

# Comp 3111 project

The screenshot shows a web application titled "Team T-00: Popular Names". It has a navigation bar with tabs: "Task Zero", "Reporting 1", "Reporting 2", "Reporting 3", "Application 1", "Application 2" (which is active), and "Application 3".

The main content area is titled "Task #1: Prediction on Names for Compatible Pairs (Application)". Below the title, it says: "Develop and implement an online service using empirical data to help make informed decisions on predicting names for compatible pairs".

The interface is divided into three main sections:

- Left Section:** Contains two buttons: "I want a younger soulmate" (blue) and "I want an older soulmate" (blue).
- Middle Section:** Titled "Please input your info". It contains a text input field labeled "input your name here". Below this, there are radio buttons for "I am male" and "I am female". A "Choose algorithm" dropdown menu is set to "TSG2". A "get result" button is at the bottom.
- Right Section:** Titled "Please input your target's info". It contains a text input field labeled "input your year of birth(yyyy)". Below this, there are two buttons: "I want a male soulmate" (blue) and "I want a female soulmate" (blue).

At the bottom of the page, there is a "Console" section with a large empty text area.

Group members : Liu Pak Wai, Lui ka lung

## Added features

- UI theme changed
- warning noise for error alert
- some sound effect
- progress bar and input lock

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# TASK 1 showcase

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# Task 1 interface

Team T-02: Popular Names

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

Just Click the Buttons below to get the name report!

Bart Chart Pie Chart Table Summary

Enter Year of interest (1880 - 2019)

Enter Top N interest (1 - 10)

console

- Four buttons larger size than the task zero.
- text field with labels reminding user to write valid input
- Put the button on the top, input right below it
- Make sure user knows what can be generated

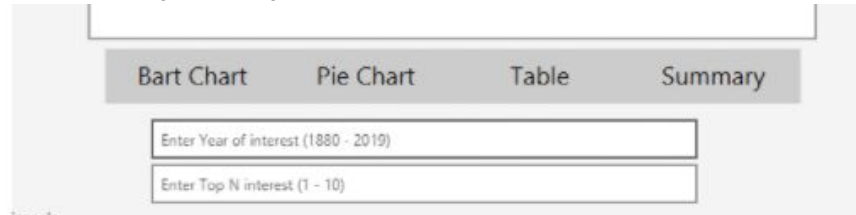


## Task 1 Data Reporting

- Task 1 reports the Top N popular both males and females names in sepecific year.
- Top N input by user between 1 - 10 inclusive
- year input by user between 1880 - 2019 inclusive
- There are total 4 buttons generate result on bar chart, tables, pie chart , summary in console.

## Task 1 Bart chart

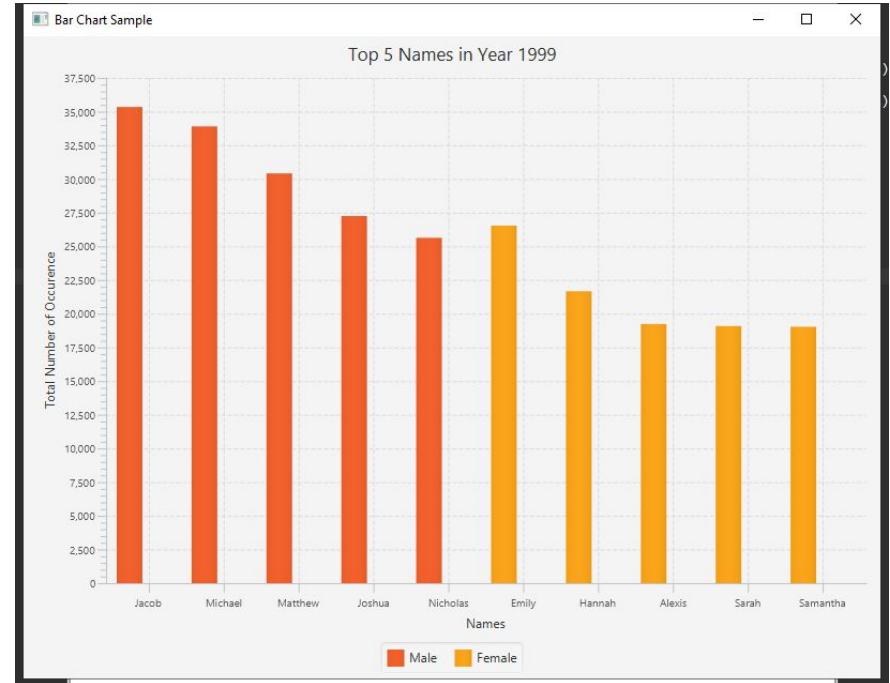
- Sound effect, there is a whistler sound reminding user that Bart chart is generated.
- There are two required input first box needs to fill year of interest between 1880 - 2019
- Second one is the Top N requires 1 - 10,



The screenshot shows a web interface with a navigation bar containing four tabs: "Bart Chart", "Pie Chart", "Table", and "Summary". The "Bart Chart" tab is currently selected. Below the tabs, there are two input fields. The first input field is labeled "Enter Year of interest (1880 - 2019)" and the second input field is labeled "Enter Top N interest (1 - 10)".

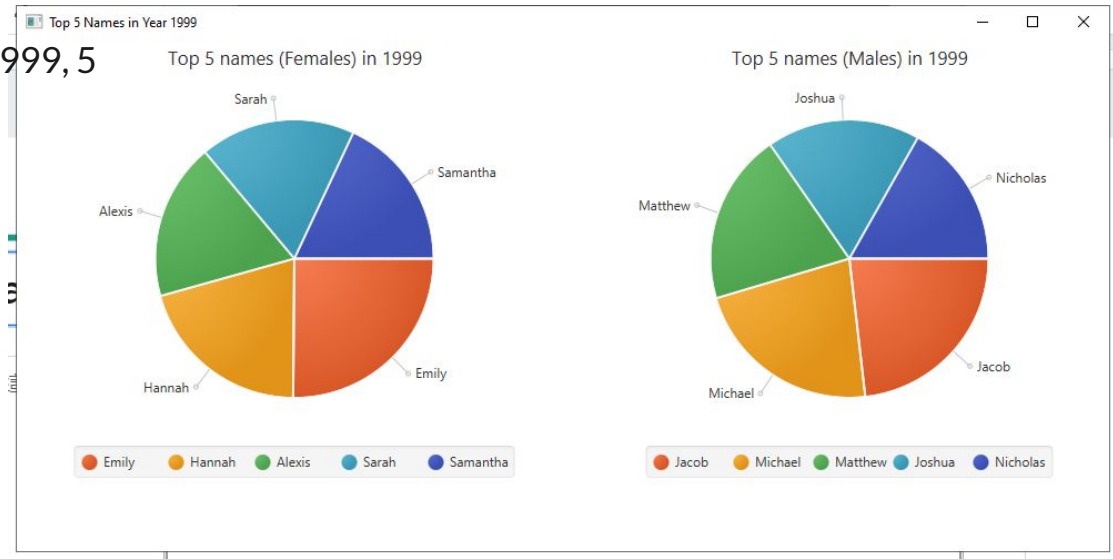
# Task 1 Barchart Output

- input valid year, topN. for example : 1999, 5
- Male shown on the left orange
- Female shown on the right in yellow
- Y shows the total occurrences
- X is the names ]
- Sound effect out~ once press button
- Make users easier to see the result



# Task 1 Pie chart output

- input valid year, topN. for example : 1999, 5
- Female on the left
- Male on the right
- title with the year, Top N
- name shows different color
- Sound effect out~ once press button
- Make users easier to see the result



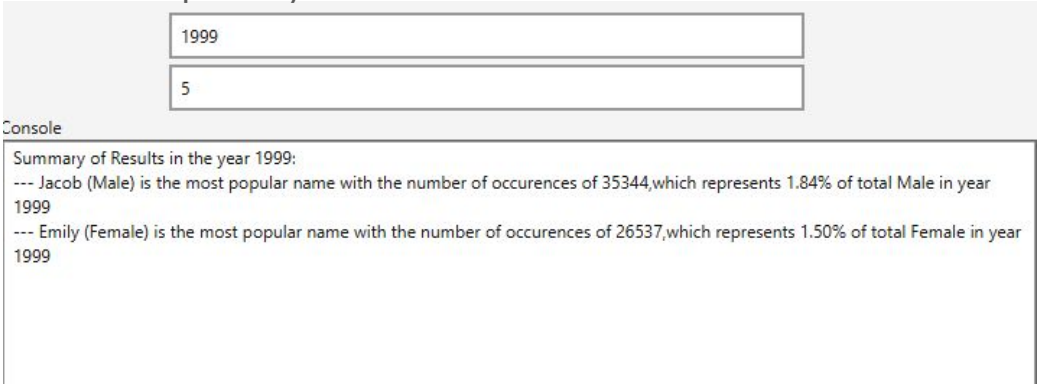






## Task 1 summary

- input valid input , (year only)
- Clicking Summary button
- sound effect
- giving the most popular names that is on specific year
- Result shown on the console



1999

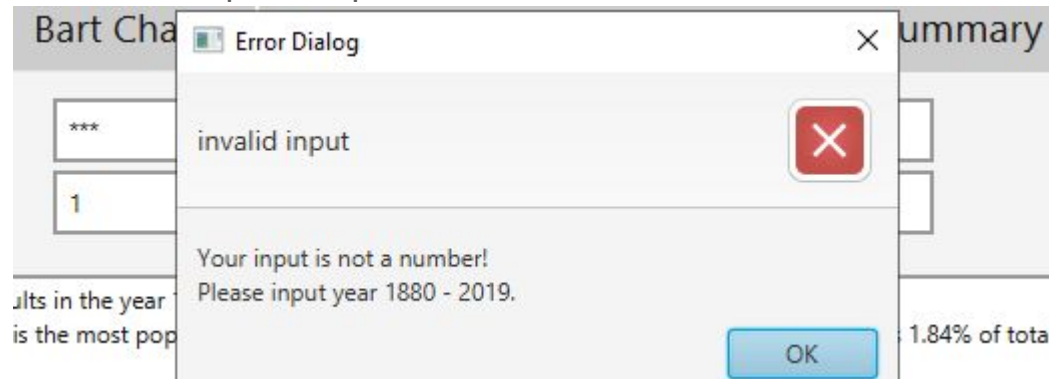
5

Console

Summary of Results in the year 1999:  
--- Jacob (Male) is the most popular name with the number of occurrences of 35344, which represents 1.84% of total Male in year 1999  
--- Emily (Female) is the most popular name with the number of occurrences of 26537, which represents 1.50% of total Female in year 1999

## Task 1 Alert : invalid input

- for year and the input N we expect users enter valid input digital number within range
- Year 1880 - 2019
- N 1 - 10
- if enters non numerical value into the “year” field, following message will be given out.
- if enters non numerical value into the “N” field, all buttons except summary will give alert
- PS : summary do not need top N as input



## Task 1 Alert : invalid input 0 digit

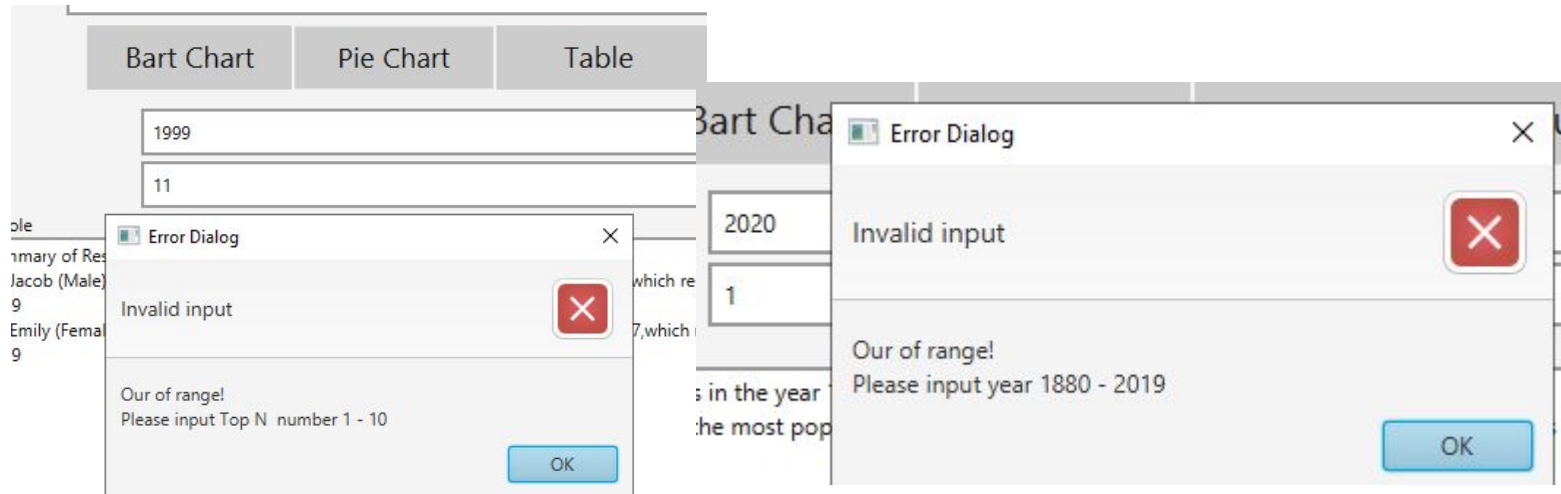
- input number with first digit = 0 is not allowed eg. 01,02..
- following out put with alert IMAGE and SOUND will be given



e) is the most popular name with the number of occurrences of 26537, which represents 1.50%

## Task 1 : Alert out of range

- Input  $N > 10$ , input  $N < 0$ . year  $> 2019$ , year  $< 1880$ .
- following out put with alert IMAGE and SOUND will be given



## Task 1 : Alert empty input



The screenshot shows a web application interface with a navigation bar containing four tabs: "Bart Chart", "Pie Chart", "Table", and "Sum". Below the tabs are two input fields. The first field is labeled "Enter Year of interest (1880 - 2019)" and is currently empty. The second field is labeled "Enter Top N interest (1 - 10)". An "Error Dialog" window is open in the foreground, displaying the message "Empty" and "Your input is empty! Please input year 1880 - 2019." with an "OK" button.

ole

Bart Chart Pie Chart Table Sum

Enter Year of interest (1880 - 2019)

Enter Top N interest (1 - 10)

Error Dialog

Empty

Your input is empty!  
Please input year 1880 - 2019.

OK

# TASK 2 showcase

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# TASK 3 showcase

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## Task 3 safelock

The button will lock if the input is invalid

This check for empty input

console will tell user the input is empty

Team T-02: Popular Names

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

Input the following information to view on the popularity of a name over a period  
Press the buttons below to see the data in the corresponding layout

Year of interest(start)	<input type="text" value="year(yyyy)"/>	Year of interest(end)	<input type="text" value="year(yyyy)"/>
Name of interest	<input type="text" value="Name(2~15 characters)"/>	Gender	<input type="text" value="M/F"/>

Bar chart Line chart Table Summary

console

input check:  
Please input starting year  
Please input end year  
Please input the name of interest  
Please input gender

## Task 3 safelock

The button will lock if the input is invalid

This check for overflow

console will tell user the input is invalid

- if the number is over 4 digit
- if name is out of range(2-15)

this also checks if gender is M/F or not

Team T-02: Popular Names

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

Input the following information to view on the popularity of a name over a period  
Press the buttons below to see the data in the corresponding layout

Year of interest(start) 2222222222222222 Year of interest(end) 2222222222222222  
Name of interest aaaaaaaaaaaaaaaaaaaaa Gender aaaaaaaaaaaaaaaaaaaaa

Bar chart Line chart Table Summary

Console

input check:  
Please input a valid number  
Please input a valid number  
Please input a valid name(2~15 characters)  
Please input valid gender(M/F)

## Task 3 safelock

The button will lock if the input is invalid

This check for year range

console will tell user the input out of range

range(e.g.1880-2019)

Team T-02: Popular Names

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

Input the following information to view on the popularity of a name over a period  
Press the buttons below to see the data in the corresponding layout

Year of interest(start)	<input type="text" value="2333"/>	Year of interest(end)	<input type="text" value="2001"/>
Name of interest	<input type="text" value="asd"/>	Gender	<input type="text" value="M"/>

Bar chart Line chart Table Summary

Console

input check:  
Please input year within range

## Task 3 safelock

The button will lock if the input is invalid

This check for the period(start>end)

console will tell user the input is invalid

Team T-02: Popular Names

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

Input the following information to view on the popularity of a name over a period  
Press the buttons below to see the data in the corresponding layout

Year of interest(start) 2002 Year of interest(end) 2001  
Name of interest asd Gender M

Bar chart Line chart Table Summary

Console

input check:  
2002>2001 error:start year is greater than end year

## Task 3 unlock

once the input format is correct

the button will unlock

but name may not exist in the data

the button will still unlock

Team T-02: Popular Names

Task Zero

Reporting 1

Reporting 2

Reporting 3

Application 1

Application 2

Application 3

Input the following information to view on the popularity of a name over a period  
Press the buttons below to see the data in the corresponding layout

Year of interest(start)

2000

Year of interest(end)

2001

Name of interest

asd

Gender

M

Bar chart

Line chart

Table

Summary

Console

input check done  
click on the buttons to get report

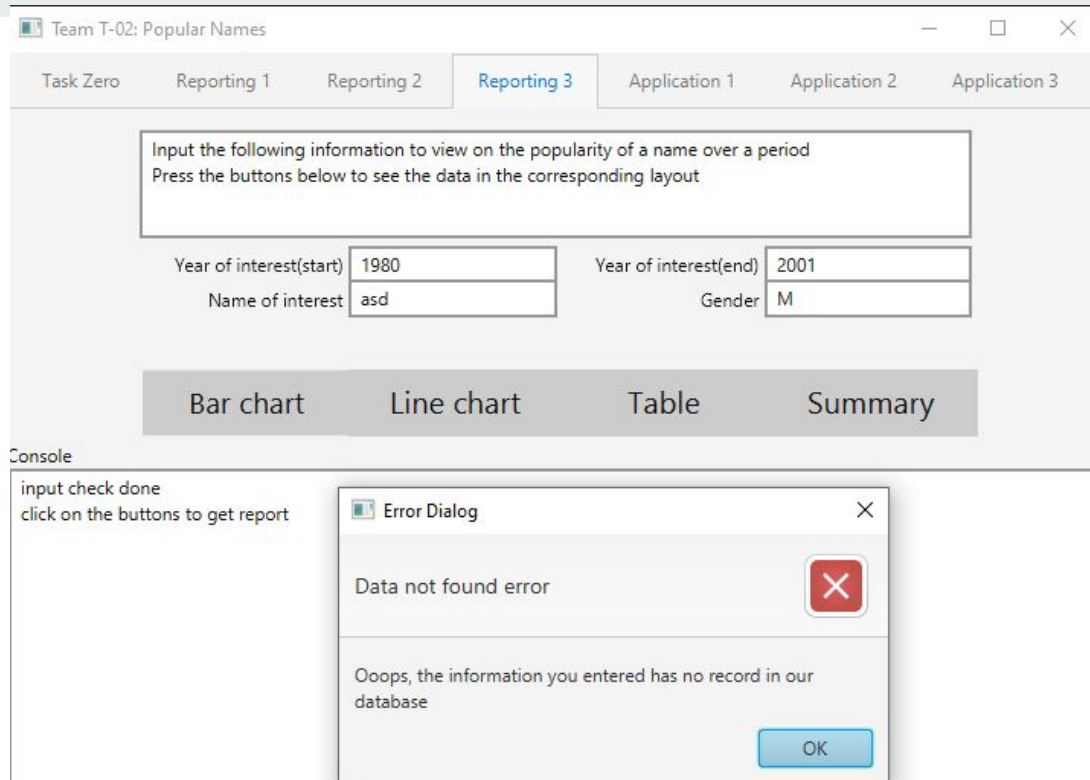
## Task 3 data not found

After the buttons is unlocked

if the user clicked on any of the 4 buttons

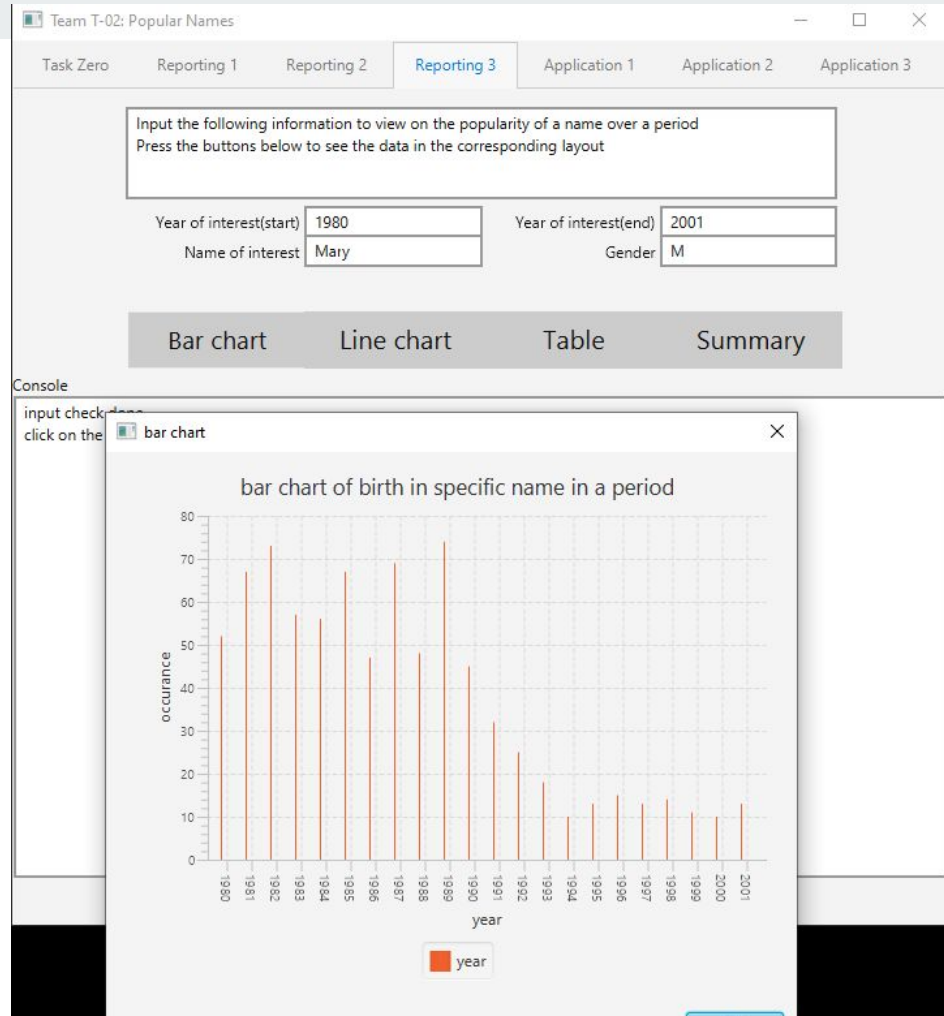
this popup will be shown

if the name does not exist or not found



## Task3 show bar chart

after all the input checking  
by clicking the bar chart button  
a popup will be shown  
containing the bar chart with the data of interest



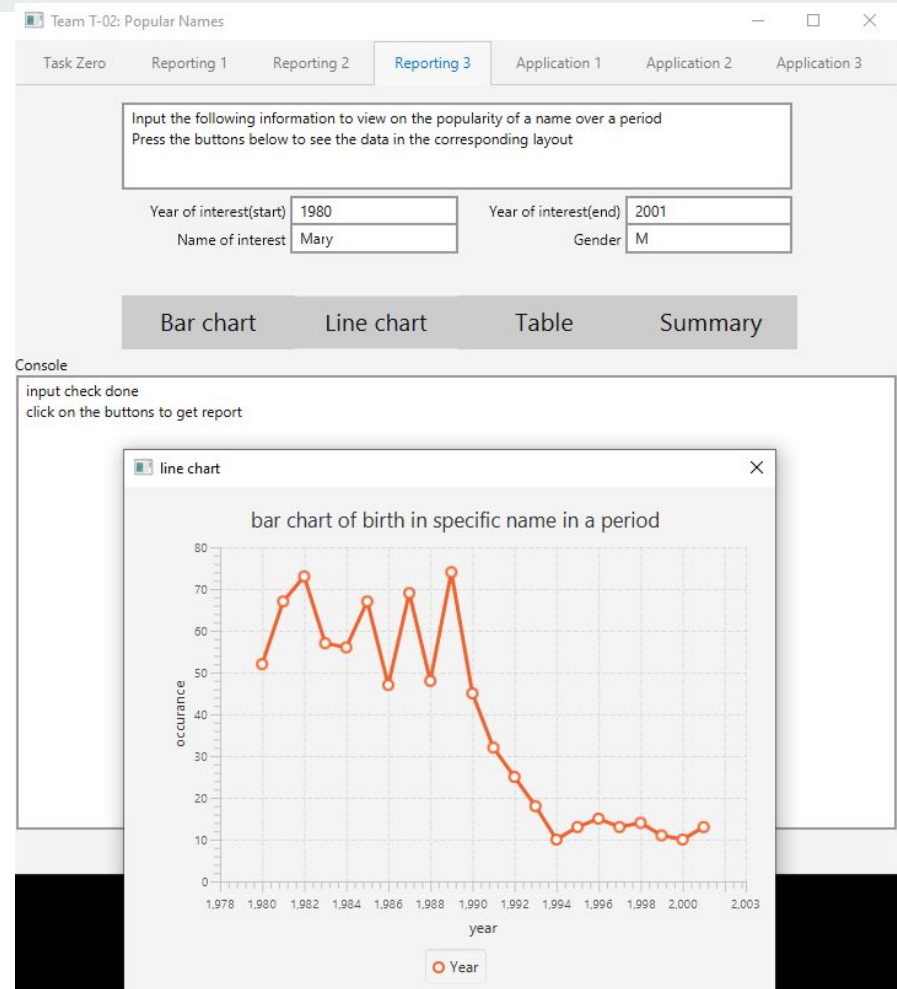
## Task3 show line chart

after all the input checking

by clicking the linechart button

a popup will be shown

containing the line chart with the data of interest





## Task3 show table

after all the input checking

by clicking the table button

a popup will be shown

containing the table with the data of interest

Team T-02: Popular Names

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

Input the following information to view on the popularity of a name over a period  
Press the buttons below to see the data in the corresponding layout

Year of interest(start) 1980 Year of interest(end) 2001  
Name of interest Mary Gender M

Bar chart Line chart **Table** Summary

Console

input check done  
click on the buttons to get report

**Table**

Data table

Year	Rank	Occurrences	Percentage
1980	1304	52	0.0029150008%
1981	1118	67	0.003741121%
1982	1068	73	0.004024322%
1983	1211	57	0.0031812794%
1984	1231	56	0.0031045056%
1985	1142	67	0.0036274411%
1986	1467	47	0.00255412%
1987	1157	69	0.003698419%
1988	1540	48	0.00250967%
1989	1263	74	0.003700002%
1990	1770	45	0.0021924023%
1991	2273	32	0.0015845797%
1992	2790	25	0.0012522616%
1993	3591	18	9.181814E-4%
1994	5742	10	5.178243E-4%
1995	4700	13	6.831922E-4%

OK

## Task3 show summary

after all the input checking  
by clicking the summary button  
a popup will be shown  
containing the summary

The screenshot shows a web application titled "Team T-02: Popular Names". It features a navigation bar with tabs: "Task Zero", "Reporting 1", "Reporting 2", "Reporting 3" (active), "Application 1", "Application 2", and "Application 3".

Below the navigation bar, there is a form with the following instructions: "Input the following information to view on the popularity of a name over a period. Press the buttons below to see the data in the corresponding layout".

The form contains four input fields:

- Year of interest(start): 1980
- Year of interest(end): 2001
- Name of interest: Mary
- Gender: M

Below the form, there are four buttons: "Bar chart", "Line chart", "Table", and "Summary".

Below the buttons, there is a "Console" section with the following text:

```
input check done
click on the buttons to get report
```

A "Summary" popup window is displayed, showing the following information:

```
summary:
Name of interest : Mary
The most popular year for this name is 2000
It was ranked 6646 out of 12111
It ocured 10 times
This was accounted for 5.0957856E-4% of the total names
```

The popup window has an "OK" button.

# TASK 4 showcase

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# Task 4 User interface

Team 1-02: Popular Names

Task Zero

Reporting 1

Reporting 2

Reporting 3

Application 1

Application 2

Application 3

Task #4: Recommendation on Names for Newborn Babies (application)

Develop and implement an online service using empirical data to help make informed decisions on naming their newborn babies.

Choose algorithm

T4X1

T4X2

Please input dad's info

input name here

input year of birth(yyyy)

Please input mom's info

Input name here

input your year of birth(yyyy)

Progress

get result

onsole



## Task 4 : Name recommendation

- T4X1 we need the input of mom year of born and dad year of born.
- T4X2 we need the input of both mom and dad's name, year.
- need to select the algorithm and input the corresponding data
- if there are empty input and the input are required, the button will be disabled.
- there are progress bar and progress shown on the console

## Task 4 T4X1

- T4X1 selected
- progress 33%
- Console show
- "Please enter Mom year"
- "Please enter Dad year"

Choose algorithm	Please input dad's info	Please input mom's info
<div>T4X1</div>	<input type="text" value="input name here"/>	<input type="text" value="Input name here"/>
<div>T4X2</div>	<input type="text" value="input year of birth(yyyy)"/>	<input type="text" value="input your year of birth(yyyy)"/>

Progress

get result

Console

#####You are Now selecting Algorithm T4X1 #####  
The Current Process : 33%  
Please enter Mom's Year of Born  
Please enter Dad's Year of Born

## Task 4 T4X1

- T4X1 selected
- progress 66%
- Console show
- "Please enter Mom year"
- Since we enter dad info already

Choose algorithm	Please input dad's info	Please input mom's info
<div>T4X1</div>	<div>input name here</div>	<div>Input name here</div>
<div>T4X2</div>	<div>2010</div>	<div>input your year of birth(yyyy)</div>
<div>Progress</div>	<div>get result</div>	

ole

#####You are Now selecting Algorithm T4X1 #####

: Current Process : 66%

ase enter Mom's Year of Born

## Task 4 T4X1

Done! Click result button! shown

- button get result is enable
- progress bar 100%
- message shown on console
- Iphone unlock sound display

Choose algorithm	Please input dad's info	Please input mom's info
T4X1	input name here	Input name here
T4X2	2010	2019

Progress

get result

Console

Done! Click result button !



## Task 4 T4X1 OUTPUT

- invalid input of year(1880 - 2019)
- show windows of recommended name
- Male : most popular name on dad's year
- Female : most popular name on mom year
- SOUND effect display when it pop out
- icon of baby's face is shown
- click ok to exit ~





## Task 4 T4X2 introduction

- Input we need to have “mom year of born”, “dad year of born”, “dad name”, “mom name”
- We randomly extract the english character from dad name or mom name
- Total number extracted will be equal or less than min length of mom name and dad name
- We take average between mom year of born and dad year of born
- We take random seed as sum of mom’s name length and dad’s name length
- We go to the dataset of the year we calculated, get a list of name
- the total number of the name list is determined by the min length of parent’s name
- So Top N of names will be extracted from the dataset, and calculate the score



## Task T4X2 : Score calculation

- Since we randomly extract the english characters of parent's name.
- even if user enter name with lower case letter in first character, it automatically change
- We put the english character into hash map
- We extract the a list of name from the year of average of (MomYOB)(DadYOB)
- We compare the extracted English character from parent in hashmap and name list.
- once there are matched character between name list and hash, point ++;
- Finally, we use point / length of child name, calculate the score
- Once all of them are zero or the same, we will rank based on the popularity of the name

## Task 4: T4X2 algorithm example

- we enter Paul and Cindy.
- 2019, 2018
- name list will be selected in  $(2019 + 2018)/2 = 2018.5 = 2018$

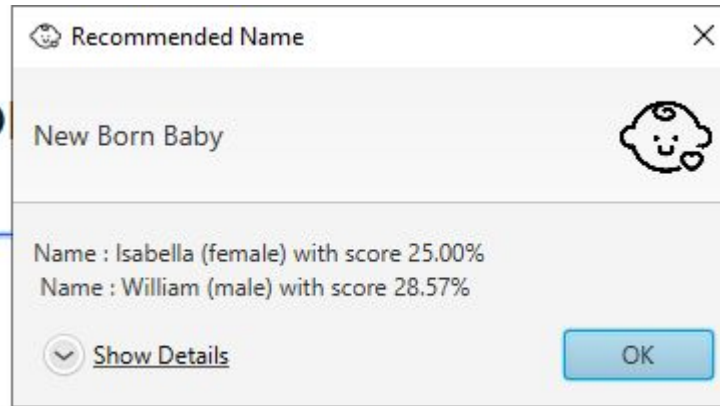
Choose algorithm	Please input dad's info	Please input mom's info
T4X1	<input type="text" value="Paul"/>	<input type="text" value="Kelvin"/>
T4X2	<input type="text" value="2019"/>	<input type="text" value="2018"/>

Progress

get result

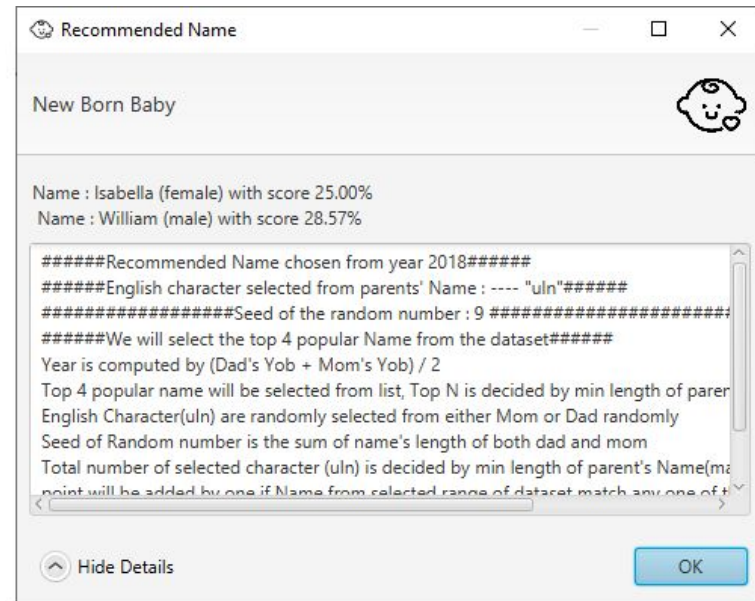
## Task 4: T4X2 algorithm example

- We selected name Isabella (female)
- We selected name William (male)
- Sound effect displays
- icon shown
- Show Details options ~ [explain]



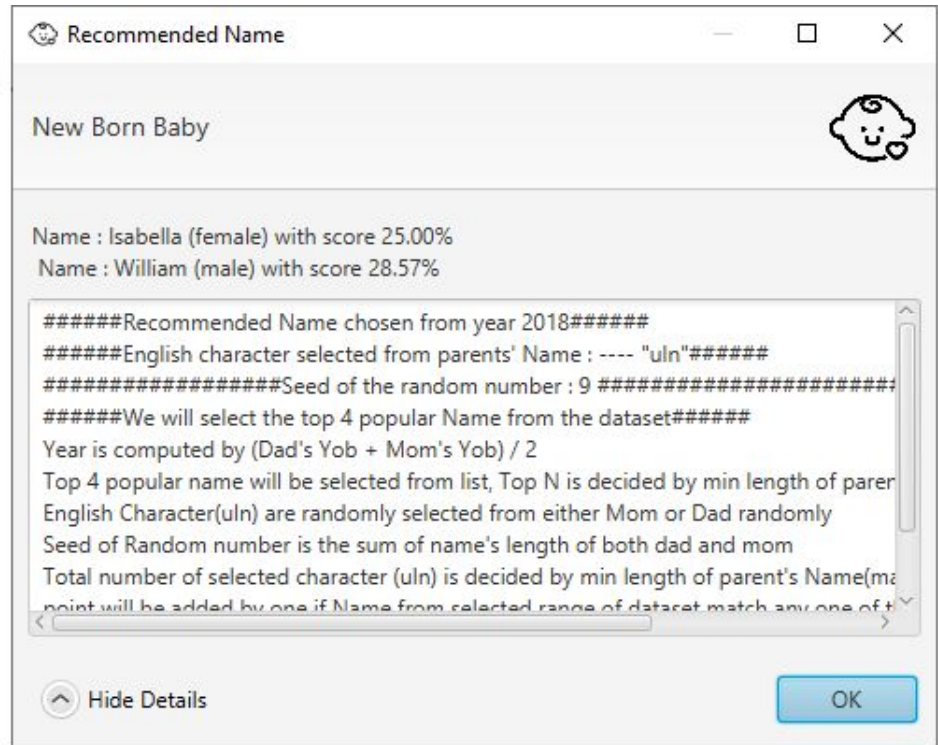
## Task 4 : T4X2 Show details

- expand the details
- show the details of year and characters
- number of popular name shown
- Seed of Random number
- “uln” is extracted from parent’s name
- 2018 is the year
- Top 4(min of parent’s name Cindy =4)



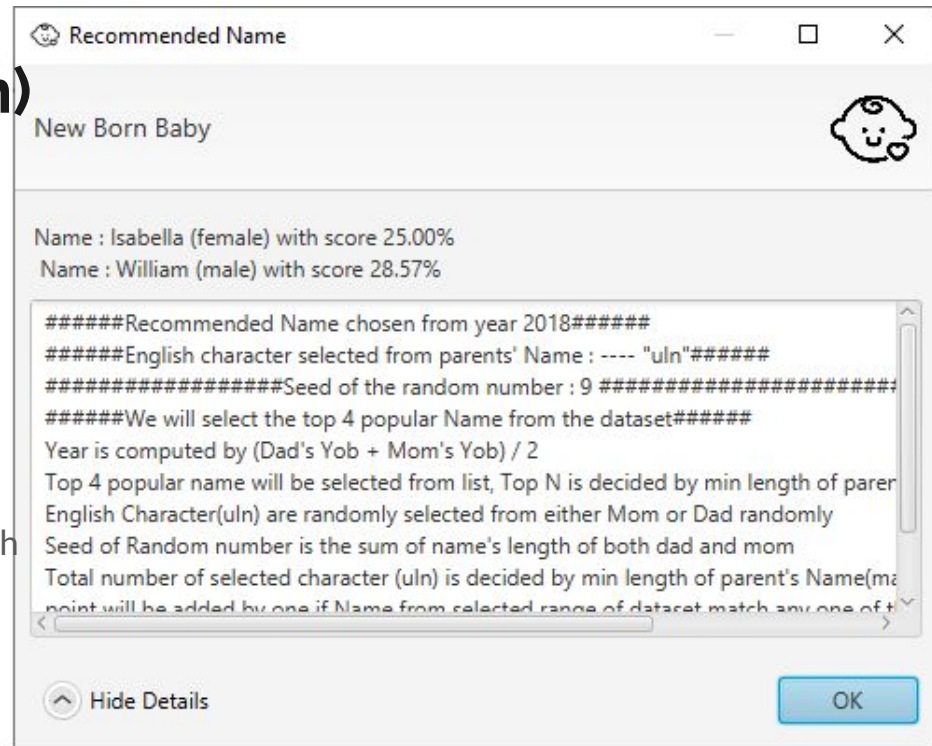
## Task 4 T4x2 explain (Isabella)

- "u" from Paul
- "l" from Paul
- "n" from Cindy
- "isabella" length = 8
- matched character = 2 (l)
- score =  $2/8 * 100 = 25\%$



## Task 4 T4x2 explain (William)

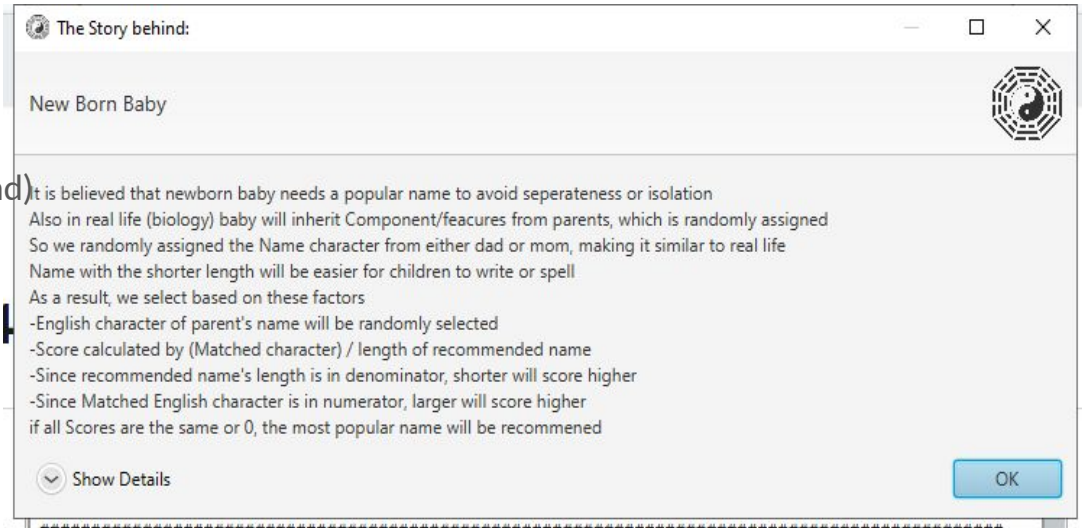
- “u” from Paul
- “l” from Paul
- “n” from Cindy
- “isabella” length = 7
- matched character = 2 (l)
- $\text{score} = 2/7 * 100 = 28.57\%$
- you can see same matching but shorter length
- get higher score





## Task 4 T4x2

- After clicking OK before
- we show the second pop
- there is a “gossip array” “八卦” icon
- sound effect display (baby smile sound)
- Explanation will shown on this
- Click show details show a web page.



## Task 4 T4X2

- there are hyper link
- tables show a list of recommended name
- right hand side corner [TOP] clickable
- once click it it will go to top of website.
- [TOP] will push you to the top of website

one story benina:

New Born Baby

It is believed that newborn baby needs a popular name to avoid seperateness or isolation  
Also in real life (biology) baby will inherit Component/feacures from parents, which is randomly assigned  
So we randomly assigned the Name character from either dad or mom, making it similar to real life  
Name with the shorter length will be easier for children to write or spell  
As a result, we select based on these factors  
-English character of parent's name will be randomly selected  
-Score calculated by (Matched character) / length of recommended name  
-Since recommended name's length is in denominator, shorter will score higher  
-Since Matched English character is in numerator, larger will score higher  
if all Scores are the same or 0, the most popular name will be recommended

The reference website

[WhY we recommended popular name??!](#)

[WhY we want SHORTER name??\(video\)](#)

[WhY we want Child name contain Parent name's Character??](#)

Recommendation list

Name	Gender	Occurence	Score
Isabella	Female	14517	25.000000%
Olivia	Female	17993	16.666668%
Emma	Female	18757	0.000000%
Ava	Female	14975	0.000000%
Sophia	Female	13972	0.000000%

Hide Details

OK

Top

## Task 4 T4X2

- name
- gender
- occurrence
- score
- rank decending
- Top clickable

Name	Gender	Occurence	Score
Isabella	Female	14517	25.000000%
Olivia	Female	17993	16.666668%
Emma	Female	18757	0.000000%
Ava	Female	14975	0.000000%
Sophia	Female	13972	0.000000%
William	Male	14590	28.571430%
Oliver	Male	13461	16.666668%
Liam	Male	19915	0.000000%
Noah	Male	18350	0.000000%
James	Male	13589	0.000000%

Top



## Task 4 T4X2

- Links are clickable
- you can go to this web
- embedded in the windows
- reference explanation

[WhY we recommended popular name??!](#)

[WhY we want SHORTER name??\(video\)](#)

[WhY we want Child name contain Parent name's Character??](#)


Recommendation list

## Task 4 T4X2

- Click the first hyper link
- Article embedded

As a result, we select based on these factors

- English character of parent's name will be randomly selected
- Score calculated by (Matched character) / length of recommended name
- Since recommended name's length is in denominator, shorter will score higher
- Since Matched English character is in numerator, larger will score higher
- If all Scores are the same or 0, the most popular name will be recommended

 AdChoices

**Bria John, The Huffington Post Canada**

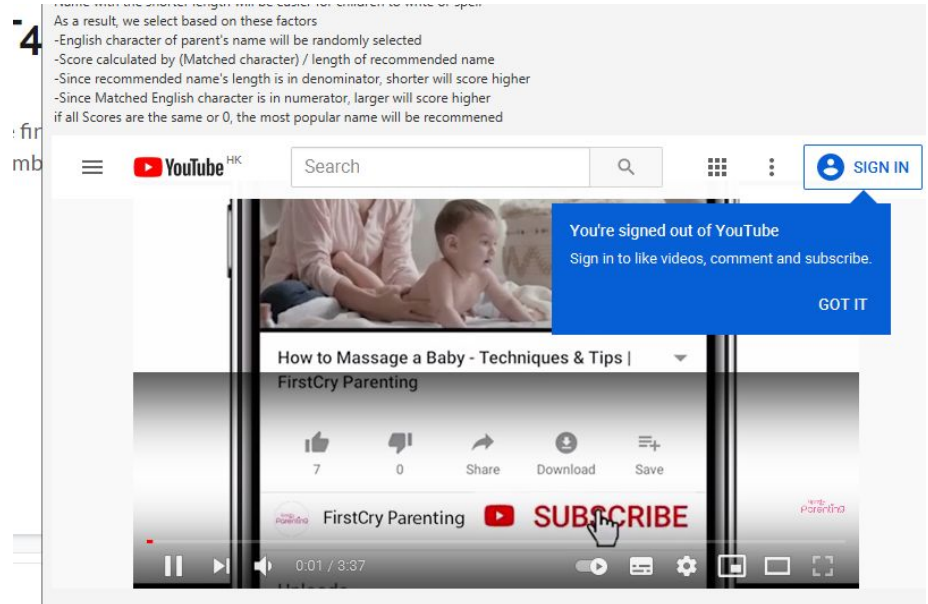
03/29/2016 11:30am EDT | Updated March 30, 2016

What do you do when you want to name your child Olivia but it's the second most popular name in Canada for girls? You name your child Aliviyah instead. Or try Leeam, Liaam, Liahm or Liamm instead of Liam, the number one boys name. Anything unique to set your child apart. But a study suggests this trend could have a negative effect on kids.

Generally, baby name trends follow big cultural happenings. The

## Task 4 T4X2

- hyperlink to video
- show reason why we select shorter name



## Task4 T4X2

So we randomly assigned the Name character from either dad or mom, making it similar to real life  
Name with the shorter length will be easier for children to write or spell  
As a result, we select based on these factors

- English character of parent's name will be randomly selected
- Score calculated by (Matched character) / length of recommended name
- Since recommended name's length is in denominator, shorter will score higher
- Since Matched English character is in numerator, larger will score higher

if all Scores are the same or 0, the most popular name will be recommended



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立即選購

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And, even though it is often passed down among the men in the family, the women can start this tradition, too.

You may also wish to consider traditions that involve:

- Giving a tribute to deceased relatives
- Honoring your heritage and ancestry
- Maintaining a brand of initials (the same initials for everyone in the immediate family)

[Hide Details](#) [OK](#)

## Task 4 T4X2

- ranked name will shown on console

T4X1	<input type="text" value="Paul"/>	<input type="text" value="Cindy"/>
T4X2	<input type="text" value="2019"/>	<input type="text" value="2018"/>

Progress

Console


```
The Recommended Name is : Isabella (female) with score 25.000000%
The Recommended Name is : Olivia (female) with score 16.666668%
The Recommended Name is : Emma (female) with score 0.000000%
The Recommended Name is : Ava (female) with score 0.000000%
The Recommended Name is : Sophia (female) with score 0.000000%
#####
The Recommended Name is : William (male) with score 28.571430%
The Recommended Name is : Oliver (male) with score 16.666668%
The Recommended Name is : Liam (male) with score 0.000000%
The Recommended Name is : Noah (male) with score 0.000000%
The Recommended Name is : James (male) with score 0.000000%
```



## Task 4 T4X2


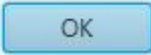
- What if the score zero or the same as the other score ????
- We give recommendation according to the popularity
- Performs like T4X1, but year is different.  $(\text{MomYOB} + \text{DadYOB}) / 2$

T4X1	<input type="text" value="p"/>	<input type="text" value="p"/>
T4X2	<input type="text" value="2019"/>	<input type="text" value="2018"/>

New Born Baby 

Name : Emma (female) with score 0.00%

Name : Liam (male) with score 0.00%

 Show Details 

Name	Gender	Occurence	Score
Emma	Female	18757	0.000000%
Liam	Male	19915	0.000000%

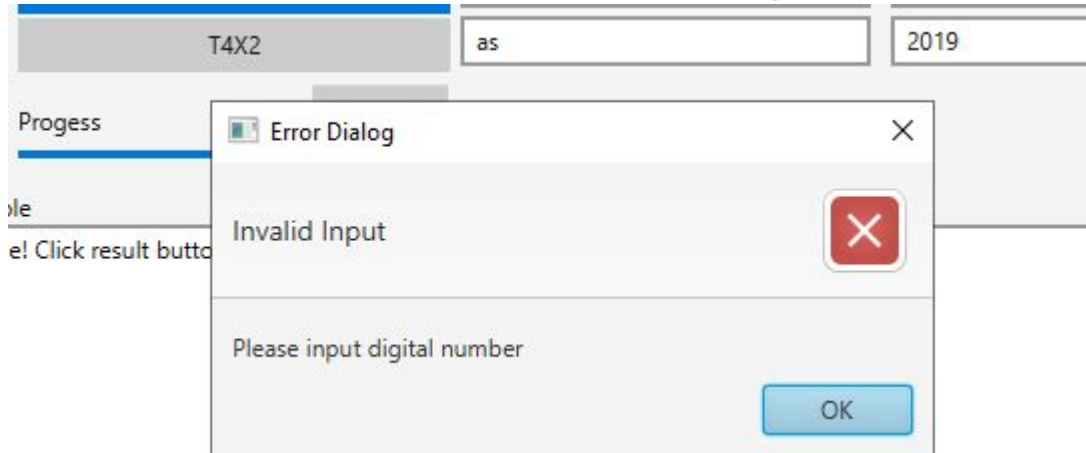


## Task 4 T4X2 RULE EXPALIN

- it makes sense that if we input in random massive english character which is not name we will give score more likely to zero, and make recommendation according to year of born as information.
- $\text{Score} = \text{point} / \text{name length}$ , so the recommended length shorter is an advantage
- point = matched hash map english character from parent's feature, match more higher
- Same score, will base on popularity to do ranking, make popular one an advantage
- Random selection of parent's name component using seed (mom name length + dad name length)
- always give the same result even it is random.
- Randomness is because baby features actually are quite random
- get name component because we want baby has inherit something from parent's name
- get average of the year is because we want gender equality, both parent has right decide name
- Shorter and popular , we want baby makes friend with other easily by easy name and not weird name

## Task 4 invalid input

- we do not accept non numerical value in the year of born
- it shows error dialog with default sound effect with icon cross.
- Click ok to exit, means user has to read the message.



## Task 4 name input

- no restriction length
- But it will take long time if you enter long name
- if you randomly input a long English string it is ok but it is recommended to enter name

### Hubert Blaine Wolfeschlegelsteinhausenbergerdorff Sr.

The longest **personal name** is 747 characters long, and belongs to **Hubert Blaine Wolfeschlegelsteinhausenbergerdorff Sr.** (b. 4 August 1914, Germany) who passed away on 24 October 1997, in Philidelphia, Pennsylvania USA, as verified on 1 January 2021. 2021年1月1日

<https://www.guinnessworldrecords.com/world-records>

[Longest personal name | Guinness World Records](#)

Choose algorithm

T4X1

T4X2

Please input dad's info

skfnskjnfkjsndfjkjsndkfjnsdkjfnkjsdnfl

2019

Please input mom's info

skdfjnsdkjfnksdnfjkjsdnfksdjfnksdjfnk

2018

Progress

get result

console

The Recommended Name is : Addison (female) with score 57.142860%  
The Recommended Name is : Anna (female) with score 50.000000%  
The Recommended Name is : Eden (female) with score 50.000000%  
The Recommended Name is : London (female) with score 50.000000%  
The Recommended Name is : Londyn (female) with score 50.000000%  
The Recommended Name is : Madison (female) with score 42.857143%  
The Recommended Name is : Genesis (female) with score 42.857143%  
The Recommended Name is : Kennedy (female) with score 42.857143%  
The Recommended Name is : Adalynn (female) with score 42.857143%  
The Recommended Name is : Quinn (female) with score 40.000000%  
The Recommended Name is : Hannah (female) with score 33.333336%

Recommended Name

New Born Baby

Name : Addison (female) with score 57.14%  
Name : Hudson (male) with score 50.00%

Show Details

OK

## Task4 T4X2 limitation

- Longer name more likely to get 100%
- but we will exclude child name same as the parent name
- long name take more time
- the example show 700 character

Choose algorithm	Please input dad's info	Please input mom's info
T4X1	Wolfeschlegelsteinhausenbergerdor	Wolfeschlegelsteinhausenber
T4X2	2019	2018

Recommended Name

New Born Baby

Name : Willow (female) with score 100.00%  
Name : William (male) with score 100.00%

#####Seed of the random number : 1194 #####  
#####We will select the top 597 popular Name from the dataset#####  
Year is computed by (Dad's Yob + Mom's Yob) / 2  
Top 597 popular name will be selected from list, Top N is decided by min length of par  
English Character(abcdefghijklmnopqrstuvwxyz) are randomly selected from either Mom  
Seed of Random number is the sum of name's length of both dad and mom  
Total number of selected character (abcdefghijklmnopqrstuvwxyz) is decided by min len  
point will be added by one if Name from selected range of dataset match any one of t  
Score is calculated using formular : matched element( abcdefghijklmnoprstuvwWz ) / l

## Task 4 invalid input zero digit

The screenshot shows a web application interface with the following elements:

- Choose algorithm:** Two buttons, "T4X1" (grey) and "T4X2" (blue).
- Please input dad's info:** Two input fields. The first contains "wfe" and the second contains "02019".
- Please input mom's info:** Two input fields. The first contains "wef" and the second contains "02018".
- Progress:** A progress bar with a blue segment.
- get result:** A button.
- Error Dialog:** A modal window titled "Error Dialog" with a red "X" icon. It contains the text "Invalid Input" and "Please input year 1880 - 2019". An "OK" button is at the bottom right.

Below the "Progress" bar, there is a text label "sole" and a message "one! Click result button !".

## Task 4 out of range

Choose algorithm

Please input dad's info

Please input mom's info

T4X1

hi

man

T4X2

2020

2018

Progress

get result

! Click result button

Error Dialog

Invalid Input

Please input year 1880 - 2019

OK

## Task 4 overflow number prevention

- There are possible risk of error , if enter large number length

The screenshot displays a web application interface with the following components:

- Choose algorithm:** Two buttons, "T4X1" and "T4X2". "T4X2" is highlighted in blue.
- Please input dad's info:** Two input fields. The first contains "hi". The second contains a long number "5165165156161616".
- Please input mom's info:** Two input fields. The first contains "man". The second contains a long number "156165651651".
- Progress:** A progress bar and a "get result" button.
- Error Dialog:** A modal window titled "Error Dialog" with a red "X" icon. It displays the message "Invalid Input" and "Please input year 1880 - 2019". An "OK" button is at the bottom right.

Below the main form, there is a console area with the text "console" and "one! Click result bu".



## Task 4 invalid input Non English character(Name)

Develop and implement an online service using empirical data to help make informed decisions on naming their newborn babies.

Choose algorithm	Please input dad's info	Please input mom's info
T4X1	*****	*****
T4X2	02019	02018

Progress

Console  
Done! Click result button

增文字

Error Dialog

Invalid Input

Please input English Character

OK



## Task 4 Conclusion

- Parents always worry about naming of their child
- the system give the quality recommendation with clear explanation
- if you have any question feel free to email [pwliuab@connect.ust.hk](mailto:pwliuab@connect.ust.hk)
- I will be happy to answer.

# TASK 5 showcase

---

# TASK 6 showcase

---

# task6 safeguard

## Progress 0/7

The get result button will be locked  
if the input is empty

a progress bar and console output will hint  
the user what is the progress so far

Input checking is not done in this stage

Team T-02: Popular Names

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

Task #6: Prediction on Scores for Compatible Pairs (application)

Wanna know if you are in sync with your partner?  
Wanna know your upcoming target is your best match?  
Input the information below to get our system calculate the score for you!

I want a younger soulmate I want a older soulmate

Please input your info Please input your target's info

input your name here Input target's name here

Choose algorithm T6X2 T6X1 ☐ I am male ☐ I am female ☐ Target is male ☐ Target is female

Progress get result input your year of birth(yyyy)

Console

Progress: 0.00%

# task6 safeguard

## Progress 1/7

The get result button will be locked  
if the input is empty

a progress bar and console output will hint  
the user what is the progress so far

Input checking is not done in this stage

Team T-02: Popular Names

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

Task #6: Prediction on Scores for Compatible Pairs (application)

Wanna know if you are in sync with your partner?  
Wanna know your upcoming target is your best match?  
Input the information below to get our system calculate the score for you!

I want a younger soulmate I want a older soulmate

Please input your info Please input your target's info

Choose algorithm T6X2 T6X1

Progress get result

input your name here Input target's name here

☐ I am male ☐ I am female ☐ Target is male ☐ Target is female

input your year of birth(yyyy)

Console

Progress: 14.29%

# task6 safeguard

## Progress 2/7

The get result button will be locked  
if the input is empty

a progress bar and console output will hint  
the user what is the progress so far

Input checking is not done in this stage

Team T-02: Popular Names

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

Task #6: Prediction on Scores for Compatible Pairs (application)

Wanna know if you are in sync with your partner?  
Wanna know your upcoming target is your best match?  
Input the information below to get our system calculate the score for you!

I want a younger soulmate I want a older soulmate

Please input your info Please input your target's info

Choose algorithm T6X2 T6X1

Progress get result

input your name here Input target's name here

☐ I am male ☐ I am female ☐ Target is male ☐ Target is female

input your year of birth(yyyy)

Console

Progress: 28.57%

# task6 safeguard

## Progress 3/7

The get result button will be locked  
if the input is empty

a progress bar and console output will hint  
the user what is the progress so far

Input checking is not done in this stage

Team T-02: Popular Names

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

Task #6: Prediction on Scores for Compatible Pairs (application)

Wanna know if you are in sync with your partner?  
Wanna know your upcoming target is your best match?  
Input the information below to get our system calculate the score for you!

I want a younger soulmate I want a older soulmate

Choose algorithm T6X2 T6X1

Progress

Please input your info

input your name here

Please input your target's info

Input target's name here

☐ I am male ☒ I am female ☐ Target is male ☐ Target is female

input your year of birth(yyyy)

Console

Progress: 42.86%



# task6 safeguard

## Progress 4/7

The get result button will be locked  
if the input is empty

a progress bar and console output will hint  
the user what is the progress so far

Input checking is not done in this stage

Team T-02: Popular Names

Task ZeroReporting 1Reporting 2Reporting 3Application 1Application 2Application 3

Task #6: Prediction on Scores for Compatible Pairs (application)

Wanna know if you are in sync with your partner?  
Wanna know your upcoming target is your best match?  
Input the information below to get our system calculate the score for you!

I want a younger soulmate

I want a older soulmate

Please input your info

input your name here

Please input your target's info

Input target's name here

Choose algorithm

T6X2T6X1

☐ I am male

☒ I am female

☒ Target is male

☐ Target is female

Progress

get result

input your year of birth(yyyy)

Console

Progress: 57.14%

# task6 safeguard

## Progress 5/7

The get result button will be locked if the input is empty

a progress bar and console output will hint the user what is the progress so far

Input checking is not done in this stage

Team T-02: Popular Names

Task ZeroReporting 1Reporting 2Reporting 3Application 1Application 2Application 3

Task #6: Prediction on Scores for Compatible Pairs (application)

Wanna know if you are in sync with your partner?  
Wanna know your upcoming target is your best match?  
Input the information below to get our system calculate the score for you!

I want a younger soulmate

I want a older soulmate

Choose algorithm

T6X2T6X1

Progress

get result

Please input your info

aaaaaaaaaaaaaaaaaaaaaaaaaaaaa

Please input your target's info

input target's name here

☐ I am male☒ I am female

☒ Target is male☐ Target is female

input your year of birth(yyyy)

Console

Progress: 71.43%

# task6 safeguard

## Progress 6/7

The get result button will be locked if the input is empty

a progress bar and console output will hint the user what is the progress so far

Input checking is not done in this stage

Team T-02: Popular Names

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

Task #6: Prediction on Scores for Compatible Pairs (application)

Wanna know if you are in sync with your partner?  
Wanna know your upcoming target is your best match?  
Input the information below to get our system calculate the score for you!

I want a younger soulmate I want a older soulmate

Please input your info Please input your target's info

Choose algorithm T6X2 T6X1

☐ I am male ☒ I am female ☒ Target is male ☐ Target is female

Progress

Console

Progress: 85.71%

Once all the data has been filled

The get result button will be unlocked

and the user can progress

Team T-02: Popular Names

Task Zero

Reporting 1

Reporting 2

Reporting 3

Application 1

Application 2

Application 3

Task #6: Prediction on Scores for Compatible Pairs (application)

Wanna know if you are in sync with your partner?

Wanna know your upcoming target is your best match?

Input the information below to get our system calculate the score for you!

I want a younger soulmate

I want a older soulmate

Please input your info

Please input your target's info

Choose algorithm

T6X2

T6X1

Progress

get result

☐ I am male

☒ I am female

☒ Target is male

☐ Target is female

Console

Input complete.

Click on the "get result" button to view the score

after the user clicked on the get result  
button

after the user clicked on the get result  
button

Team T-02: Popular Names

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

Task #6: Prediction on Scores for Compatible Pairs (application)

Wanna know if you are in sync with your partner?  
Wanna know your upcoming target is your best match?  
Input the information below to get our system calculate the score for you!

I want a younger soulmate  
I want a older soulmate

Choose algorithm T6X2 T6X1

Progress get result

Please input your info  
aaaaaaaaaaaaaaaaaaaaaaaaaaaaaa

Please input your target's info  
aaaaaaaaaaaaaaaaaaaaaaaaaaaaaa.

☐ I am male ☒ I am female

☒ Target is male ☐ Target is female

22222222222222222222222222222222

Console

Input complete.  
Click on the "get result" but...

Error Dialog

Data not found error

Message:  
Please input a valid digit

OK

# task6 input validation

after the user clicked on the get result button

a alert will appear and signal the user to input year within range

Team T-02: Popular Names

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

Task #6: Prediction on Scores for Compatible Pairs (application)

Wanna know if you are in sync with your partner?  
Wanna know your upcoming target is your best match?  
Input the information below to get our system calculate the score for you!

I want a younger soulmate   Please input your info   Please input your target's info

I want a older soulmate   aaaaaaaaaaaaaaaaaaaaaaaaaaaaaa   aaaaaaaaaaaaaaaaaaaaaaaaaaaaaa.

Choose algorithm   T6X2   **T6X1**   ☐ I am male   ☒ I am female   ☒ Target is male   ☐ Target is female

Progress   get result   0

Console

Input complete.  
Click on the "get result" button to view the score

Error Dialog

Data not found error

Message:  
Please input a year within range(1880-2019)

OK

# task6 input validation

if any of the name does not exist in the record or is not valid

a alert will appear and signal the user to change the name

Team T-02: Popular Names

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

Task #6: Prediction on Scores for Compatible Pairs (application)

Wanna know if you are in sync with your partner?  
Wanna know your upcoming target is your best match?  
Input the information below to get our system calculate the score for you!

I want a younger soulmate I want a older soulmate

Please input your info Please input your target's info

Choose algorithm T6X2 T6X1

Progress get result

2000

☐ I am male ☒ I am female ☒ Target is male ☐ Target is female

Console

Input complete.  
Click on the "get result" button to view

Error Dialog

Data not found error

Oops, the information you entered has no record in our database

OK

# task6 output T6X1

If the selected algorithm is T6X1

the result will show 100% if the name is in  
equal length; 0% otherwise

result will be shown on alert  
with explanation append after that

Team T-02: Popular Names

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

Task #6: Prediction on Scores for Compatible Pairs (application)

Wanna know if you are in sync with your partner?  
Wanna know your upcoming target is your best match?  
Input the information below to get our system calculate the score for you!

I want a younger soulmate I want a older soulmate

Please input your info Please input your target's info

Choose algorithm T6X2 T6X1

I am male I am female Target is male Target is female

Progress get result 2000

Console

Input complete.  
Click on the "get result" button to view the score

Result

Capability score:0.0%

Explanation:  
name is not in equal length

Hide Details OK



# task6 output T6X1

If the selected algorithm is T6X1

the result will show 100% if the name is in  
equal length; 0% otherwise

result will be shown on alert  
with explanation append after that

Team T-02: Popular Names

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

Task #6: Prediction on Scores for Compatible Pairs (application)

Wanna know if you are in sync with your partner?  
Wanna know your upcoming target is your best match?  
Input the information below to get our system calculate the score for you!

I want a younger soulmate I want a older soulmate

Please input your info Please input your target's info

Choose algorithm T6X2 T6X1

I am male I am female Target is male Target is female

Progress 2000 get result

Console

Input complete.  
Click on the "get result" button.

Result

Capability score:100.0%

Explanation:  
name is in equal length

Hide Details OK

# task6 output T6X2

If the selected algorithm is T6X2

the score will be deducted if:  
-length is not the same  
-rarity is not the same

result will be shown on alert  
with explanation append after that

Team T-02: Popular Names

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

Task #6: Prediction on Scores for Compatible Pairs (application)

Wanna know if you are in sync with your partner?  
Wanna know your upcoming target is your best match?  
Input the information below to get our system calculate the score for you!

I want a younger soulmate I want an older soulmate

Please input your info Please input your target's info

Choose algorithm T6X2 T6X1

☒ I am male ☐ I am female ☐ Target is male ☒ Target is female

Progress get result

2000

Console

Input complete.  
Click on the "get result" button to view the score

Result

Capability score: 52.909462%

Explanation:  
Name with similar rarity may have higher chance to get along with each other

Hide Details OK

# task6 output T6X2

If the selected algorithm is T6X2

the score will be deducted if:

- length is not the same
- rarity is not the same

result will be shown on alert  
with explanation append after that

Team T-02: Popular Names

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

Task #6: Prediction on Scores for Compatible Pairs (application)

Wanna know if you are in sync with your partner?  
Wanna know your upcoming target is your best match?  
Input the information below to get our system calculate the score for you!

I want a younger soulmate  
I want a older soulmate

Please input your info  
Mary

Please input your target's info  
Ken

Choose algorithm  
T6X2 T6X1

☒ I am male ☐ I am female

☒ Target is male ☐ Target is female

Progress  
get result

2000

Console

Input complete.  
Click on the "get result" button to view the score

Result

Capability score:56.38817%

Explanation:  
Name in the same length might have a higher chance of being soulmate  
Name with similar rarity may have higher chance to get along with each other

Hide Details OK

# task6 output T6X2

If the selected algorithm is T6X2

the score will be deducted if:

- length is not the same
- rarity is not the same

result will be shown on alert  
with explanation append after that

Team T-02: Popular Names

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

**Task #6: Prediction on Scores for Compatible Pairs (application)**

Wanna know if you are in sync with your partner?  
Wanna know your upcoming target is your best match?  
Input the information below to get our system calculate the score for you!

I want a younger soulmate I want a older soulmate

Please input your info Please input your target's info

Choose algorithm **T6X2** T6X1

☒ I am male ☐ I am female ☒ Target is male ☐ Target is female

Progress

Console

Input complete.  
Click on the "get result" button to view the score

**Result**

Capability score: 100.0%

Explanation:  
You may entered the same name twice for the same gender  
or just so happened you two are prefect match!

Hide Details OK

# COVERAGE REPORT

---

# TESTCASE SUMMARY

---

# JAVADOC

location : `./build/docs/javadoc/index.html`

\*private method not shown on javadoc will placed here

---

```

312+ private Button Task1PieButton;// for task 1
314+ private Button Task1TableButton;// for task 1
316+ private Button Task1Summarybutton;// for task 1
318+ private Button Task1BarButton;// for task 1
319
320 // generate Summary
321+ /**
322  * This function generate a bar chart showing the most n popular name in a new
323  * scene it will return alert if input is invalid
324  *
325  * @throws IOException
326  */
329+ void Generate_BarChart() throws IOException {}
450
451+ /**
452  * This function generate a Pie chart showing the most n popular name in a new
453  * scene it will return alert if input is invalid
454  */
456+ void Generate_PieChart() {}
578
579
580+ /**
581  * This function generate a Table showing the most n popular name in a new scene
582  * it will return alert if input is invalid
583  */
585+ void Generate_Table() {}
759
760+ /**
761  * This function generate a summary showing the most n popular name on the
762  * console it will return alert if input is invalid
763  */
765+ void Generate_Summary() {}
839
841+ * the inner class for table to use in task1
846+ public static class Person {}
912

```

## Task1



Task2

```

935
936- /**
937  * This function is to safeguard the input for task3 all the button in task 3 is
938  * lock until the data is input fits the format there will be text showing on
939  * the console showing user what has gone wrong / (e.g. end-year is smaller than
940  * start-year)
941  */
943+ void tsk3in() {}
1034
1035- /**
1036  * This function will generate a bar chart showing the popularity of a name over
1037  * a period the result will be shown in a popup alert it will return alert if
1038  * input name is not found
1039  */
1041+ void tsk3brcht() { // generate and popup barchart
1095
1096- /**
1097  * This function will generate a line chart showing the popularity of a name
1098  * over a period the result will be shown in a popup alert it will return alert
1099  * if input is invalid
1100  */
1102+ void tsk3lncht() {}
1156
1157- /**
1158  * This function will generate a summary showing the popularity of a name over a
1159  * period the result will be shown in a popup alert it will return alert if
1160  * input name is not found
1161  */
1163+ void tsk3summary() {}
1207
1209+ * this is a inner class to store the info for table to use
1214+ public static class tsk3entry {}
1272
1273- /**
1274  * This function will generate a table showing the popularity of a name over a
1275  * period the result will be shown in a popup alert it will return alert if
1276  * input name is not found
1277  */
1280+ void tsk3table() {}
1347

```

## Task3

```

1374
1375 private boolean Play = true;
1376
1377 /**
1378  * this function will generate the names for babies error alert will be raised
1379  * if the input is invalid
1380  *
1381  * if algorithm is T4X1 the name prediction will be shown on a information alarm
1382  *
1383  * if algorithm is T4X2 the name with the highest match rate will be shown on an
1384  * information alert an extra alert will popup showing the story behind with a
1385  * table and hyperlink and a webpage will be adhere to the story showing the
1386  * reference with a table / showing the rest of the prediction
1387  */
1389 void task_four_getresult() {}
1797
1798 /**
1799  *
1800  * This is the safeguard function for task 4 every action in the input for task4
1801  * will call this function the button to get result will be lock until the input
1802  * field is filled it will only check if the input has filled so even if the
1803  * data is invalid the button will unlock
1804  *
1805  * there is also a progress bar to indicate user the completeness the progress
1806  * status in text will also be shown on the console area allowing the user to
1807  * know what input is missing
1808  */
1810 void tsk4check() {}
1888

```

## Task4

```

1918
1919
1920- /**
1921  * This is the function used to generate names for compatible pairs Some input
1922  * checking shall be done here
1923  *
1924  */
1926+ void task_five_getresult() {
1929
1930
1931- /**
1932  *
1933  * This is the safeguard function for task 5 every action in the input will call
1934  * this function
1935  */
1937+ void tsk5check() {
1940 //
1941

```

Task5

```

1987 private ToggleButton T6X1;
1988
1990 private ToggleButton T6X2;
1991
1992 /**
1993  * This function will calculate and show the score of capability of pairs it
1994  * will start off by doing a input validation and the function will return if
1995  * input is invalid and an alert will prompt the user the input has error
1996  *
1997  * If the data is valid, the score will be calculated and show on an
1998  * alert(type:information) If the algorithm is T6X2, the explanation will adhere
1999  * to the bottom to the alert
2000  *
2001  */
2003 void task_six_getresult() {
2127
2128 /**
2129  * This is the safeguard function for task 6 every action in the input for task6
2130  * will call this function the button to get result will be lock until the input
2131  * field is filled it will only check if the input has filled so even if the
2132  * data is invalid the button will unlock
2133  *
2134  * there is also a progress bar to indicate user the completeness the progress
2135  * status will also be shown on the console area
2136  */
2138 void tsk6check() {
2187
2188 }
2189

```

## Task6

# EXTRA:COMMIT LOG

---

# Commit log

Commits on Apr 30, 2021

Merge pull request #24 from kalung2002/paul\_feature1 ...



pwliuab committed 2 days ago

Verified



add bagua picture and make story for the algorithm



pwliuab committed 2 days ago



Merge pull request #23 from kalung2002/paul\_feature1 ...



pwliuab committed 2 days ago

Verified



Task1test,adding sleep(100) prevent error



pwliuab committed 2 days ago



add the algorithm 2~T4x2



pwliuab committed 2 days ago



# Commit Log

master

Commits on May 2, 2021

Update README.md



pwliuab committed 6 hours ago

Verified



89ed9d9



Merge pull request #30 from kalung2002/kluiaf\_feature\_dev



kalung2002 committed 17 hours ago

Verified



2e6e9fa



fix typo



kalung2002 committed 17 hours ago



ffab8e3



write all javadocs for existed method even if it is private



kalung2002 committed 17 hours ago



d2e92bb



fixed some textboxes



kalung2002 committed 17 hours ago



29dab88



Merge pull request #29 from kalung2002/kluiaf\_feature\_dev



kalung2002 committed 21 hours ago

Verified



de4f277



write javadoc for analyzernames



kalung2002 committed 21 hours ago



2f99baa



Commits on May 1, 2021