**APU Gym CentreManagement System(AGC)**

1. Centre managers
   1. Manage end users registration
   2. Register centre customers
   3. Book training sessions for centre customers with specific trainers
   4. Report generation (maybe trainers should be able as well?)
2. Centre trainers
   1. Cheсk their individual training sessions
   2. Collect payments
   3. Provide feedback at the end of each session
3. Both
   1. Registration
   2. Authentication
   3. Main menu

Classes:

1. Person
   1. Id: int
   2. Name: str
   3. DOB: date
   4. Phone: str
   5. Email: str
   6. Gender: char
   7. checkDOB(date dob, int age\_lim): bool
   8. checkPhone(str phone): bool
   9. checkEmail(str email): bool
2. User(Person)
   1. User\_id: int
   2. Login: str
   3. Password: str
   4. SignIn(str login, str password): bool
   5. CheckLogin(str login, bool match): bool
   6. CheckPassword(str password): bool
   7. CheckPasswordStrength(str password): bool
   8. checkDOB(date dob, int age\_lim=18): bool
   9. getTable(str table\_name, str filter): table // maybe pass filter as a string and then parse it or pass multiple parameters like one for the column to filter, the other for the value, the third for the type of filter (>, <, ==, !=, contains, etc.)
3. Manager(User)
   1. Manager\_id: int
   2. updateUser(User user): bool
   3. Book(int customer, int trainer, date date, time time): bool
   4. generateReport(str table\_name, str filter): bool
4. Trainer(User)
   1. Trainer\_id: int
   2. Photo: str
   3. checkPhoto(str photo) // maybe don’t need
   4. getSessions(str filter): Table
   5. getSession(int id): Session
   6. CollectPayment(int session): bool
   7. leaveFeedback(int session, int rating, str feeback\_text): bool
5. Database
   1. Filename: string
   2. getTable(str name): String
   3. getRow(int id, str name): String
   4. getPersons(str filter): person array
   5. getUsers(str filter): user array
   6. getManagers(str filter): manager array
   7. getTrainers(str filter): trainer array
   8. getSessions(str filter): session array
   9. getPerson(int id, str filter): person
   10. getUser(int id, str filter): user
   11. getManager(int id, str filter): manager
   12. getTrainer(int id, str filter): trainer
   13. getSession(int id, str filter): session
6. Session:
   1. Id: int
   2. Customer: customer
   3. Trainer: trainer
   4. Date: date
   5. Time: time
   6. Price: float
   7. Paid: bool
   8. saveDB(): bool
   9. removeDB(): bool