Genealogic tree: Manual

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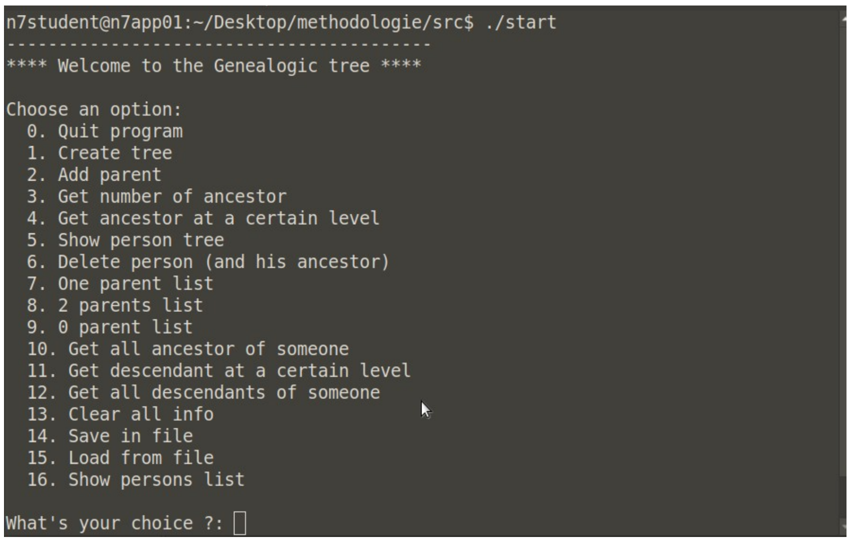
I/ Launch the program

> Open a terminal
> Go to the methodologie folder
> *$cd src/* –Folder containing the project
> *$gnatmake -gnatawa -I./ -gnata -g start.adb* –To compile the project
> *$./start*



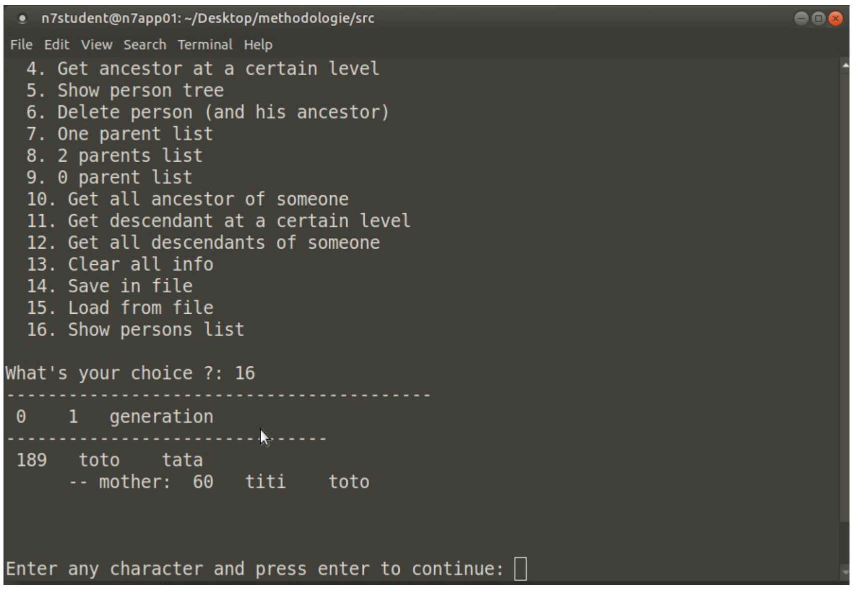
```
n7student@n7app01:~/Desktop/methodologie/src$ ./start
-----------------------------------------
**** Welcome to the Genealogic tree ****

Choose an option:
  0. Quit program
  1. Create tree
  2. Add parent
  3. Get number of ancestor
  4. Get ancestor at a certain level
  5. Show person tree
  6. Delete person (and his ancestor)
  7. One parent list
  8. 2 parents list
  9. 0 parent list
  10. Get all ancestor of someone
  11. Get descendant at a certain level
  12. Get all descendants of someone
  13. Clear all info
  14. Save in file
  15. Load from file
  16. Show persons list

What's your choice ?:
```

Menu

Now you can play with the program by providing an option:
- You first need to create a tree (option 1) and then display it (option 16).
- After each action, you are asked to enter a random character to proceed.



n7student@n7app01: ~/Desktop/methodologie/src
File Edit View Search Terminal Help

```
  4. Get ancestor at a certain level
  5. Show person tree
  6. Delete person (and his ancestor)
  7. One parent list
  8. 2 parents list
  9. 0 parent list
  10. Get all ancestor of someone
  11. Get descendant at a certain level
  12. Get all descendants of someone
  13. Clear all info
  14. Save in file
  15. Load from file
  16. Show persons list

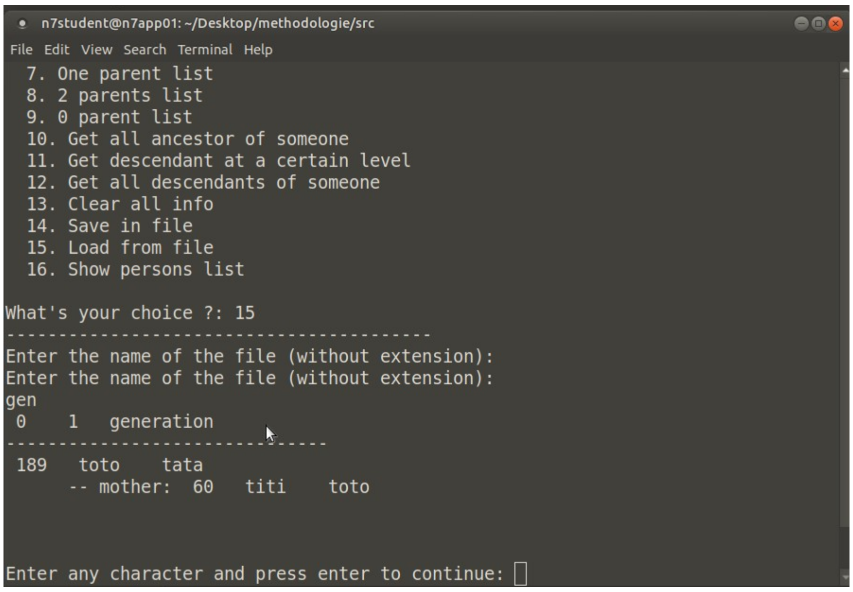
What's your choice ?: 16
-----------------------------------------
 0    1   generation
-------------------------------
 189   toto    tata
     -- mother:  60   titi    toto



Enter any character and press enter to continue:
```

Option 16- Showing trees

- After having played with the program, you can save your tree by choosing option 14. Call it *gen* for instance.
- Then you can stop the program (ctrl+C or option 0) and launch it again.
- Try to load the data by using option 15. Type *gen* and tadaa… Your tree is loaded in memory!


n7student@n7app01: ~/Desktop/methodologie/src
File Edit View Search Terminal Help

```
  7. One parent list
  8. 2 parents list
  9. 0 parent list
  10. Get all ancestor of someone
  11. Get descendant at a certain level
  12. Get all descendants of someone
  13. Clear all info
  14. Save in file
  15. Load from file
  16. Show persons list

What's your choice ?: 15
-----------------------------------------
Enter the name of the file (without extension):
Enter the name of the file (without extension):
gen
 0    1   generation
-------------------------------
 189   toto    tata
      -- mother:  60   titi    toto



Enter any character and press enter to continue:
```

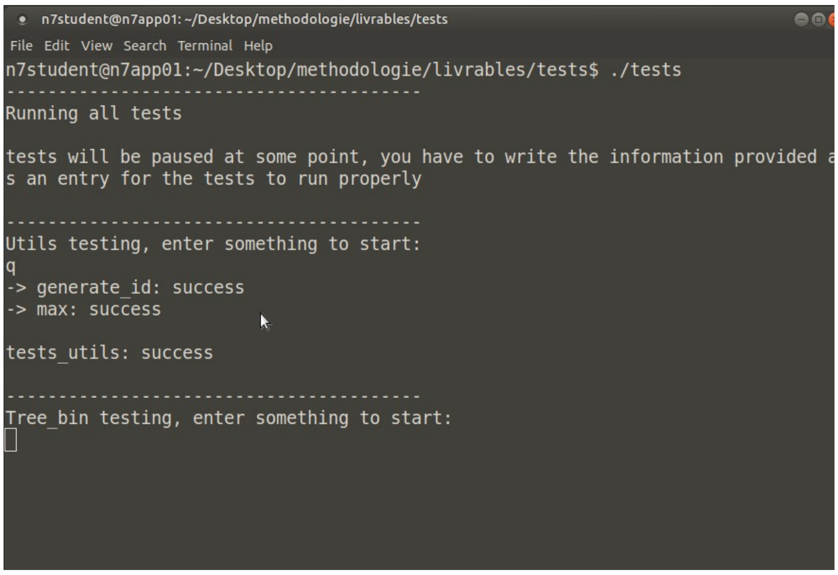
Option 15- Loading

II/ Test the program

> Open a terminal
> Go to the methodologie folder
> *$cd livrables/tests/* –Folder containing tests
> *$gnatmake -gnatawa -I../../src/ -gnata -g tests.adb* –To compile the tests, it need sources files
> *$./tests*

All tests will be run one after another. The tester is important. Indeed, you will be asked to enter some input and evaluate the result (see the *tests* section of the report).
So please read carefully the instructions when they appear.

Tests look like this:


n7student@n7app01: ~/Desktop/methodologie/livrables/tests
File Edit View Search Terminal Help

```
n7student@n7app01:~/Desktop/methodologie/livrables/tests$ ./tests
----------------------------------------
Running all tests

tests will be paused at some point, you have to write the information provided a
s an entry for the tests to run properly

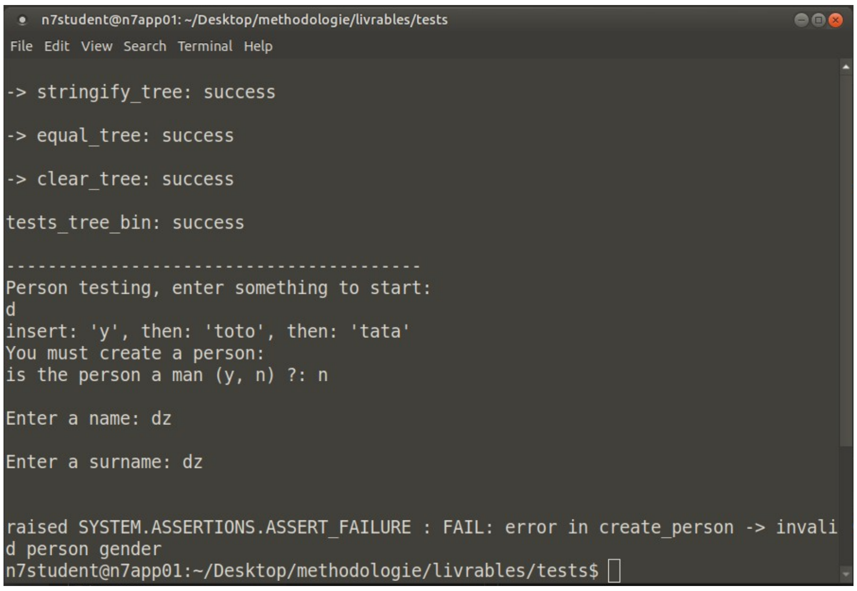
----------------------------------------
Utils testing, enter something to start:
q
-> generate_id: success
-> max: success

tests_utils: success

----------------------------------------
Tree_bin testing, enter something to start:
```

Utils test result (success)

Each individual test is shown on screen with it status, for instance: "→ generate_id: success".
If every tests from a module are successful, you receive a success status. "→ tests_utils: success". You can now go to the next serie of test.



n7student@n7app01: ~/Desktop/methodologie/livrables/tests
File Edit View Search Terminal Help

```
-> stringify_tree: success

-> equal_tree: success

-> clear_tree: success

tests_tree_bin: success

---------------------------------------
Person testing, enter something to start:
d
insert: 'y', then: 'toto', then: 'tata'
You must create a person:
is the person a man (y, n) ?: n

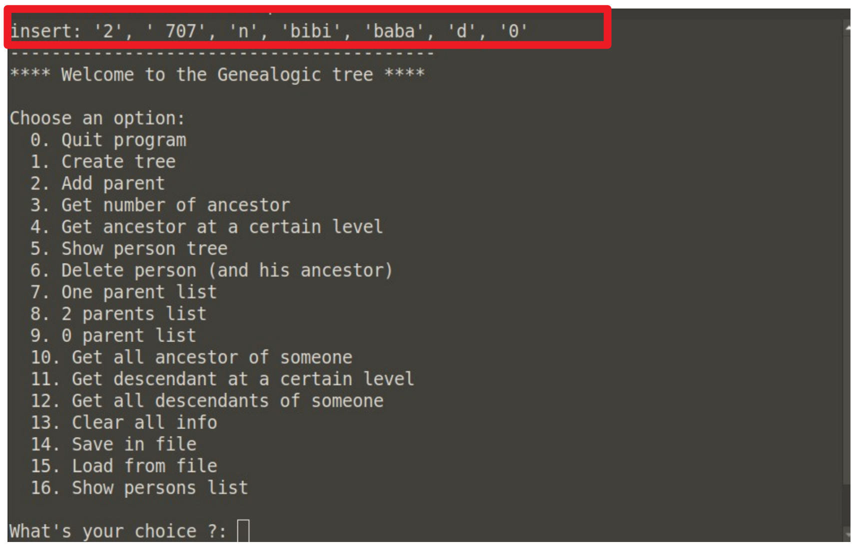
Enter a name: dz

Enter a surname: dz


raised SYSTEM.ASSERTIONS.ASSERT_FAILURE : FAIL: error in create_person -> invali
d person gender
n7student@n7app01:~/Desktop/methodologie/livrables/tests$
```

Example of a failing test

When a test fail, an exception is raised and the program stop. The program gives you a description of what went wrong, here: “error in create_person → invalid person gender”.
By the way, this happened because I did not provide the right entry info requested by the test.
In case of a real error, the developer would have to fix it, recompile and try again.



```
insert: '2', ' 707', 'n', 'bibi', 'baba', 'd', '0'
---------------------------------------
**** Welcome to the Genealogic tree ****

Choose an option:
  0. Quit program
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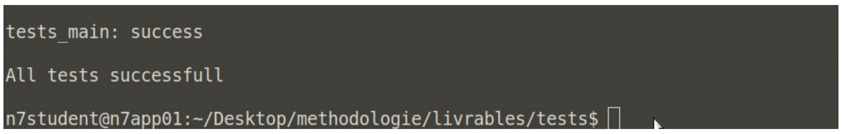
Main test example

As discussed in the report, we do integration testing for *main*. Here you would have to enter this highlighted serie of commands for this particular test to execute properly.



```
tests_main: success

All tests successfull

n7student@n7app01:~/Desktop/methodologie/livrables/tests$
```

Expected result