

OutputFile
- HashMap<String, Person> gm
+ OutputFile(HashMap<String, Person> data) : constructor // receives copy of hash map data in constructor
+ writeResults() : void // writes raw data of persons in hash map to new file

GeneDataBase
- HashMap<String, Person> geneDB
- String fileName
- ArrayList<String> males
- ArrayList<String> females
- ArrayList<String> allPeople
- plantTree() : void // start read in and create "tree" data
- createPartnership(String[] ) : void //creates marriage relationships
- createParents(String[] ) : void //creates parents/child relation
- exportData(): HashMap<String, Person> // returns HashMap database
- getMales(): ArrayList<String> // returns list of all men in the database
- getFemales(): ArrayList<String> // returns list of all women in the database
- getAllPeople(): ArrayList<String> // returns list of all people in the database
- findPerson(String) : Person //returns Person with that ID from HashMap
- findExactNameID(String, String) : ArrayList<String> //returns list of all with that name
- findExactSurnameID(String) : ArrayList<String> //returns list of all with that last name
- findExactFirstNameID(String) : ArrayList<String> //returns list of all with that first name
- getGrandparents(String): ArrayList<String> // returns list of all grandparents of given ID
- getSiblings(String): ArrayList<String> // returns list of all siblings of given ID

GenealogyApp
- GeneDataBase gdb
- OutputFile op
- Person p
- AddPersonGUI ap
- int currentID
+ main

AddPersonGUI
+ Person : newPseron //new Person object to be added to HashMap once user enters info into GUI
+ GUI(ArrayList<String>, ArrayList<String>, ArrayList<String>, int) : void //parameters come from GeneDataBase, used to create drop down boxes, int contains currentID number for person
//GUI will create a pop up with input lines left empty for user to fill in

Person
- ID: String
- givenName: String
- familyName: String
- suffix: String
- dob: String
- dod: String
- age: int
- birthPlace: String
- deathPlace: String
- parentID : String
- spouse : String
+ parents : ArrayList<String>
+ children : ArrayList<String>
+ calculateAge(String, String) : int //takes dod and dob or formats for current date to calculate age in years
+ formatDate(String date) : void //converts a date given in the form of a String to a LocalDate
- newPartnership(String[] , Person): void //sets details of marriage and spouse name for each person
+ toString(): String // returns person full name, with suffix if needed
+ rawData() : String // returns all known data about a person