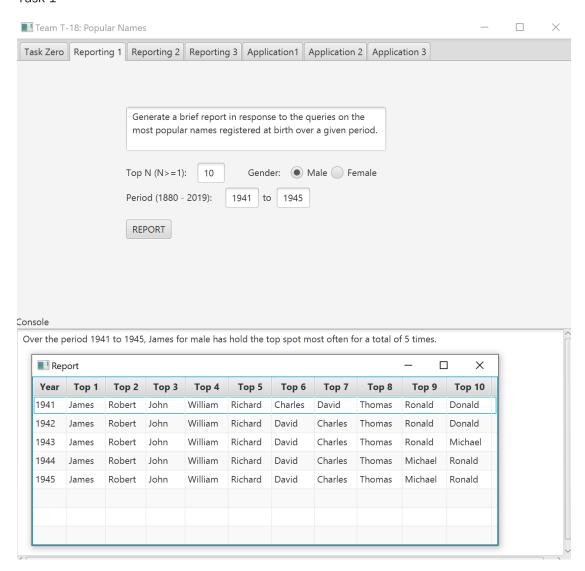
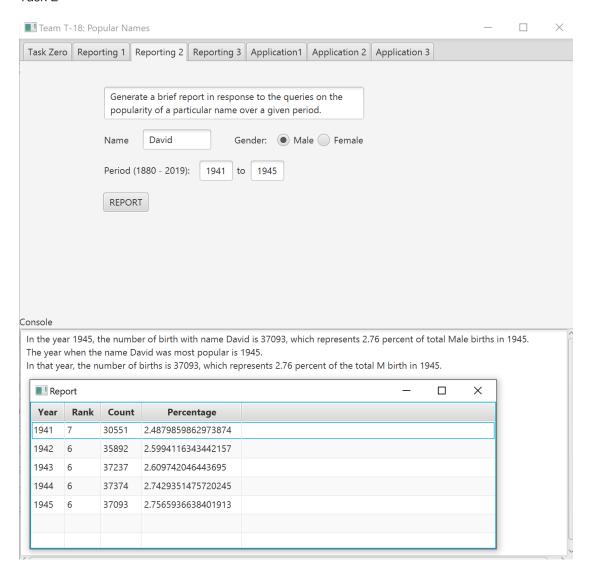
COMP 3111 Group Project - Team 18

1. Screenshots of all tasks

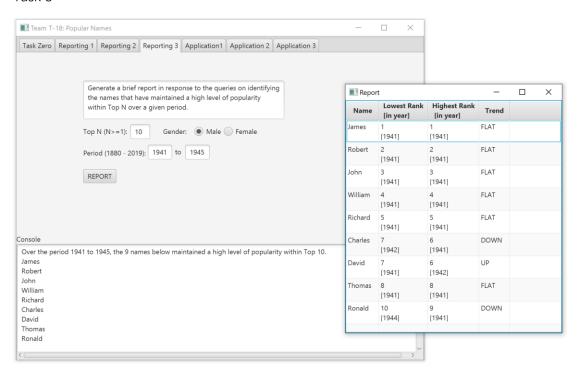
Task 1



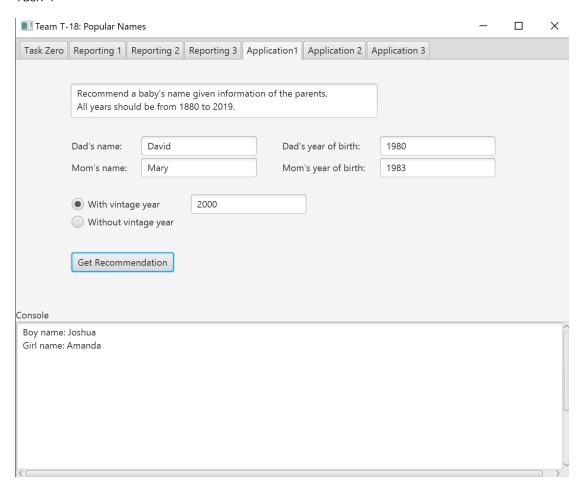
Task 2



Task 3



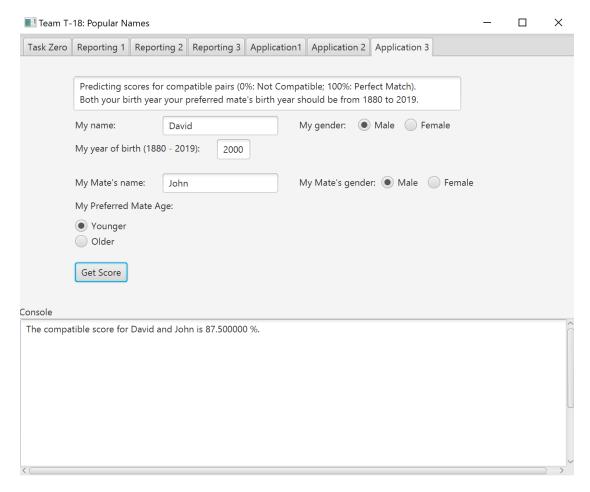
Task 4



Task 5

Team T-18: Popular Names								_	×
Task Zero	Reporting 1	Reporting 2	Reporting 3	Application1	Application 2	Application 3			
	What is your	name?			David				
	Which year were you born?								
	What is your gender?					Female			
	Which gender of your mate do you prefer?				Male Male	Female			
	Do you prefer younger or older mate?					Older			
Get Recommendation									
Console									
Recommen	ded mate nam	ne: Grace							
									~
1									 \

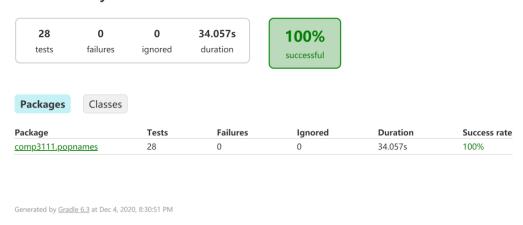
Task 6



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

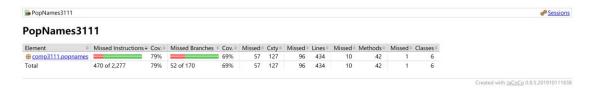
[In test file on Repo]

Test Summary



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

[In jacocoHTML file on Repo]



4. Documentation on the implemented tasks using JavaDoc

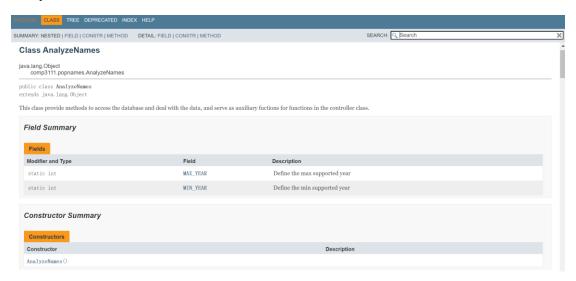
[In javadoc file on Repo]

Part of the documentation is shown here.



The screenshots of two classes' documentation is shown here as an illustration.

AnalyzeNames Class



All Methods Static Methods Concrete Methods									
Modifier and Type	Method	Description							
static float	<pre>compatibleScore(java.lang.String iName, java.lang.String iGender, int iYOB, java.lang.String iNameMate, java.lang.String iGenderMate, int oYOB)</pre>	The function is for calculating score in Task 6							
static org. apache, commons.csv, CSVParser	getFileParser(int year)	The function reads the data for a given year							
static int[]	<pre>getHighAndLowRank(int yearFrom, int yearTo, java.lang.String name, java.lang.String gender)</pre>	The function is for get high And low rank during a perio of time in Task 3 $$							
static java.util.Map.Entry <java.lang.string, java.lang.Integer></java.lang.string, 	getMaxNameCount(int yearFrom, int yearTo, java.lang.String gender)	The function is for get the compute the name with most top spots during a period of time in Task $\ensuremath{\mathtt{I}}$							
static int	getMaxRank(int year, java.lang.String gender)	The function is for get the largest rank for a gender give a year							
static int	getMaxRankInPeriod(int yearFrom, int yearTo, java.lang.String gender)	The function is for get the largest rank for a gender during a period of time							
static int	<pre>getMostPopularYear(int yearFrom, int yearTo, java.lang.String name, java.lang.String gender)</pre>	The function is for get the most popular year during a period of time in Task 2 $$							
static java lang String	getName(int year, int rank, java.lang.String gender)	The function is for get the name of a given rank for a given gender in a given year							
static int	getNameCount(int year, java.lang.String name, java.lang.String gender)	The function is for get the number of babies using a certain name in a certain year for Task 2							
static double	getNamePercentage(int year, java.lang.String name, java.lang.String gender)	The function is to get the name percentage in a certain year in Task 2							

static int	getRank(int year, java.lang.String name, java.lang.String gender)	The function is for get the name of a given rank for a given gender in a given year
static java.lang.String	getSummary(int year)	The function give a summary report for a given year
static javafx.util.Pair <java.lang.string, java.lang.String></java.lang.string, 	${\bf recommendBabyName} \ ({\it java.lang.String} \ \ {\it dadName, int} \ \ {\it dadYOB, java.lang.String} \ \ {\it momName, int} \ \ {\it momYOB, int} \ \ {\it vintageYear})$	The function is for recommended BabyName in Task 4
static java.lang.String	recommendedMateName(java.lang.String yourName, int YOB, java.lang.String yourGender, java.lang.String mateGender, java.lang.String preference)	The function is for recommended MateName in Task 5 $$

Methods inherited from class java.lang.Object

 ${\tt clone,\ equals,\ finalize,\ getClass,\ hashCode,\ notify,\ notifyAll,\ toString,\ wait,\ wait}$

Field Details

MIN_YEAR

public static final int MIN_YEAR Define the min supported year

See Also: Constant Field Values

MAX_YEAR

public static final int MAX_YEAR Define the max supported year

Constructor Details

AnalyzeNames

public AnalyzeNames()

Method Details

 $\verb|public| static| org. apache. commons. csv. CSVParser| getFileParser(int | year)$

The function reads the data for a given year

Parameters: year - The year of interset.

public static java.lang.String getSummary(int year)

The function give a summary report for a given year

year - The year of interset.

```
getMaxRank

public static int getMaxRank(int year, java. lang. String gender)

The function is for get the largest rank for a gender given a year

Parameters:
year-The year of interset.
gender - The interseted gender of the name.

getMaxRankInPeriod

public static int getMaxRankInPeriod(int yearFrom, int yearTo, java. lang. String gender)

The function is for get the largest rank for a gender during a period of time

Parameters:
yearFrom - The starting year of the period.
gender - The interseted gender of the name.

getNameCount

public static int getNameCount(int year, java. lang. String gender)

The function is for get the number of habias using a centain name in a centain year for Task 2
```

···(omitted several functions since it's only for illustration purpose)

```
public static java.lang.String recomenderMateName(java.lang.String yourName, int YOB, java.lang.String yourGender, java.lang.String mateGender, java.lang.String mateGender, java.lang.String preference)

The function is for recommended MateName in Task 5

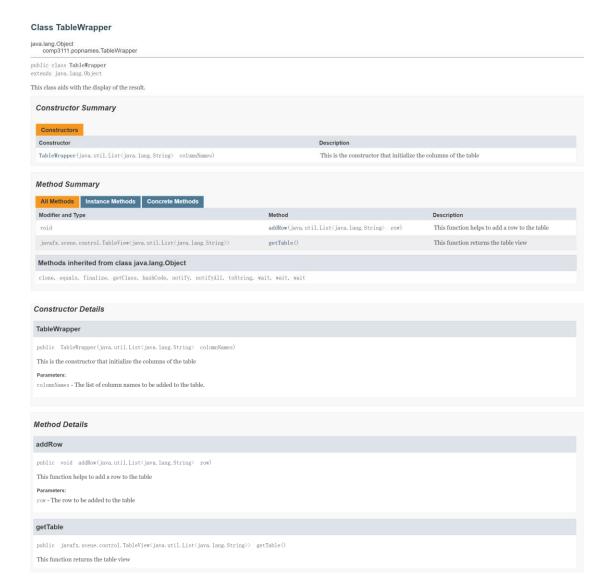
Parameters:
yourName - Name of the person seeking advices
yourGender - Gender of the person seeking advices
yourGender - Gender of the soulmate to be matched
preference - Preference on having a younger or older soulmate

CompatibleScore
public static float compatibleScore(java.lang.String iName, java.lang.String iGender, int iYOB, java.lang.String iGender, java.lang.String iGender, java.lang.String iGenderMate, int oYOB)

The function is for calculating score in Task 6

Parameters:
IName - Name of the person seeking advices
iYOB - Year of Birth of the person seeking advices
iYOB - Year of Birth of the person seeking advices
iYOB - Year of Birth of the person seeking advices
```

TableWrapper Class



5. Supplementary Notes

In task 6, we define the score as 1-|(oRank - oRankMate)|/max(oRank,oRankMate), which is in range (0,1].