for baby boy is " Logan " " and "The recommended name for baby girl is " Aubrey " ".

Please type in the names and births of the parents and the vintage year for the baby, we will then recommend you the best names!

* Dad's name David * Mom's name Mary

* Dad's birth year (1880 - 2019) 2000 * Mom's birth year (1880 - 2019) 1999

Vintage year (1880 - 2019) 2019

*: must filled

GENERATE

Console

The recommended name for baby boy is " Logan " "

The recommended name for baby girl is " Aubrey " "

Case2: When the user types wrong numbers, it will generate the warning that “Please provide legal number input and no spaces inside numbers is allowed!”.

Team T-00: Popular Names

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

Please type in the names and births of the parents and the vintage year for the baby, we will then recommend you the best names!

* Dad's name * Mom's name

* Dad's birth year (1880 - 2019) * Mom's birth year (1880 - 2019)

Vintage year (1880 - 2019)

GENERATE

* : must filled

Console

Please provide legal number input and no spaces inside numbers is allowed!

Case3: When the user types white spaces in names, which is not allowed as I set, it will generate the warning that “You should not type any white space in the names and please ensure you have finished your input!”.

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

Please type in the names and births of the parents and the vintage year for the baby, we will then recommend you the best names!

* Dad's name * Mom's name

* Dad's birth year (1880 - 2019) * Mom's birth year (1880 - 2019)

Vintage year (1880 - 2019)

GENERATE

* : must filled

Console

You should not type any white space in the names and please ensure you have finished your input!

Case4: When the user types an out-of-range number for Dad/Mom’s birth year, it will generate the warning that “The year of Dad/Mom’s birth is out of range! Please type a new one!”.

Team T-34: Popular Names

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

Please type in the names and births of the parents and the vintage year for the baby, we will then recommend you the best names!

* Dad's name David * Mom's name Mary

* Dad's birth year (1880 - 2019) 2020 * Mom's birth year (1880 - 2019) 1999

Vintage year (1880 - 2019) 2019

GENERATE

*: must filled

Console

The year of Dad/Mom's birth is out of range! Please type a new one!

Case5: When the user types an out-of-range number for Vintage year, it will generate the warning that “The year of Vintage year is out of range! Please type a new one!”.

Team T-34: Popular Names

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

Please type in the names and births of the parents and the vintage year for the baby, we will then recommend you the best names!

* Dad's name David * Mom's name Mary

* Dad's birth year (1880 - 2019) 2000 * Mom's birth year (1880 - 2019) 1999

Vintage year (1880 - 2019) 2020

GENERATE

*: must filled

Console

The year of Vintageyear is out of range! Please type a new one!

Task5: Prediction on Names for Compatible Pairs

Case1: When all inputs are correct.

The screenshot shows the 'Team T-34: Popular Names' application window. The 'Application 1' tab is selected. The form contains the following fields and options:

- Name:** Zoey
- Year of birth (1880-2019):** 2000
- Gender:** ☐ Male ☒ Female
- Mate Gender:** ☒ Male ☐ Female
- Preference:** ☐ Younger ☒ Older

A blue 'Predict' button is located below the form. The console at the bottom shows the text 'Dale'.

Case2: When your preferred mate's year of birth out of range.

The screenshot shows the 'Team T-34: Popular Names' application window. The 'Application 1' tab is selected. The form contains the following fields and options:

- Name:** Zoey
- Year of birth (1880-2019):** 2019
- Gender:** ☐ Male ☒ Female
- Mate Gender:** ☒ Male ☐ Female
- Preference:** ☐ Younger ☒ Older

A blue 'Predict' button is located below the form. The console at the bottom shows the error message: 'Your invalid preferred mate's year!! Please check your input'.

The screenshot shows the 'Team T-34: Popular Names' application window. The 'Application 1' tab is selected. The form contains the following fields and options:

- Name:** Zoey
- Year of birth (1880-2019):** 1880
- Gender:** ☐ Male ☒ Female
- Mate Gender:** ☒ Male ☐ Female
- Preference:** ☒ Younger ☐ Older

A blue 'Predict' button is located below the form. The console at the bottom shows the error message: 'Your invalid preferred mate's year!! Please check your input'.

Case3: When the input name is empty or does not exist.

Team T-34: Popular Names

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

Name Year of birth (1880-2019)

Gender ☐ Male ☒ Female Mate Gender ☒ Male ☐ Female

Preference ☒ Younger ☐ Older

Console

Jacob

Team T-34: Popular Names

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

Name Year of birth (1880-2019)

Gender ☐ Male ☒ Female Mate Gender ☐ Male ☒ Female

Preference ☐ Younger ☒ Older

Console

Emily

Case4: When input year is empty or not an integer.

Team T-34: Popular Names

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

Name Year of birth (1880-2019)

Gender ☐ Male ☒ Female Mate Gender ☐ Male ☒ Female

Preference ☐ Younger ☒ Older

Console

Please provide your year of birth

Team T-34: Popular Names

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

Name Year of birth (1880-2019)

Gender ☐ Male ☒ Female Mate Gender ☐ Male ☒ Female

Preference ☐ Younger ☒ Older

Console

Please provide legal time input

Case5: When your name rank in your year of birth is larger than the total count of name in your preferred mate's year. (This can also be found in the test case)

Team T-34: Popular Names

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

Name Year of birth (1880-2019)

Gender ☐ Male ☒ Female Mate Gender ☐ Male ☒ Female

Preference ☒ Younger ☐ Older

Console

Emma

Task6: Prediction on Scores for Compatible Pairs

Case1: When the user input a wrong year of birth (situation that year cannot converted into to an integer), the system will show “The input is incorrect. Please enter a valid input!”

Team T-34: Popular Names

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

Name:

Gender: ☒ Male ☐ Female

Year of Birth:

Name of Mate:

Gender of Mate: ☒ Male ☐ Female

Preference: ☒ Younger ☐ Older

Console

The input is incorrect. Please enter a valid input!

Case2: When the user input a year of birth (year of birth >2019 or <1880), the system will show “Wrong input! Please make sure both years are in range 1880 to 2019!”

Team T-34: Popular Names

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

Name:

Gender: ☒ Male ☐ Female

Year of Birth:

Name of Mate:

Gender of Mate: ☒ Male ☐ Female

Preference: ☒ Younger ☐ Older

Console

Wrong input! Please make sure year of birth is in range 1880 to 2019!

Team T-34: Popular Names

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

Name:

Gender: ☒ Male ☐ Female

Year of Birth:

Name of Mate:

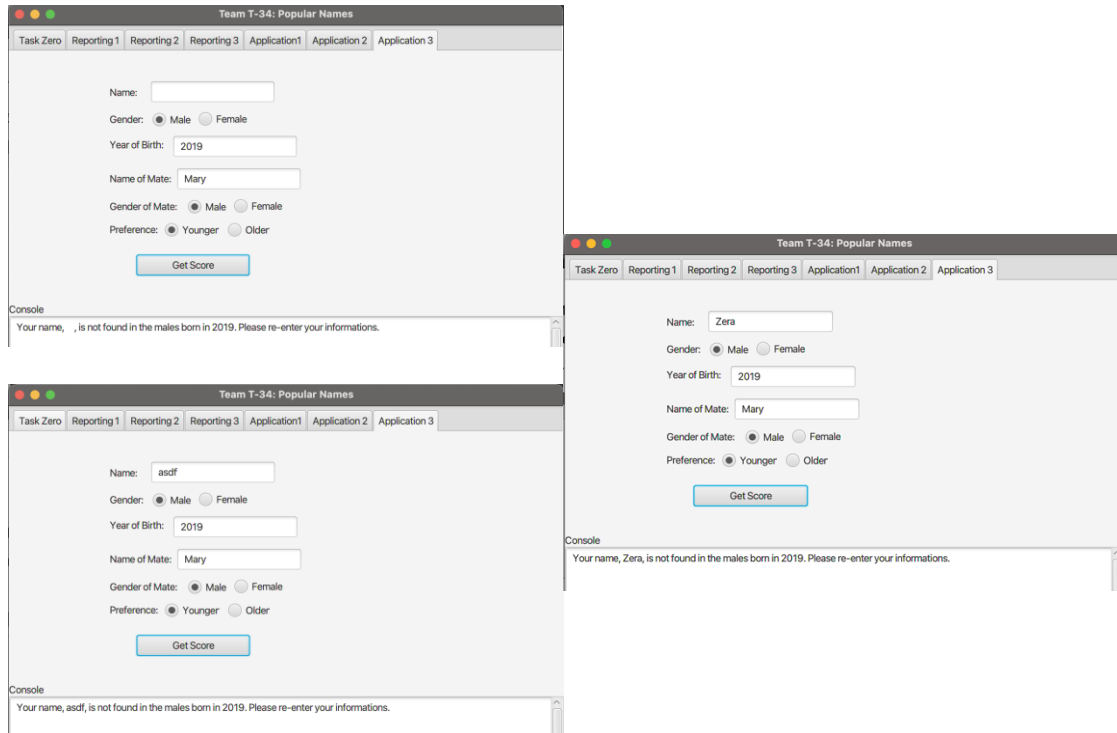
Gender of Mate: ☒ Male ☐ Female

Preference: ☒ Younger ☐ Older

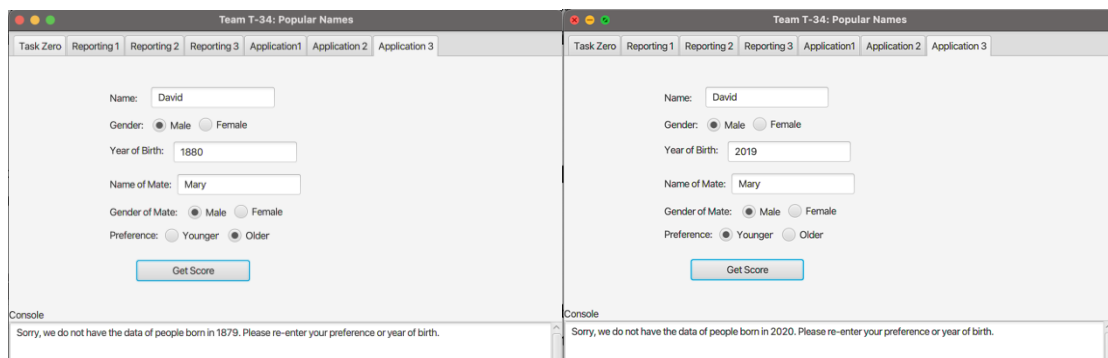
Console

Wrong input! Please make sure year of birth is in range 1880 to 2019!

Case3: When the user inputs a name that is either invalid or not found to be born in input year of birth, the system will show “Your name, %iName, is not found in the %iGender born in %iYOB. Please re-enter your informations.”



Case4: When the user inputs year of birth 1880 and mate preference of older, or the user inputs year of birth 2019 and mate preference of younger, the system will show “Sorry, we do not have the data of people born in %(1879 or 2020). Please re-enter your preference of year of birth.”



Case5: When the user inputs a mate name which is invalid or not found to be born in the mate’s year of birth calculated according to input preference, the system will show “There is no %iGender with name %iNameMate that suits your preference of

%iPreference mates. Please re-enter your mate's informations.”

The image displays three screenshots of a web application titled "Team T-34: Popular Names". The application has a navigation bar with tabs: Task Zero, Reporting 1, Reporting 2, Reporting 3, Application 1, Application 2, and Application 3. The main form contains the following fields and options:

- Name:
- Gender: ☒ Male ☐ Female
- Year of Birth:
- Name of Mate:
- Gender of Mate: ☒ Male ☐ Female
- Preference: ☒ Younger ☐ Older
-

The console at the bottom of each screenshot shows the following messages:

- Screenshot 1: "There is no male with name asdf that suits your preference of younger mates. Please re-enter your mate's informations."
- Screenshot 2: "There is no male with name that suits your preference of younger mates. Please re-enter your mate's informations."
- Screenshot 3: "There is no male with name Mary that suits your preference of younger mates. Please re-enter your mate's informations."

Case6: When all user inputs are correct and valid, the system will show a brief text indicating the compatibility score of you and your input mate.

The image shows a screenshot of the "Team T-34: Popular Names" application with the following inputs:

- Name:
- Gender: ☒ Male ☐ Female
- Year of Birth:
- Name of Mate:
- Gender of Mate: ☐ Male ☒ Female
- Preference: ☒ Younger ☐ Older
-

The console at the bottom displays the message: "The compatibility of you, Tom, and your mate, Mary, is 87.41%."

Jacoco and Test Summary:

PopNames3111

PopNames3111

Element	Missed Instructions	Cov.	Missed Branches	Cov.	Missed	Cxty	Missed	Lines	Missed	Methods	Missed	Classes
comp3111.popnames	<div><div></div></div>	62%	<div><div></div></div>	70%	78	236	273	680	15	58	1	9
Total	1,252 of 3,311	62%	105 of 356	70%	78	236	273	680	15	58	1	9

Test Summary

127
tests

0
failures

0
ignored

12.430s
duration

100%
successful

PackagesClasses

Package	Tests	Failures	Ignored	Duration	Success rate
comp3111.popnames	127	0	0	12.430s	100%

We do not add testcases for the controller so the total coverage is not that high.

Documentation on the implemented tasks using JavaDoc

Please check the file “Doc” inside the GitHub, thanks!

Supplementary Notes:

1. Task1: TopNamesforBirth:
 - a. Consider string with white spaces as illegal and will generate a message for users to retype.
 - b. When TopN is too large and larger than the available number of distinct names, we consider it as illegal and will generate a message for users to retype.
2. Task4: NameRecommendation:
 - a. Consider string with white spaces as illegal and will generate a message for users to retype.
3. Task5
 - a. The only hard constraint is the “Year”. With non-integer input or out of range input, the application will generate a warning message.
 - b. The application also checks the year of birth of your preferred mate. If your input year is 2019 with preference as younger or input year is 1880 with preference as older, the application will generate a warning message.
 - c. If your name rank is larger than the total number of name in your mate’s year, the application will give you the most popular name in your mate’s year.
4. Task6
Algorithm:
The algorithm used to generate the score is different from the one in the task description.
New algorithm:

Parameters: Input user name: s1

Input_mate_name: s2

Input_user_birth year: y1

Input_user_preference: p1

Input_user gender: g1

Input_mate gender: g2

Mate_birth_year: y2 (calculated by y1 and p1)

User_rank = rank of s1 in gender g1 of year y1

Mate_rank = rank of s2 in gender g2 of year y2

People_1 = unique people of gender g1 in year y1

People_2 = unique people of gender g2 in year y2

$$\text{Score} = (1.0 - | \text{User_rank} - \text{Mate_rank} | * 2 / (\text{people_1} + \text{people_2})) * 100\%$$

For the new algorithm, the score of compatibility will always be in range 0% to 100%. If the input name's rank and input name of birth's rank in their respective birth years, according to the preference selected, are close to each other, the score will be much closer to 100%. On the other hand, if the difference is large, the score will be much closer to 0%.