DreamTeam Project Architecture

Description of Components

WorkoutListModel

- This component is a model that stores each workout entered by a given user.
- Only the AddWorkoutController, EditWorkoutController, and GetWorkoutsController can communicate with WorkoutListModel.
    - AddWorkoutController can ask WorkoutListModel to store a new workout.
    - EditWorkoutController can ask WorkoutListModel to change information of a previous workout.
    - AddWorkoutController, GetWorkoutsController, and EditWorkoutController can ask WorkoutListModel for previous workouts.

AddWorkoutController

- This component is a controller for inputting new workout information.
- AddWorkoutController can only be accessed from NewWorkoutView and communicates with WorkoutListModel.
    - AddWorkoutController can receive data typed into the NewWorkoutView.
    - AddWorkoutController will then ask WorkoutListModel to store this data.

EditWorkoutController

- This component is a controller for changing data in a workout that was already added.
- EditWorkoutController can only be accessed from EditWorkoutView and communicates with WorkoutListModel.
    - EditWorkoutController can receive data typed into the EditWorkoutView.
    - EditWorkoutController will then ask WorkoutListModel to update with this data.

GetWorkoutsController

- This component is a controller for grabbing complete workout history.
- GetWorkoutsController can only be accessed from WorkoutHistoryView and communicates with WorkoutListModel.
    - GetWorkoutsController can ask WorkoutListModel for all previous workouts.
    - EditWorkoutController can send the workouts to WorkoutHistoryView.

NewWorkoutView

- This component is a view for inputting new workout information.
- NewWorkoutView communicates with HomeGUIView and AddWorkoutController.
    - NewWorkoutView can be accessed from a button on HomeGUIView.
    - AddWorkoutController can grab data typed into NewWorkoutView queries.

EditWorkoutView

- This component is a view for updating preexisting workout information.
- EditWorkoutView communicates with HomeGUIView and EditWorkoutController.
    - EditWorkoutView can be accessed from a button on HomeGUIView.
    - EditWorkoutController can grab data typed into EditWorkoutView queries.

WorkoutHistoryView

- This component is a view for observing past workout information.
- EditWorkoutView communicates with HomeGUIView and GetWorkoutsController.
    - EditWorkoutView can be accessed from a button on HomeGUIView.
    - EditWorkoutView receives and displays data from GetWorkoutsController.

UsersModel

- This component is a model that stores each user created account.
- CreateProfileController, EditProfileController, LoadProfileController, and ViewFriendsController can communicate with UsersModel.
    - CreateProfileController can ask UsersModel to store a new account.
    - EditProfileController can ask UsersModel to change information of an existing account.
    - LoadProfileController can ask UsersModel to check if a login attempt matches an account.
    - ViewFriendsController can ask UsersModel for accounts tagged as friends.

CreateProfileController

- This component is a controller for creating a new account.
- CreateProfileController can only be accessed from LoginView and communicates with UsersModel.
    - CreateProfileController can receive user input from LoginView.
    - CreateProfileController can ask UsersModel to store this input as a new account.

EditProfileController

- This component is a controller for editing an existing account.
- EditProfileController can only be accessed from ProfileView and communicates with UsersModel.
    - EditProfileController can receive user input from ProfileView.
    - CreateProfileController can ask UsersModel to update the current account with this input.

LoadProfileController

- This component is a controller for logging into an existing account.
- LoadProfileController can only be accessed from LoginView and communicates with UsersModel.
    - LoadProfileController can receive user input from LoginView.
    - LoadProfileController can ask UsersModel to check this input against all existing accounts.

ViewFriendsController

- This component is a controller for viewing a user's friends list.
- ViewFriendsController can only be accessed from FriendsView and communicates with UsersModel.
    - ViewFriendsController can ask UsersModel for information about all accounts marked as friends.
    - ViewFriendsController can update FriendsView

HomeGUIView

- This component is a view for navigating between feature
- HomeGUIView communicates with LoginView, ProfileView, FriendsView, NewWorkoutView, EditWorkoutView, and WorkoutHistoryView.
    - Each of the views listed above can be accessed by selecting an option on HomeGUIView.

LoginView

- This component is a view for creating accounts and logging in.
- LoginView communicates with HomeGUIView, CreateProfileController, and LoadProfileController.
    - LoginView can proceed to HomeGUIView
    - LoginView can send user input to CreateProfileController
    - LoginView can send user input to LoadProfileController

ProfileView

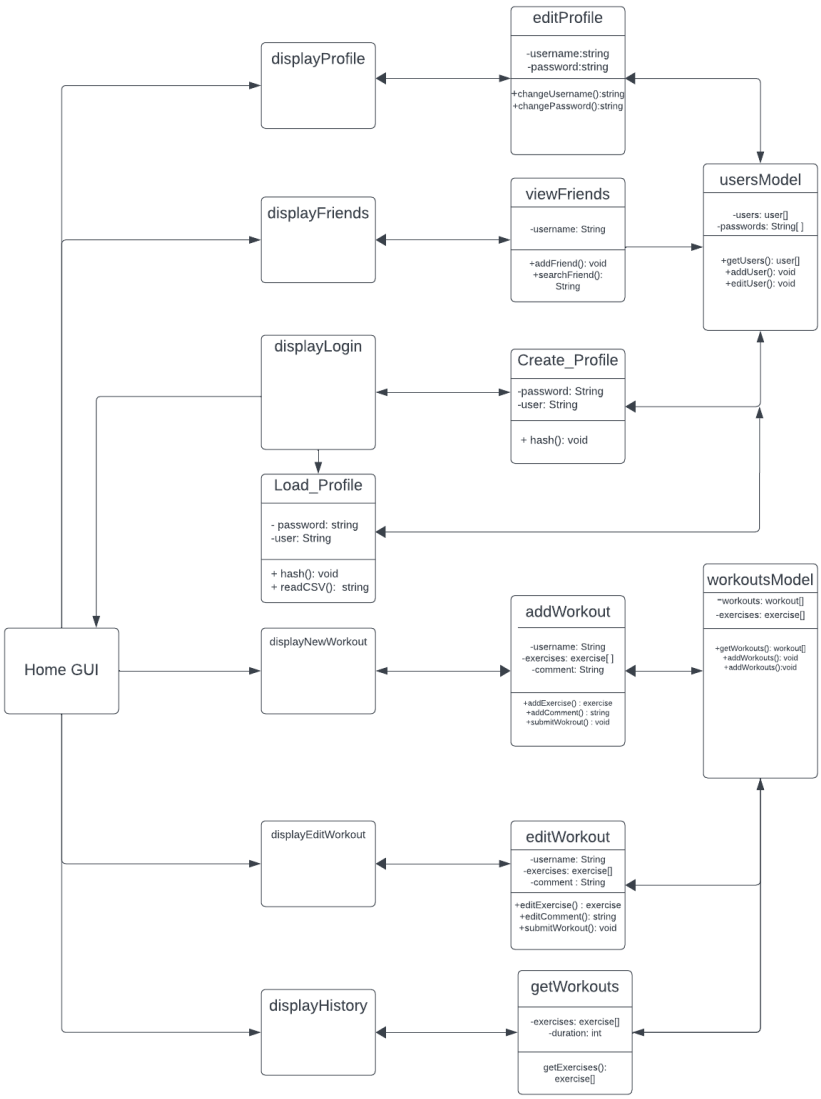
- This component is a view for observing and editing user account information.
- ProfileView communicates with HomeGUIView and EditProfileController.
    - ProfileView can be accessed from HomeGUIView.
    - ProfileView can receive data from and send updates to EditProfileController.

FriendsView

- This component is a view for observing account information from friends.
- ProfileView communicates with HomeGUIView and ViewFriendsController.

- ProfileView can be accessed from HomeGUIView.
- ProfileView can receive and display data from ViewFriendsController.

UML Diagram



Component Stubs (each class in bold)

Create_Profile

```
Private user passwordHash(password,user) {

        //TODO Replace with actual algorithm
        return user;
}
```

Load_Profile

```
private String readfromProfileCSV(password,user) {

        //TODO Replace with actual algorithm
        return user_profile;

}
```

User_Model

```
private void writetoProfileCSV(password,user) {

        //TODO Replace with actual algorithm

}

private array getUsers() {

        //TODO Replace with actual algorithm
        return users_array;
}

private void addUser(password,user) {

        //TODO Replace with actual algorithm

}

private void editUser(password,user) {
```

```
        //TODO Replace with actual algorithm

}
```

Edit_Profile

```
public string changeUsername(password,user) {

        //TODO Replace with actual algorithm
        return new_username;

}

public string changePassword(password,user) {

        //TODO Replace with actual algorithm
        return new_password;

}
```

View_Friends

```
public void addFriend(user) {

        //TODO Replace with actual algorithm

}

public string searchFriend(user_input) {

        //TODO Replace with actual algorithm
        return user_matches;

}
```

Add_Workout

```
public exercise addExercise(type, duration) {

        //TODO Replace with actual algorithm
        return new_exercise;
```

```
}

public string addComment(input) {

        //TODO Replace with actual algorithm
        return comment;

}

public void submitWorkout(exercises[], string comment) {

        //TODO Replace with actual algorithm

}
```

Workouts_Model

```
public workouts[] getWorkouts() {

        //TODO Replace with actual algorithm
        return workouts_list;

}

public void addWorkouts() {

        //TODO Replace with actual algorithm

}
```

Edit_Workout

```
public exercise editExercise() {

        //TODO Replace with actual algorithm
        return updated;

}

public string editComment() {

        //TODO Replace with actual algorithm
```

```
        return updated;

}

public void submitWorkout() {

        //TODO Replace with actual algorithm

}
```

Get_Workouts

```
public exercise[] getExercises() {

        //TODO Replace with actual algorithm
        return exercise_list;

}
```