Comp 2005
Assignment 2

- Identify features of the system you are supposed to implement. [Mitch]
- Provide a full description for one additional use case (priority based). [Mitch]
- Trace use cases back to their feature requirements using a traceability matrix. [Mitch]
- Using UML notation, describe the major conceptual classes in the system with their attributes and associations (create application domain model). [Jacob]
- Identify modules that are needed to handle the functionality of your system [Jacob]
- Implement a prototype of the GUI for your application. [Nabil]

1) Features of the system to be implemented:
   a) User profiles (create/edit/delete); identity management (identification of users as logical entities for purposes of friend requests, activity logging, etc.)
   b) Import and edit data from simulated device (will be a text file)
   c) Display activity statistics (distance, speed, length, calories burnt, more details to come)
   d) Social features (approval of friend requests will allow view of their stats)

2) <u>Name</u>
   Create a user profile
   <u>Description</u>
   Allow the user to create a profile on the system.
   <u>Actors</u>
   Customer, Application
   <u>Flow</u>
   The first time a user opens the application, they will be prompted with a "Create Profile" button. Once they click the button, they will be asked to fill in personal data such as name, age, sex, height, weight, etc. Every field except for "Name" will be optional. Once the user has entered their information, they will click on the "Done" button at the bottom of the window.
   <u>Alternate flow</u>
   a) If the user already has a profile, they will be logged in automatically. No "Create Profile" button will appear.

b) If the user tries to click "Done" when creating a profile without entering a valid name, an error will be displayed to the user, and the profile will not be created.

Preconditions
a) The user has the application installed.
b) The user does not already have an account.

Postcondition
The user will have a profile on the application.

3) Traceability Matrix

Features ➡ Use Cases ↓	User Profile	Import data from device	Display activity statistics	Friends
Create user profile	X			
Edit user profile	X			
Delete user profile	X			
Import data from device	X	X		
Edit imported data	X	X		
View activity statistics	X	X	X	
Send friend request	X			X
Accept friend request	X			X
Decline friend request	X			X

5) Modules required for the OO design:
a) MainWindow class handles GUI logic
b) ActivityTracker provides a central app class

c) <u>User</u> allows identification of users, interaction between users, and identity management
d) <u>Session</u> remembers if a user is logged in
e) <u>Device</u> contains device information
f) <u>DBManager</u> used to store, retrieve, and update user and entity information
g) <u>Workout</u> contains workout information