Login

Password: String
UserID: String

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getProfile(UserID); profile
getPassword(String)
checkPassword(String);bool

Profile

Password: String
Activity: String
UserID: String
Age: int
Sex: String
Name: String

GetStats(); Statistic
GetActivtyData();ActivityArchive
AddRunData(ActivtyData, List<ActivityData>);
SearchFriend(String,List<user>);String
ViewFriend(String);
AddFriend(String);
Getuser();String
GetPassword();String
SetPassword(String);
GetAge(); int
GetSex();String
GetName();String

CreateProfile

UserID:String
Password:String
Age:int
Sex:String
Name: string

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createProfile(UserID,Password);
setName(String);
setAge(int);
setSex(String);

Friends

ViewFriendStat(Profile);Statistic
ViewFriendAge(Profile);int
ViewFriendSex(Profile);String
ViewFriendName(Profile);String

ActivityArchive

Activtylist: List <ActivityData>

AddActivityData(ActivityData);
GetActivityData(Activitylist);
GetStatistics(Activitylist);Statistics
RemoveData(Activitylist);

ActivityData

Activity: String
Caloriesused: double
HeartRate: double
Averagespeed: double
Pace: double
Dehydration: double
CumulDistance:double

Importdevicedata();
SetCaloriesused(double);
SetHeartRate(double);
SetAverageSpeed(double);
SetPace(double);
SetDehydration(double);
SetDistance(double);
SetActivity(String);
GetCaloriesused(); double
GetHeartRate(); double
GetAverageSpeed(); double
GetPace(); double
Getdehydration(); double
GetDistance(); double
GetActivity(); String

Statistics

Activitylist:list<Activitydata>
Caloriesused: double
HeartRate:double
Averagespeed:double
Pace:double
Dehydration:double
CumulDistance:double

CalculateStatistics(list[ActivityData]);
GetTotalCaloriesused();
GetAverageHeartRate();
GetTotalAverageSpeed();
GetAveragePace();
GetAveragedehydration();
GetCumulativeDistance();

Smart Device

Class Responsibilities:

Login – This allows the user to go to their existing profile with their username and password. Also checks the password for if its correct.

CreateProfile – The user can sets their information like sex, age, name. The main function allows for the creation of a profile.

Profile- All a user's information can be saved, edited, and received through the profile. Allows the ability to add other friends, search for friends. Allows the ability to change the password,

Friends- Friends allows limited viewing of an added friend's information, for example their statistics

ActivityArchive- Allows for the containment of all activity data no matter the activity, also allows the specific Activitydata to be removed and added.

ActivityData – Specific Activity information can be modified and given for information like pace, speed, etc. The ActivityData function also allows for this information to be received from a smart device.

Statistics- Receives a list from the ActivityArchive and then calculates the overall average statistics from that.