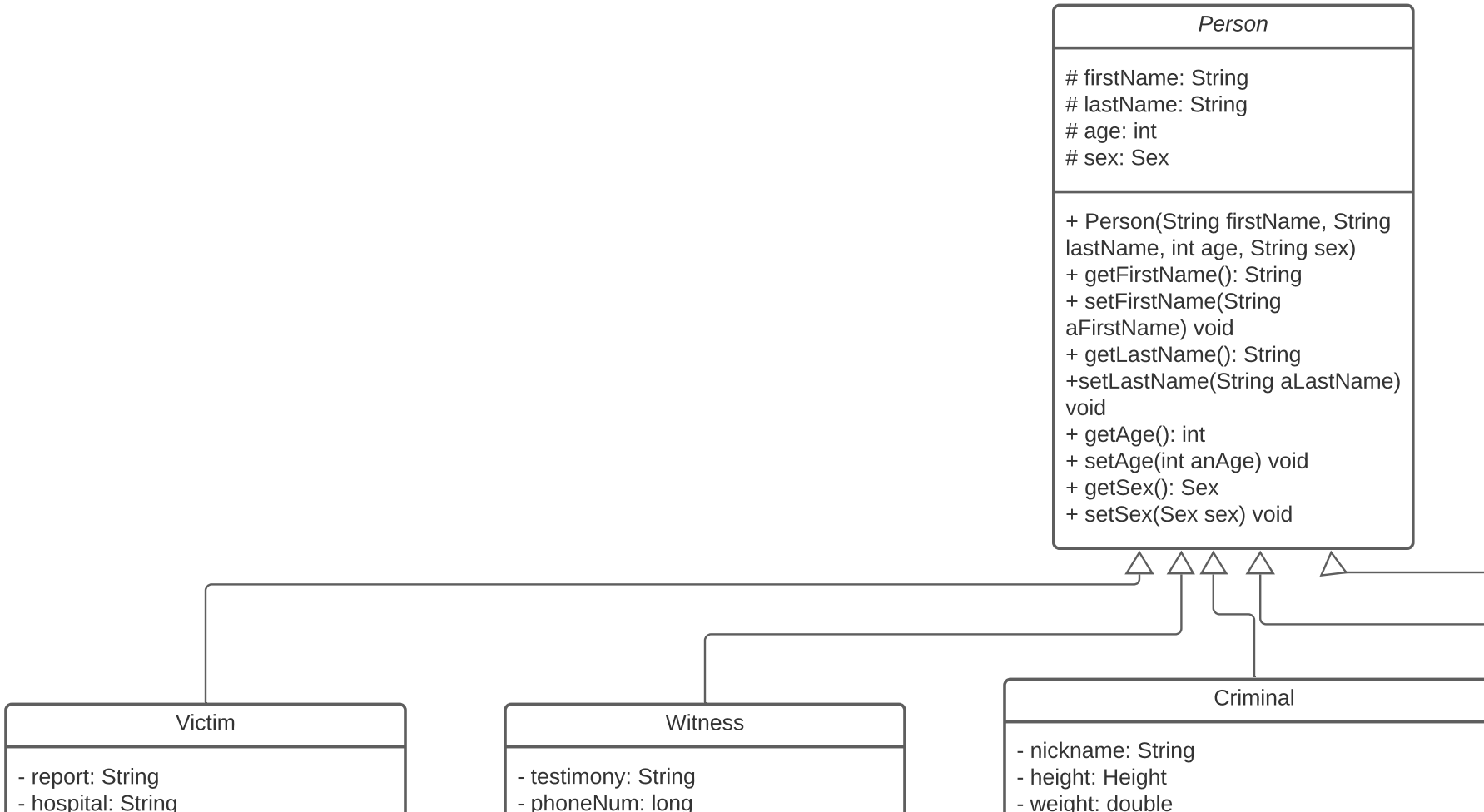
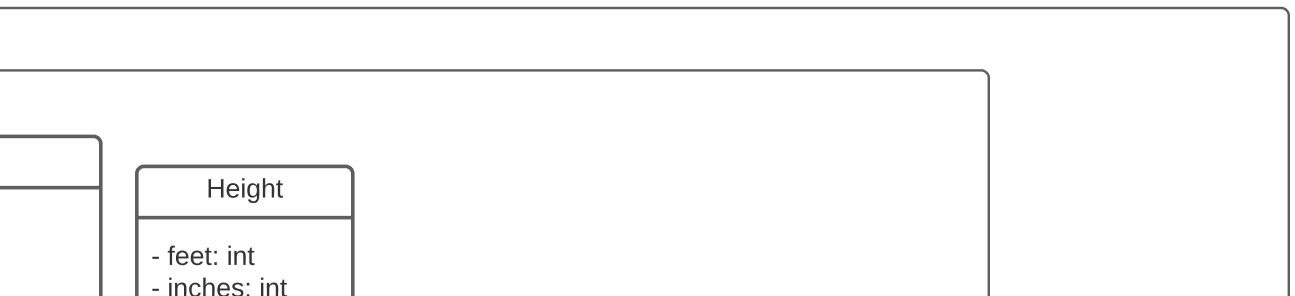
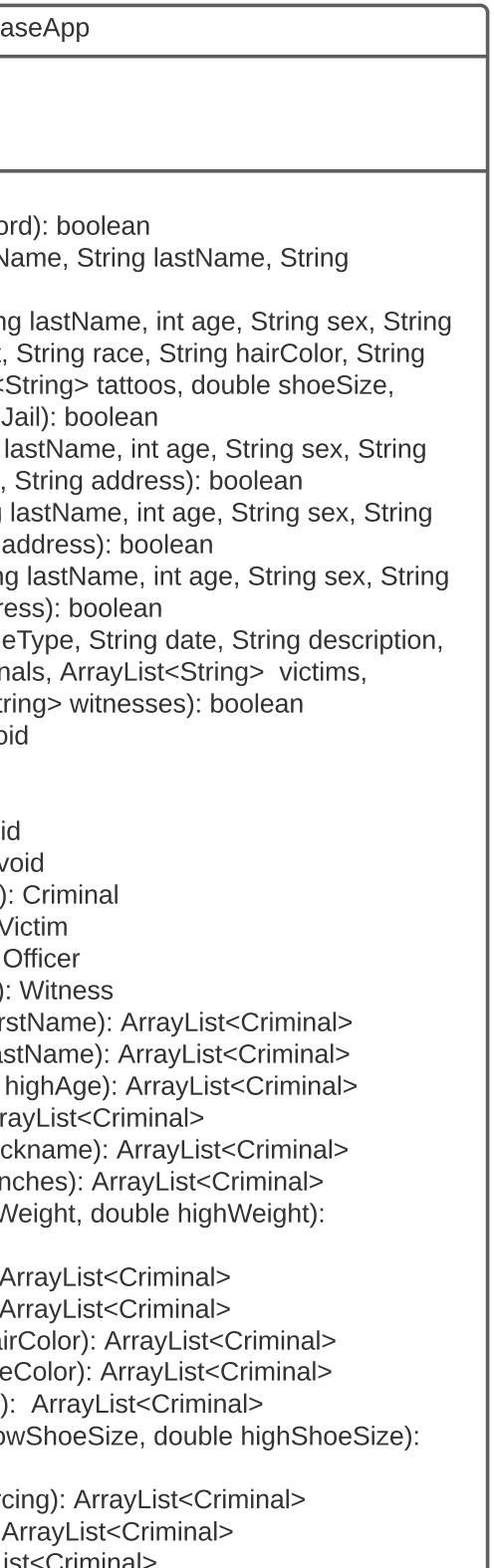

Person
firstName: String
lastName: String
age: int
sex: Sex
+ Person(String firstName, String lastName, int age, String sex)
+ getFirstName(): String
+ setFirstName(String aFirstName) void
+ getLastName(): String
+setLastName(String aLastName) void
+ getAge(): int
+ setAge(int anAge) void
+ getSex(): Sex
+ setSex(Sex sex) void
Victim
- report: String
- hospital: String
Witness
- testimony: String
- phoneNum: long
Criminal
- nickname: String
- height: Height
- weight: double

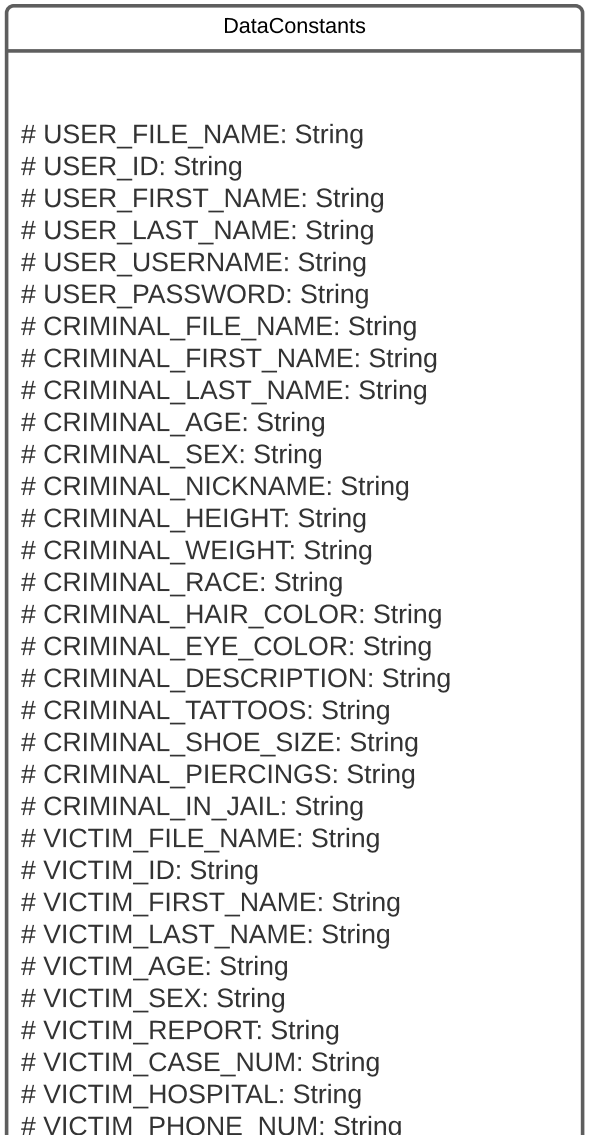


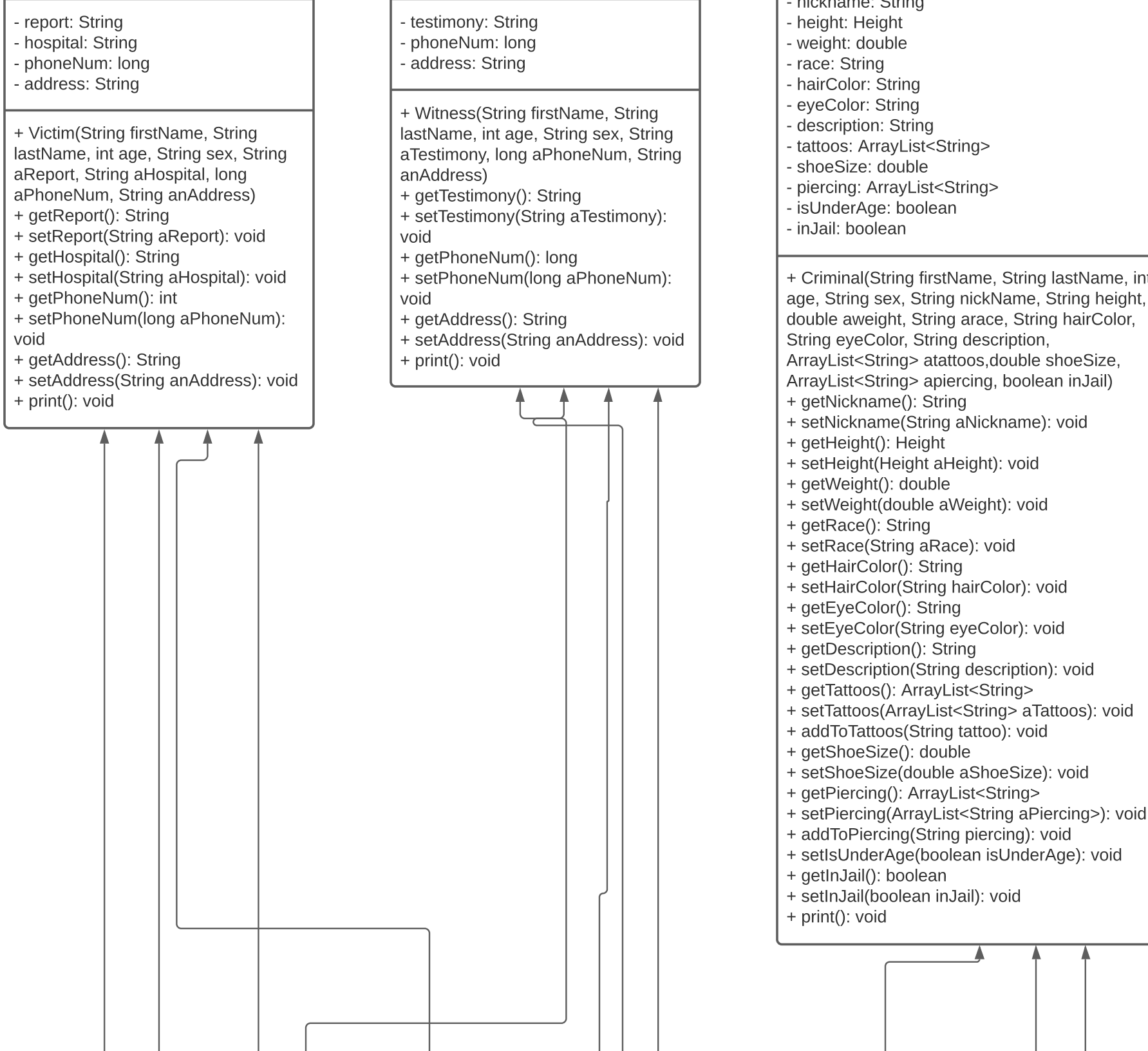
DatabaseAp

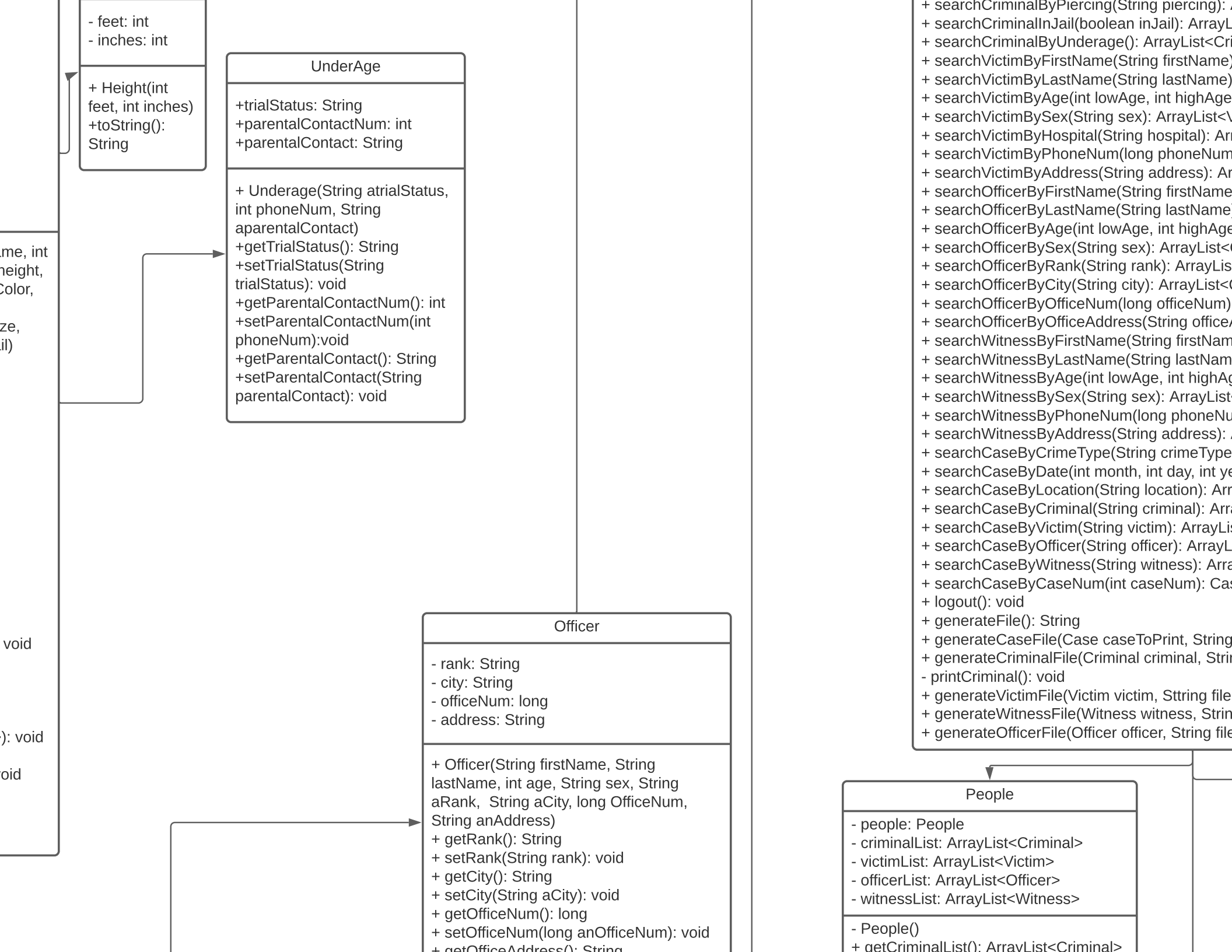
- people: People
- cases: Cases
- users: Users

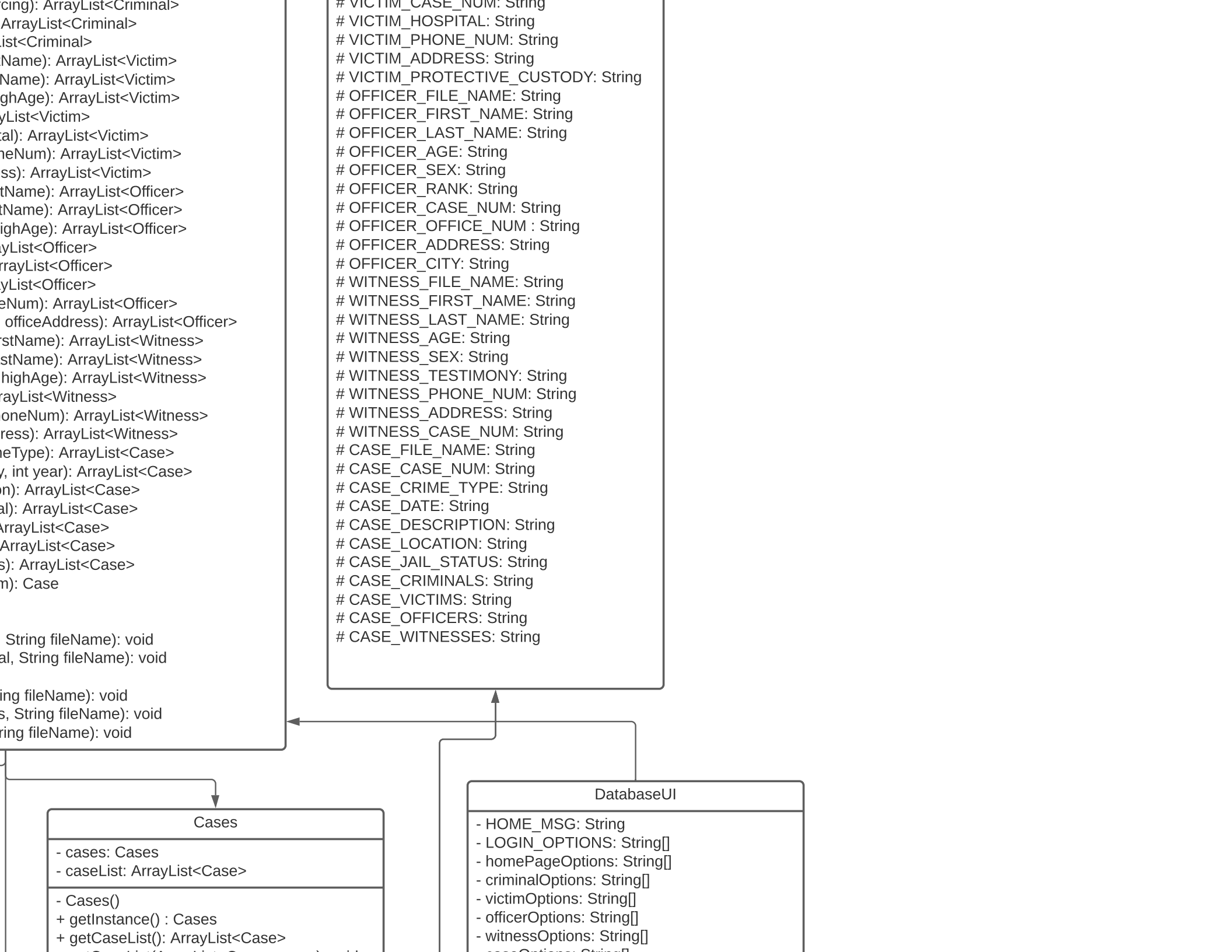
+ DatabaseApp()
+ login(String username, String password): bo
+ createUser(UUID userID, String firstName,
userName, String password): boolean
+ createCriminal(String firstName, String lastN
nickname, String height, double weight, String
eyeColor, String description, ArrayList<String
ArrayList<String> piercings, boolean inJail): b
+ createVictim(String firstName, String lastNa
report, String hospital, long phoneNum, String
+ createOfficer(String firstName, String lastNa
rank,String city, long officeNum, String addres
+ createWitness(String firstName, String lastN
testimony, long phoneNum, String address): b
+ createCase(int caseNum, String crimeType
String location, ArrayList<String> criminals, A
ArrayList<String> officers, ArrayList<String> w
+ changeCriminal(Criminal criminal): void
+ changeVictim(Victim victim): void
+ changeOfficer(Officer officer): void
+ changeWitness(Witness witness): void
+ changeCase(Case caseToChange): void
+ searchCriminalByName(String name): Crim
+ searchVictimByName(String name): Victim
+ searchOfficerByName(String name): Officer
+ searchWitnessByName(String name): Witn
+ searchCriminalByFirstName(String firstNam
+ searchCriminalByLastName(String lastNam
+ searchCriminalByAge(int lowAge, int highAg
+ searchCriminalBySex(String sex): ArrayList
+ searchCriminalByNickname(String nicknam
+ searchCriminalByHeight(int feet, int inches)
+ searchCriminalByWeight(double lowWeight
ArrayList<Criminal>
+ searchCriminalByRace(String race): ArrayL
+ searchCriminalByRace(String race): ArrayL
+ searchCriminalByHairColor(String hairColor
+ searchCriminalByEyeColor(String eyeColor
+ searchCriminalByTattoo(String tattoo): Arra
+ searchCriminalByShoeSize(double lowShoe
ArrayList<Criminal>
+ searchCriminalByPiercing(String piercing): A
+ searchCriminalInJail(boolean inJail): ArrayL
+ searchCriminalByUnderage(): ArrayList<Cri

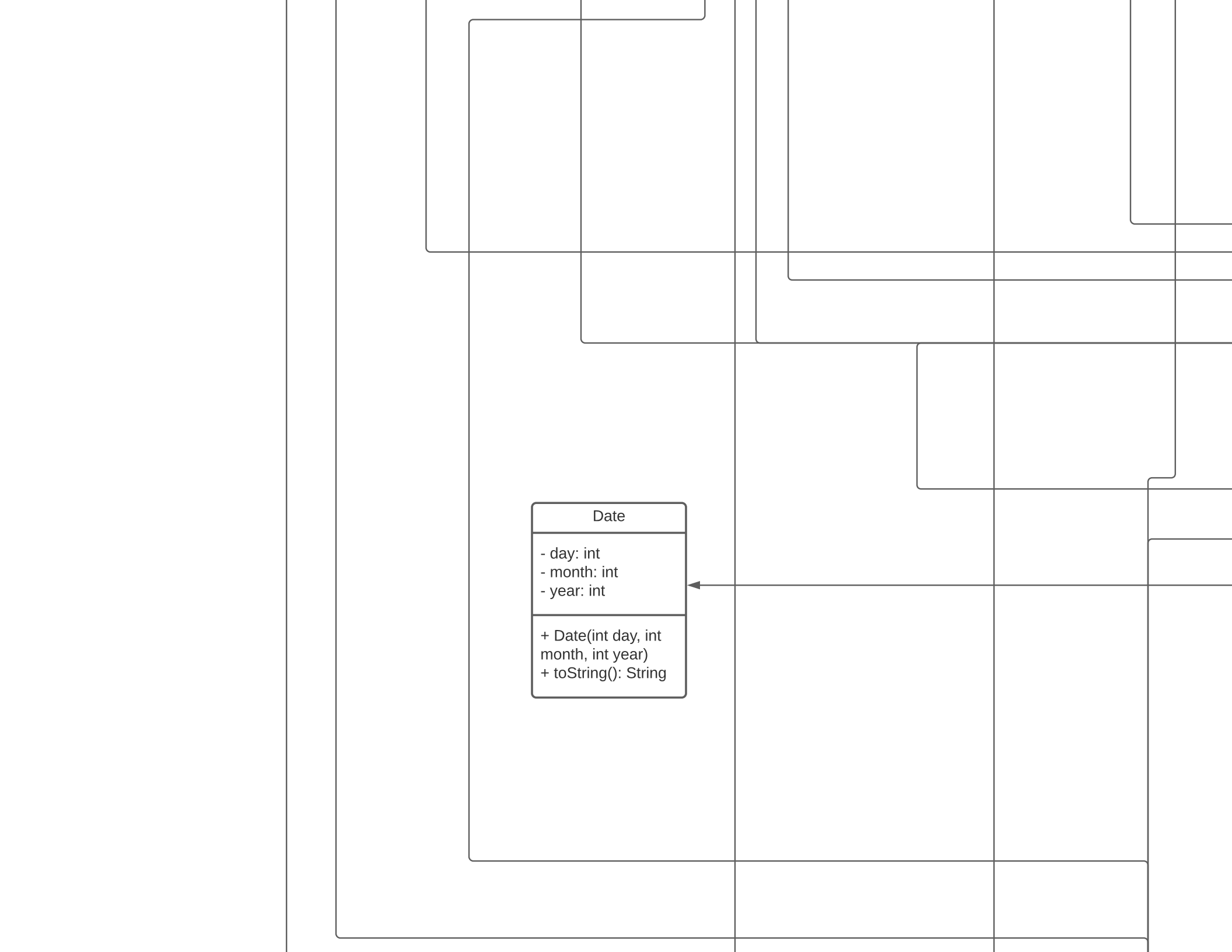

aseApp
ord): boolean
Name, String lastName, String
ng lastName, int age, String sex, String
, String race, String hairColor, String
<String> tattoos, double shoeSize,
Jail): boolean
lastName, int age, String sex, String
, String address): boolean
lastName, int age, String sex, String
address): boolean
ng lastName, int age, String sex, String
ress): boolean
eType, String date, String description,
nals, ArrayList<String> victims,
tring> witnesses): boolean
oid
id
void
): Criminal
Victim
Officer
): Witness
rstName): ArrayList<Criminal>
astName): ArrayList<Criminal>
highAge): ArrayList<Criminal>
rayList<Criminal>
ckname): ArrayList<Criminal>
nches): ArrayList<Criminal>
Weight, double highWeight):
ArrayList<Criminal>
ArrayList<Criminal>
irColor): ArrayList<Criminal>
eColor): ArrayList<Criminal>
): ArrayList<Criminal>
owShoeSize, double highShoeSize):
rcing): ArrayList<Criminal>
ArrayList<Criminal>
ist<Criminal>

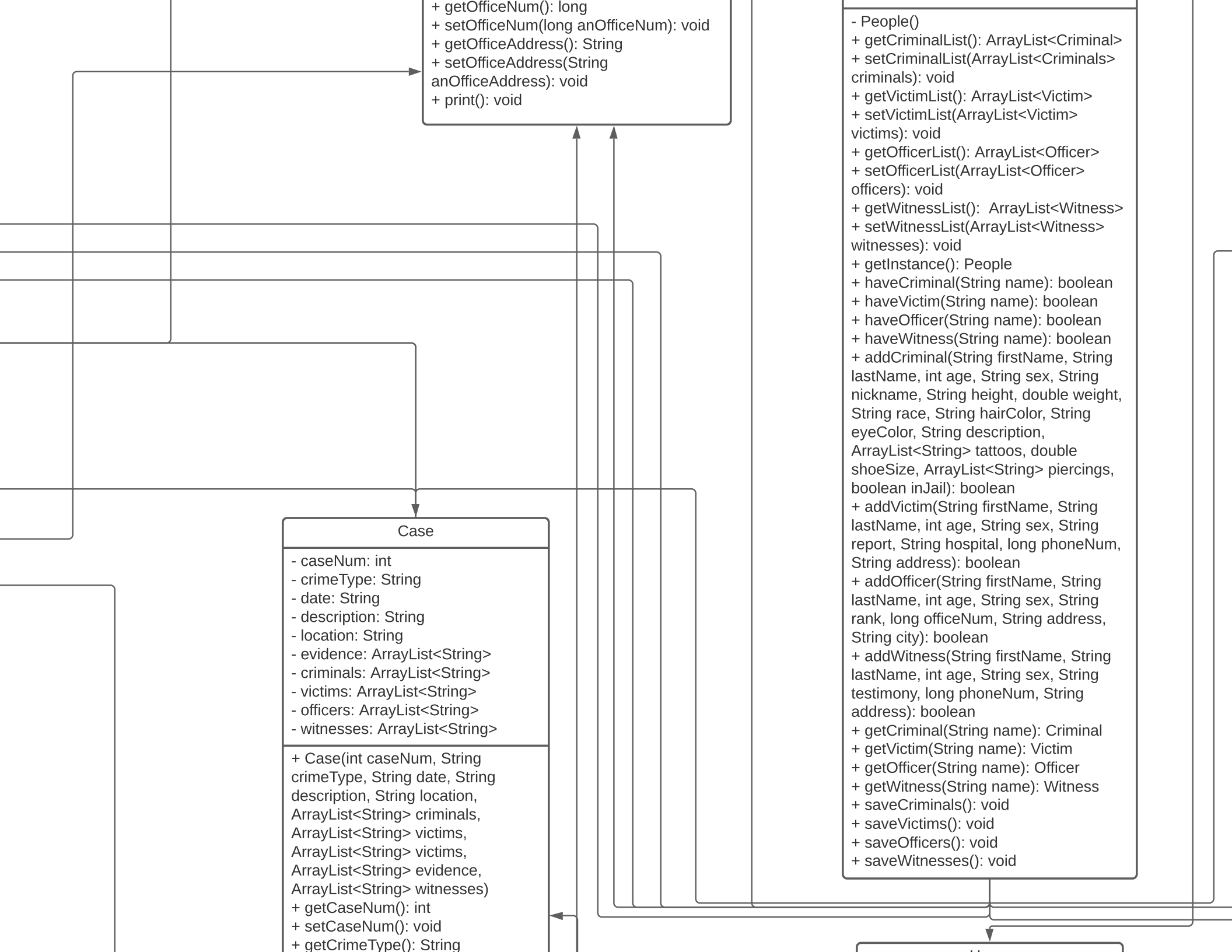

DataConstants
USER_FILE_NAME: String
USER_ID: String
USER_FIRST_NAME: String
USER_LAST_NAME: String
USER_USERNAME: String
USER_PASSWORD: String
CRIMINAL_FILE_NAME: String
CRIMINAL_FIRST_NAME: String
CRIMINAL_LAST_NAME: String
CRIMINAL_AGE: String
CRIMINAL_SEX: String
CRIMINAL_NICKNAME: String
CRIMINAL_HEIGHT: String
CRIMINAL_WEIGHT: String
CRIMINAL_RACE: String
CRIMINAL_HAIR_COLOR: String
CRIMINAL_EYE_COLOR: String
CRIMINAL_DESCRIPTION: String
CRIMINAL_TATTOOS: String
CRIMINAL_SHOE_SIZE: String
CRIMINAL_PIERCINGS: String
CRIMINAL_IN_JAIL: String
VICTIM_FILE_NAME: String
VICTIM_ID: String
VICTIM_FIRST_NAME: String
VICTIM_LAST_NAME: String
VICTIM_AGE: String
VICTIM_SEX: String
VICTIM_REPORT: String
VICTIM_CASE_NUM: String
VICTIM_HOSPITAL: String
VICTIM_PHONE_NUM: String

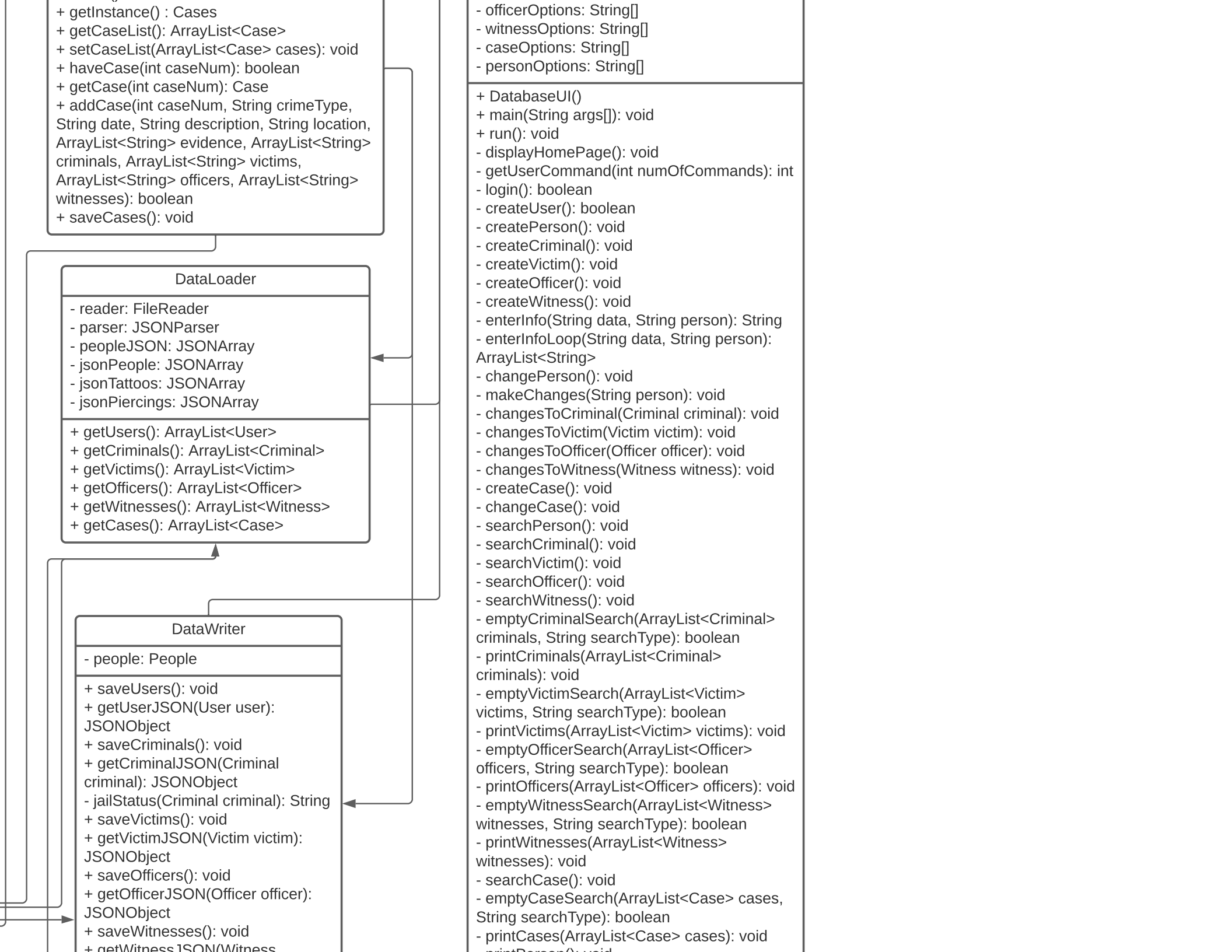

- report: String
- hospital: String
- phoneNum: long
- address: String
+ Victim(String firstName, String lastName, int age, String sex, String aReport, String aHospital, long aPhoneNum, String anAddress)
+ getReport(): String
+ setReport(String aReport): void
+ getHospital(): String
+ setHospital(String aHospital): void
+ getPhoneNum(): int
+ setPhoneNum(long aPhoneNum): void
+ getAddress(): String
+ setAddress(String anAddress): void
+ print(): void
- testimony: String
- phoneNum: long
- address: String
+ Witness(String firstName, String lastName, int age, String sex, String aTestimony, long aPhoneNum, String anAddress)
+ getTestimony(): String
+ setTestimony(String aTestimony): void
+ getPhoneNum(): long
+ setPhoneNum(long aPhoneNum): void
+ getAddress(): String
+ setAddress(String anAddress): void
+ print(): void
- nickname: String
- height: Height
- weight: double
- race: String
- hairColor: String
- eyeColor: String
- description: String
- tattoos: ArrayList<String>
- shoeSize: double
- piercing: ArrayList<String>
- isUnderAge: boolean
- inJail: boolean
+ Criminal(String firstName, String lastName, int age, String sex, String nickName, String height, double aweight, String arace, String hairColor, String eyeColor, String description, ArrayList<String> atattoos,double shoeSize, ArrayList<String> apiercing, boolean inJail)
+ getNickname(): String
+ setNickname(String aNickname): void
+ getHeight(): Height
+ setHeight(Height aHeight): void
+ getWeight(): double
+ setWeight(double aWeight): void
+ getRace(): String
+ setRace(String aRace): void
+ getHairColor(): String
+ setHairColor(String hairColor): void
+ getEyeColor(): String
+ setEyeColor(String eyeColor): void
+ getDescription(): String
+ setDescription(String description): void
+ getTattoos(): ArrayList<String>
+ setTattoos(ArrayList<String> aTattoos): void
+ addToTattoos(String tattoo): void
+ getShoeSize(): double
+ setShoeSize(double aShoeSize): void
+ getPiercing(): ArrayList<String>
+ setPiercing(ArrayList<String aPiercing>): void
+ addToPiercing(String piercing): void
+ setIsUnderAge(boolean isUnderAge): void
+ getInJail(): boolean
+ setInJail(boolean inJail): void
+ print(): void

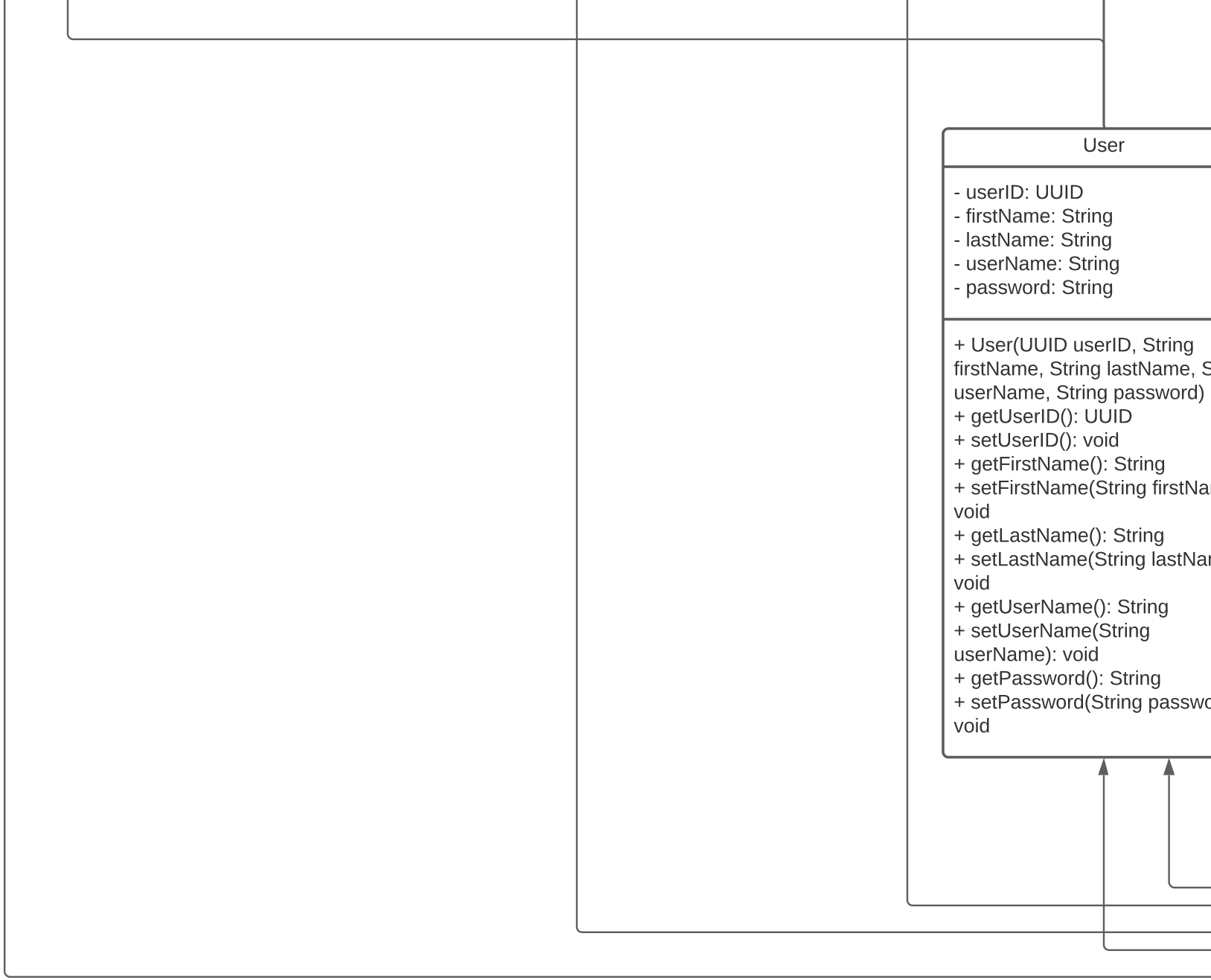

- feet: int
- inches: int
+ Height(int feet, int inches)
+toString(): String
UnderAge
+trialStatus: String
+parentalContactNum: int
+parentalContact: String
+ Underage(String atrialStatus, int phoneNum, String aparentalContact)
+getTrialStatus(): String
+setTrialStatus(String trialStatus): void
+getParentalContactNum(): int
+setParentalContactNum(int phoneNum):void
+getParentalContact(): String
+setParentalContact(String parentalContact): void
Officer
- rank: String
- city: String
- officeNum: long
- address: String
+ Officer(String firstName, String lastName, int age, String sex, String aRank, String aCity, long OfficeNum, String anAddress)
+ getRank(): String
+ setRank(String rank): void
+ getCity(): String
+ setCity(String aCity): void
+ getOfficeNum(): long
+ setOfficeNum(long anOfficeNum): void
+ searchCriminalByPiercing(String piercing):
+ searchCriminalInJail(boolean inJail): ArrayL
+ searchCriminalByUnderage(): ArrayList<Cri
+ searchVictimByFirstName(String firstName)
+ searchVictimByLastName(String lastName)
+ searchVictimByAge(int lowAge, int highAge
+ searchVictimBySex(String sex): ArrayList<V
+ searchVictimByHospital(String hospital): Ar
+ searchVictimByPhoneNum(long phoneNum
+ searchVictimByAddress(String address): Ar
+ searchOfficerByFirstName(String firstName
+ searchOfficerByLastName(String lastName
+ searchOfficerByAge(int lowAge, int highAge
+ searchOfficerBySex(String sex): ArrayList<
+ searchOfficerByRank(String rank): ArrayLis
+ searchOfficerByCity(String city): ArrayList<
+ searchOfficerByOfficeNum(long officeNum)
+ searchOfficerByOfficeAddress(String office
+ searchWitnessByFirstName(String firstNam
+ searchWitnessByLastName(String lastNam
+ searchWitnessByAge(int lowAge, int highAg
+ searchWitnessBySex(String sex): ArrayList
+ searchWitnessByPhoneNum(long phoneNu
+ searchWitnessByAddress(String address):
+ searchCaseByCrimeType(String crimeType
+ searchCaseByDate(int month, int day, int ye
+ searchCaseByLocation(String location): Arr
+ searchCaseByCriminal(String criminal): Arra
+ searchCaseByVictim(String victim): ArrayLis
+ searchCaseByOfficer(String officer): ArrayL
+ searchCaseByWitness(String witness): Arra
+ searchCaseByCaseNum(int caseNum): Cas
+ logout(): void
+ generateFile(): String
+ generateCaseFile(Case caseToPrint, String
+ generateCriminalFile(Criminal criminal, Stri
- printCriminal(): void
+ generateVictimFile(Victim victim, Sttring file
+ generateWitnessFile(Witness witness, Strin
+ generateOfficerFile(Officer officer, String file
People
- people: People
- criminalList: ArrayList<Criminal>
- victimList: ArrayList<Victim>
- officerList: ArrayList<Officer>
- witnessList: ArrayList<Witness>
- People()
+ getCriminalList(): ArrayList<Criminal>

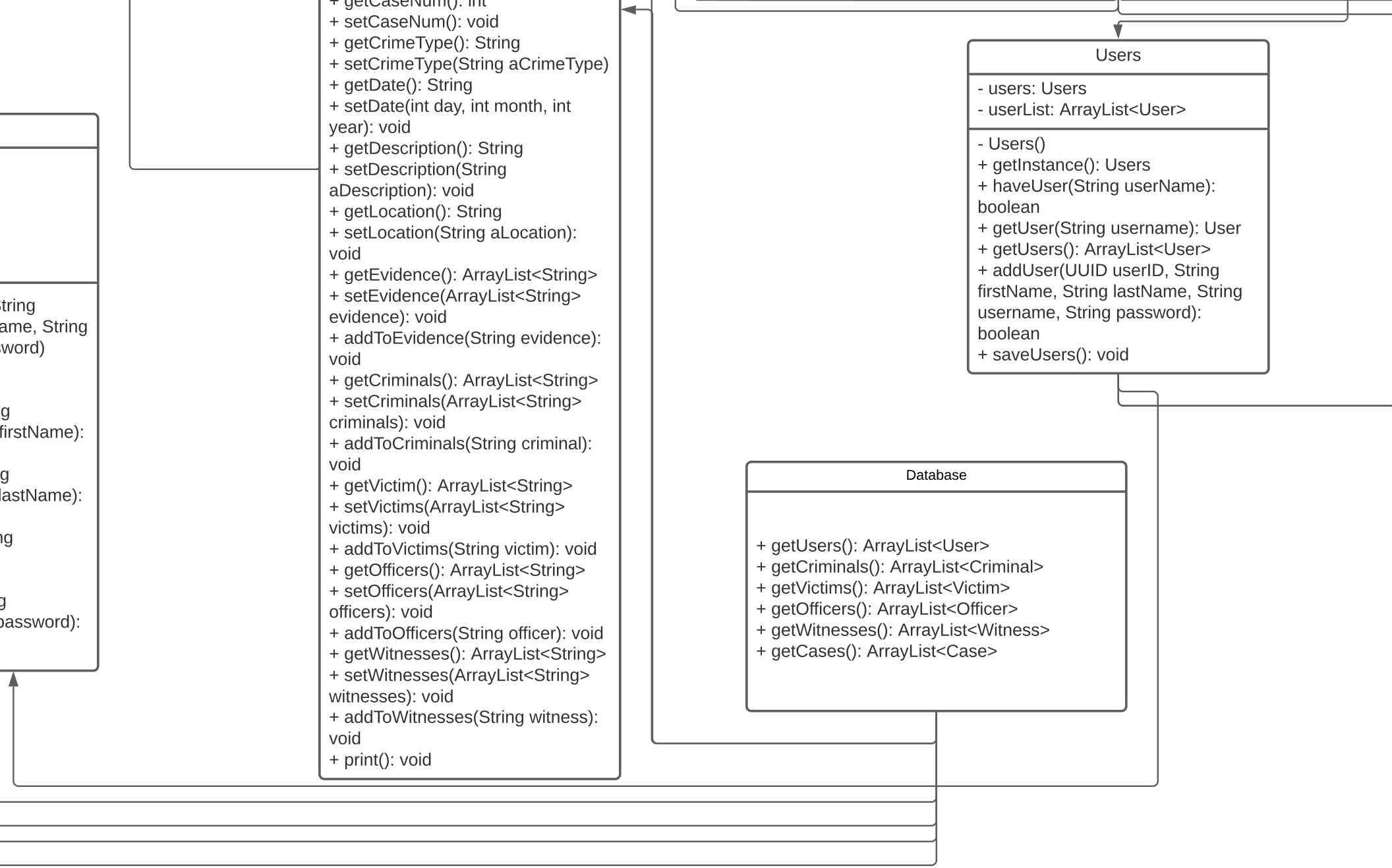

rcing): ArrayList<Criminal>
ArrayList<Criminal>
ist<Criminal>
tName): ArrayList<Victim>
Name): ArrayList<Victim>
ghAge): ArrayList<Victim>
yList<Victim>
tal): ArrayList<Victim>
neNum): ArrayList<Victim>
ss): ArrayList<Victim>
tName): ArrayList<Officer>
tName): ArrayList<Officer>
ighAge): ArrayList<Officer>
yList<Officer>
rrayList<Officer>
yList<Officer>
eNum): ArrayList<Officer>
officeAddress): ArrayList<Officer>
rstName): ArrayList<Witness>
stName): ArrayList<Witness>
highAge): ArrayList<Witness>
rayList<Witness>
oneNum): ArrayList<Witness>
ress): ArrayList<Witness>
eType): ArrayList<Case>
, int year): ArrayList<Case>
n): ArrayList<Case>
al): ArrayList<Case>
ArrayList<Case>
ArrayList<Case>
s): ArrayList<Case>
m): Case
String fileName): void
al, String fileName): void
ing fileName): void
s, String fileName): void
ring fileName): void
VICTIM_CASE_NUM: String
VICTIM_HOSPITAL: String
VICTIM_PHONE_NUM: String
VICTIM_ADDRESS: String
VICTIM_PROTECTIVE_CUSTODY: String
OFFICER_FILE_NAME: String
OFFICER_FIRST_NAME: String
OFFICER_LAST_NAME: String
OFFICER_AGE: String
OFFICER_SEX: String
OFFICER_RANK: String
OFFICER_CASE_NUM: String
OFFICER_OFFICE_NUM : String
OFFICER_ADDRESS: String
OFFICER_CITY: String
WITNESS_FILE_NAME: String
WITNESS_FIRST_NAME: String
WITNESS_LAST_NAME: String
WITNESS_AGE: String
WITNESS_SEX: String
WITNESS_TESTIMONY: String
WITNESS_PHONE_NUM: String
WITNESS_ADDRESS: String
WITNESS_CASE_NUM: String
CASE_FILE_NAME: String
CASE_CASE_NUM: String
CASE_CRIME_TYPE: String
CASE_DATE: String
CASE_DESCRIPTION: String
CASE_LOCATION: String
CASE_JAIL_STATUS: String
CASE_CRIMINALS: String
CASE_VICTIMS: String
CASE_OFFICERS: String
CASE_WITNESSES: String
Cases
- cases: Cases
- caseList: ArrayList<Case>
- Cases()
+ getInstance() : Cases
+ getCaseList(): ArrayList<Case>
DatabaseUI
- HOME_MSG: String
- LOGIN_OPTIONS: String[]
- homePageOptions: String[]
- criminalOptions: String[]
- victimOptions: String[]
- officerOptions: String[]
- witnessOptions: String[]

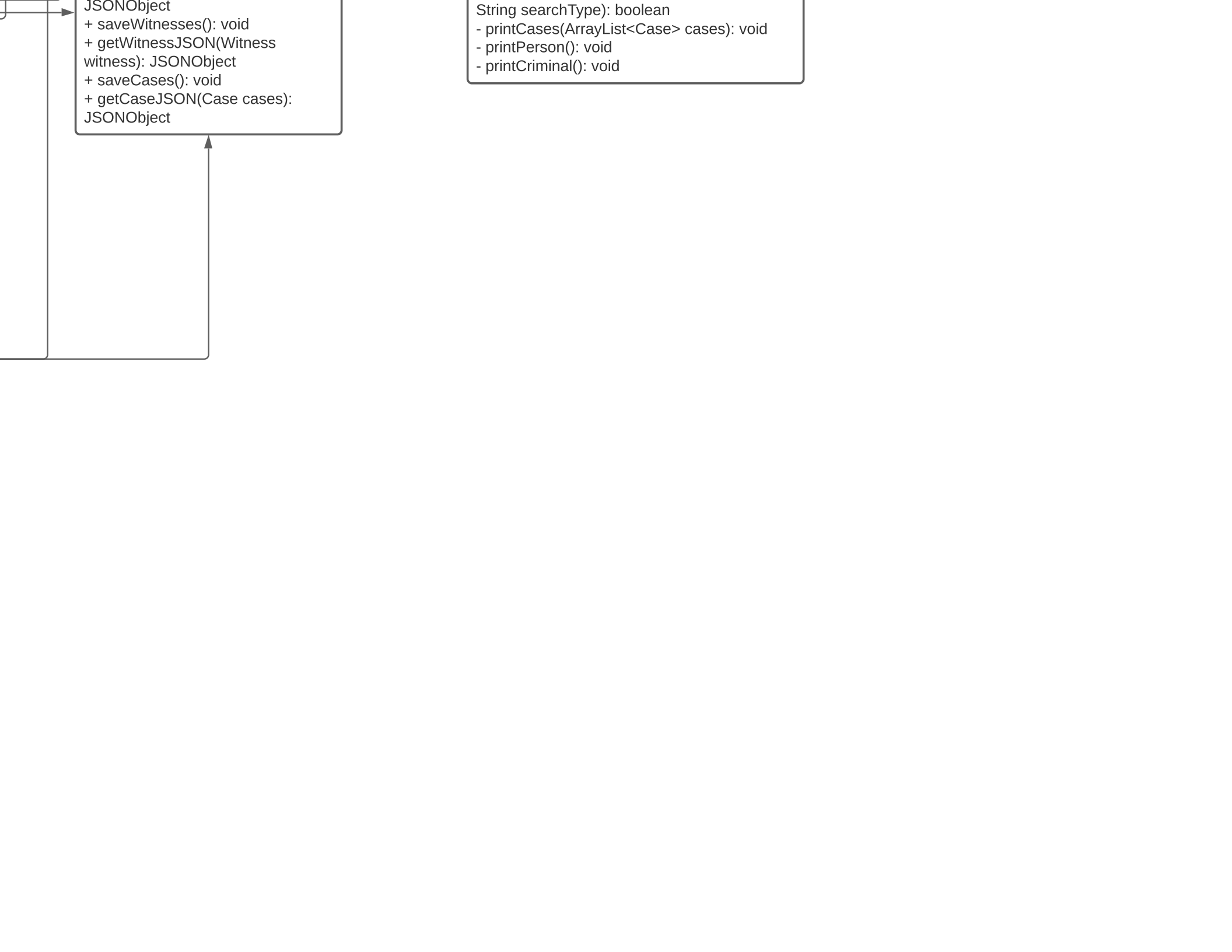

Date
- day: int
- month: int
- year: int
+ Date(int day, int month, int year)
+ toString(): String


+ getOfficeNum(): long
+ setOfficeNum(long anOfficeNum): void
+ getOfficeAddress(): String
+ setOfficeAddress(String anOfficeAddress): void
+ print(): void
- People()
+ getCriminalList(): ArrayList<Criminal>
+ setCriminalList(ArrayList<Criminals> criminals): void
+ getVictimList(): ArrayList<Victim>
+ setVictimList(ArrayList<Victim> victims): void
+ getOfficerList(): ArrayList<Officer>
+ setOfficerList(ArrayList<Officer> officers): void
+ getWitnessList(): ArrayList<Witness>
+ setWitnessList(ArrayList<Witness> witnesses): void
+ getInstance(): People
+ haveCriminal(String name): boolean
+ haveVictim(String name): boolean
+ haveOfficer(String name): boolean
+ haveWitness(String name): boolean
+ addCriminal(String firstName, String lastName, int age, String sex, String nickname, String height, double weight, String race, String hairColor, String eyeColor, String description, ArrayList<String> tattoos, double shoeSize, ArrayList<String> piercings, boolean inJail): boolean
+ addVictim(String firstName, String lastName, int age, String sex, String report, String hospital, long phoneNum, String address): boolean
+ addOfficer(String firstName, String lastName, int age, String sex, String rank, long officeNum, String address, String city): boolean
+ addWitness(String firstName, String lastName, int age, String sex, String testimony, long phoneNum, String address): boolean
+ getCriminal(String name): Criminal
+ getVictim(String name): Victim
+ getOfficer(String name): Officer
+ getWitness(String name): Witness
+ saveCriminals(): void
+ saveVictims(): void
+ saveOfficers(): void
+ saveWitnesses(): void
Case
- caseNum: int
- crimeType: String
- date: String
- description: String
- location: String
- evidence: ArrayList<String>
- criminals: ArrayList<String>
- victims: ArrayList<String>
- officers: ArrayList<String>
- witnesses: ArrayList<String>
+ Case(int caseNum, String crimeType, String date, String description, String location, ArrayList<String> criminals, ArrayList<String> victims, ArrayList<String> victims, ArrayList<String> evidence, ArrayList<String> witnesses)
+ getCaseNum(): int
+ setCaseNum(): void
+ getCrimeType(): String


+ getInstance() : Cases
+ getCaseList(): ArrayList<Case>
+ setCaseList(ArrayList<Case> cases): void
+ haveCase(int caseNum): boolean
+ getCase(int caseNum): Case
+ addCase(int caseNum, String crimeType, String date, String description, String location, ArrayList<String> evidence, ArrayList<String> criminals, ArrayList<String> victims, ArrayList<String> officers, ArrayList<String> witnesses): boolean
+ saveCases(): void
DataLoader
- reader: FileReader
- parser: JSONParser
- peopleJSON: JSONArray
- jsonPeople: JSONArray
- jsonTattoos: JSONArray
- jsonPiercings: JSONArray
+ getUsers(): ArrayList<User>
+ getCriminals(): ArrayList<Criminal>
+ getVictims(): ArrayList<Victim>
+ getOfficers(): ArrayList<Officer>
+ getWitnesses(): ArrayList<Witness>
+ getCases(): ArrayList<Case>
DataWriter
- people: People
+ saveUsers(): void
+ getUserJSON(User user): JSONObject
+ saveCriminals(): void
+ getCriminalJSON(Criminal criminal): JSONObject
- jailStatus(Criminal criminal): String
+ saveVictims(): void
+ getVictimJSON(Victim victim): JSONObject
+ saveOfficers(): void
+ getOfficerJSON(Officer officer): JSONObject
+ saveWitnesses(): void
- officerOptions: String[]
- witnessOptions: String[]
- caseOptions: String[]
- personOptions: String[]
+ DatabaseUI()
+ main(String args[]): void
+ run(): void
- displayHomePage(): void
- getUserCommand(int numOfCommands): int
- login(): boolean
- createUser(): boolean
- createPerson(): void
- createCriminal(): void
- createVictim(): void
- createOfficer(): void
- createWitness(): void
- enterInfo(String data, String person): String
- enterInfoLoop(String data, String person): ArrayList<String>
- changePerson(): void
- makeChanges(String person): void
- changesToCriminal(Criminal criminal): void
- changesToVictim(Victim victim): void
- changesToOfficer(Officer officer): void
- changesToWitness(Witness witness): void
- createCase(): void
- changeCase(): void
- searchPerson(): void
- searchCriminal(): void
- searchVictim(): void
- searchOfficer(): void
- searchWitness(): void
- emptyCriminalSearch(ArrayList<Criminal> criminals, String searchType): boolean
- printCriminals(ArrayList<Criminal> criminals): void
- emptyVictimSearch(ArrayList<Victim> victims, String searchType): boolean
- printVictims(ArrayList<Victim> victims): void
- emptyOfficerSearch(ArrayList<Officer> officers, String searchType): boolean
- printOfficers(ArrayList<Officer> officers): void
- emptyWitnessSearch(ArrayList<Witness> witnesses, String searchType): boolean
- printWitnesses(ArrayList<Witness> witnesses): void
- searchCase(): void
- emptyCaseSearch(ArrayList<Case> cases, String searchType): boolean
- printCases(ArrayList<Case> cases): void


User
- userID: UUID
- firstName: String
- lastName: String
- userName: String
- password: String
+ User(UUID userID, String
firstName, String lastName, S
userName, String password)
+ getUserID(): UUID
+ setUserID(): void
+ getFirstName(): String
+ setFirstName(String firstNa
void
+ getLastName(): String
+ setLastName(String lastNa
void
+ getUserName(): String
+ setUserName(String
userName): void
+ getPassword(): String
+ setPassword(String passwo
void


+ getCaseNum(): int
+ setCaseNum(): void
+ getCrimeType(): String
+ setCrimeType(String aCrimeType)
+ getDate(): String
+ setDate(int day, int month, int year): void
+ getDescription(): String
+ setDescription(String aDescription): void
+ getLocation(): String
+ setLocation(String aLocation): void
+ getEvidence(): ArrayList<String>
+ setEvidence(ArrayList<String> evidence): void
+ addToEvidence(String evidence): void
+ getCriminals(): ArrayList<String>
+ setCriminals(ArrayList<String> criminals): void
+ addToCriminals(String criminal): void
+ getVictim(): ArrayList<String>
+ setVictims(ArrayList<String> victims): void
+ addToVictims(String victim): void
+ getOfficers(): ArrayList<String>
+ setOfficers(ArrayList<String> officers): void
+ addToOfficers(String officer): void
+ getWitnesses(): ArrayList<String>
+ setWitnesses(ArrayList<String> witnesses): void
+ addToWitnesses(String witness): void
+ print(): void
Users
- users: Users
- userList: ArrayList<User>
- Users()
+ getInstance(): Users
+ haveUser(String userName): boolean
+ getUser(String username): User
+ getUsers(): ArrayList<User>
+ addUser(UUID userID, String firstName, String lastName, String username, String password): boolean
+ saveUsers(): void
Database
+ getUsers(): ArrayList<User>
+ getCriminals(): ArrayList<Criminal>
+ getVictims(): ArrayList<Victim>
+ getOfficers(): ArrayList<Officer>
+ getWitnesses(): ArrayList<Witness>
+ getCases(): ArrayList<Case>
tring
ame, String
sword)
g
firstName):
g
lastName):
ng
g
password):


JSONObject
+ saveWitnesses(): void
+ getWitnessJSON(Witness witness): JSONObject
+ saveCases(): void
+ getCaseJSON(Case cases): JSONObject
String searchType): boolean
- printCases(ArrayList<Case> cases): void
- printPerson(): void
- printCriminal(): void