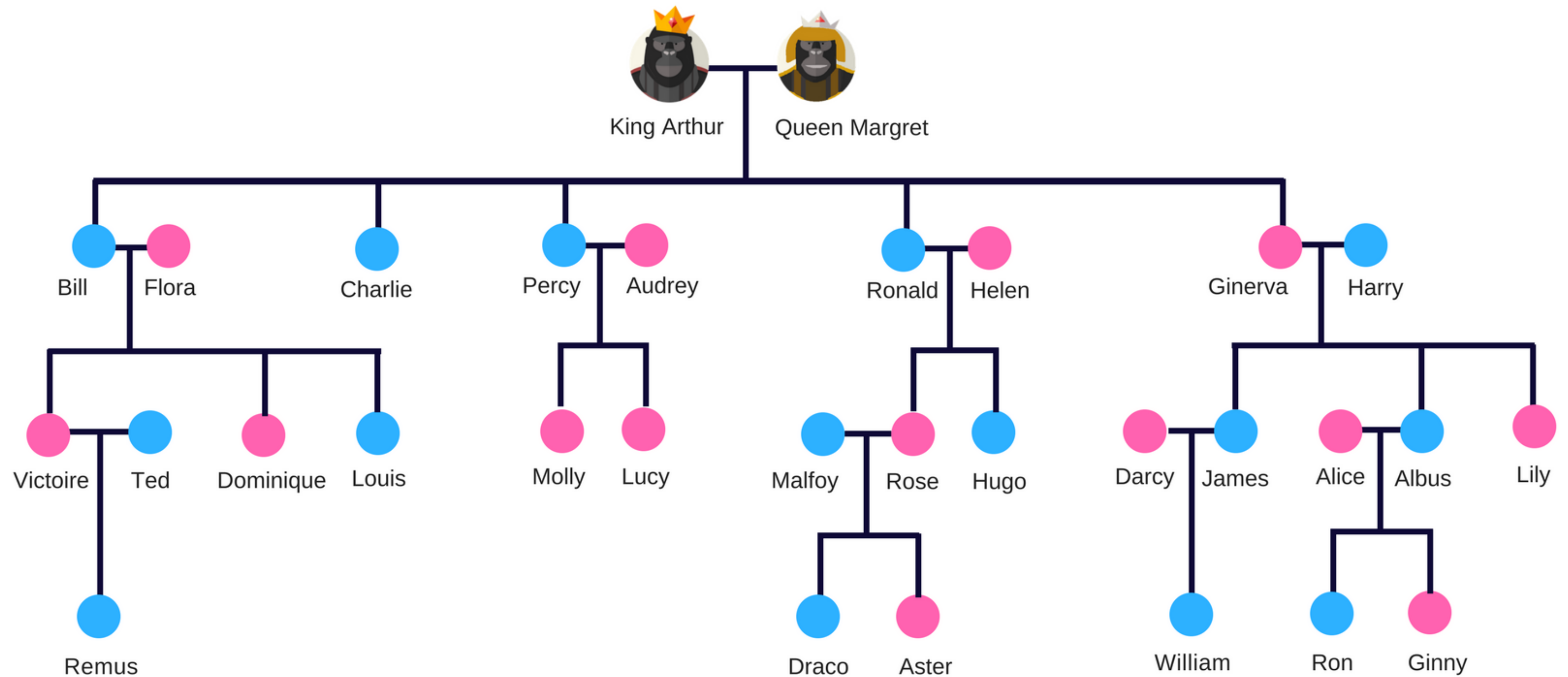geektrust.in

Job Adventures. For Geeks.

Getting started

1. Getting the output right is important, but clean code is more important. You should **absolutely** <u>read this post</u> on what we look for in your code, and how to get started with the coding challenge.

2. If you are writing code in Java, you have to use either maven or gradle with the respective build files. Please download them from the links below. Edit the build file to set your '{your.qualified.name.of.main.class}' and add your dependencies if any. Ensure the generated executable is named 'geektrust.jar'.

    *   **pom.xml**

    *   **build.gradle**

3. Add a readme with how to get your code working, and how to test your code.

keep in mind

1. We expect a command line app. So no web apps will be considered for evaluation. You don't need data stores either.

2. Usage of non-essential 3rd party libraries will affect your evaluation.

3. If you have questions on the coding challenges, your evaluation, or on companies, you can ping us on our <u>Slack channel</u> or mail us at <u>devs@geektrust.in</u> saying "Add to slack".

4. Your solution will be downloaded & seen by company. Hence we advise you to provide a solution that will work on any system without any code changes/manual setup.

Family Tree

The Arthur Family Tree

Male   Female

Problem Context

Our story is set in the planet of Lengaburu......in the distant, distant galaxy of Tara B. And our protagonists are King Arthur, Queen Margret & their family.

King Arthur is the emperor of Lengaburu and has been ruling the planet for the last 350 years (they have long lives in Lengaburu, you see!). Let's write some code to get to know the family.

This coding problem is for backend and fullstack developers and tests object oriented fundamentals.

Meet The Family

Write code to model out the King Arthur family tree so that:

- Given a 'name' and a 'relationship', you should output the people corresponding to the relationship in the order in which they were added to the family tree.

- You should be able to add a child to any family in the tree through the mother.

Simple, right? But remember.. our evaluation is based not only on getting the right output, but on how you've written your code.

Sample Input/Output

Input needs to be read from a text file, and output should be printed to console. **Your program should take the location to the test file as parameter.**

Input format to add a child:

ADD_CHILD "Mother's-Name" "Child's-Name" "Gender"

Input format to find the people belonging to a relationship:

GET_RELATIONSHIP "Name" "Relationship"

Output format on finding the relationship:

"Name 1" "Name 2"… "Name N"

Example test file:

ADD_CHILD Flora Minerva Female
GET_RELATIONSHIP Remus Maternal-Aunt
GET_RELATIONSHIP Minerva Siblings

Output on finding the relationship:

CHILD_ADDED
Dominique Minerva
Victorie Dominique Louis

More sample input output scenarios.

You need to stick to the Sample input output format as shown. This is very important as we are automating the correctness of the solution to give you a faster evaluation. You can find some sample input output files here.

⇄ Sample 1

```
ADD_CHILD   Luna  Lola Female
GET_RELATIONSHIP Luna Maternal-Aunt
```

⇄ Sample 1 Output:

```
PERSON_NOT_FOUND
PERSON_NOT_FOUND
```

Luna does not exist in the family tree

⇄ Sample 2

```
ADD_CHILD   Ted  Bella Female
GET_RELATIONSHIP Remus Siblings
```

⇄ Sample 2 Output:

```
CHILD_ADDITION_FAILED
NONE
```

Ted is male, hence child addition failed

⇄ Sample 3

```
GET_RELATIONSHIP Lily Sister-In-Law
```

⇄ Sample 3 Output:

```
Darcy Alice
```

Relationships To Handle

There are many relations that could exist but at a minimum, your code needs to handle these relationships

Relationships	Paternal-Uncle	Maternal-Uncle	Paternal-Aunt	Maternal-Aunt	Sister-In-Law	Brother-In-Law	Son	Daughter	Siblings
Definition	Father's brothers	Mother's brothers	Father's sisters	Mother's sisters	Spouse's sisters, Wives of siblings	Spouse's brothers, Husbands of siblings			

check list - submitting code

1. Please compress the file before upload. We accept .zip, .rar, .gz and .gzip

2. Name of the file should be MeetTheFamily.zip'.

3. Please upload only source files and do not include any libraries or executables or node_modules folder.