Comp 2005

Assignment 3

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Group:

Group #8

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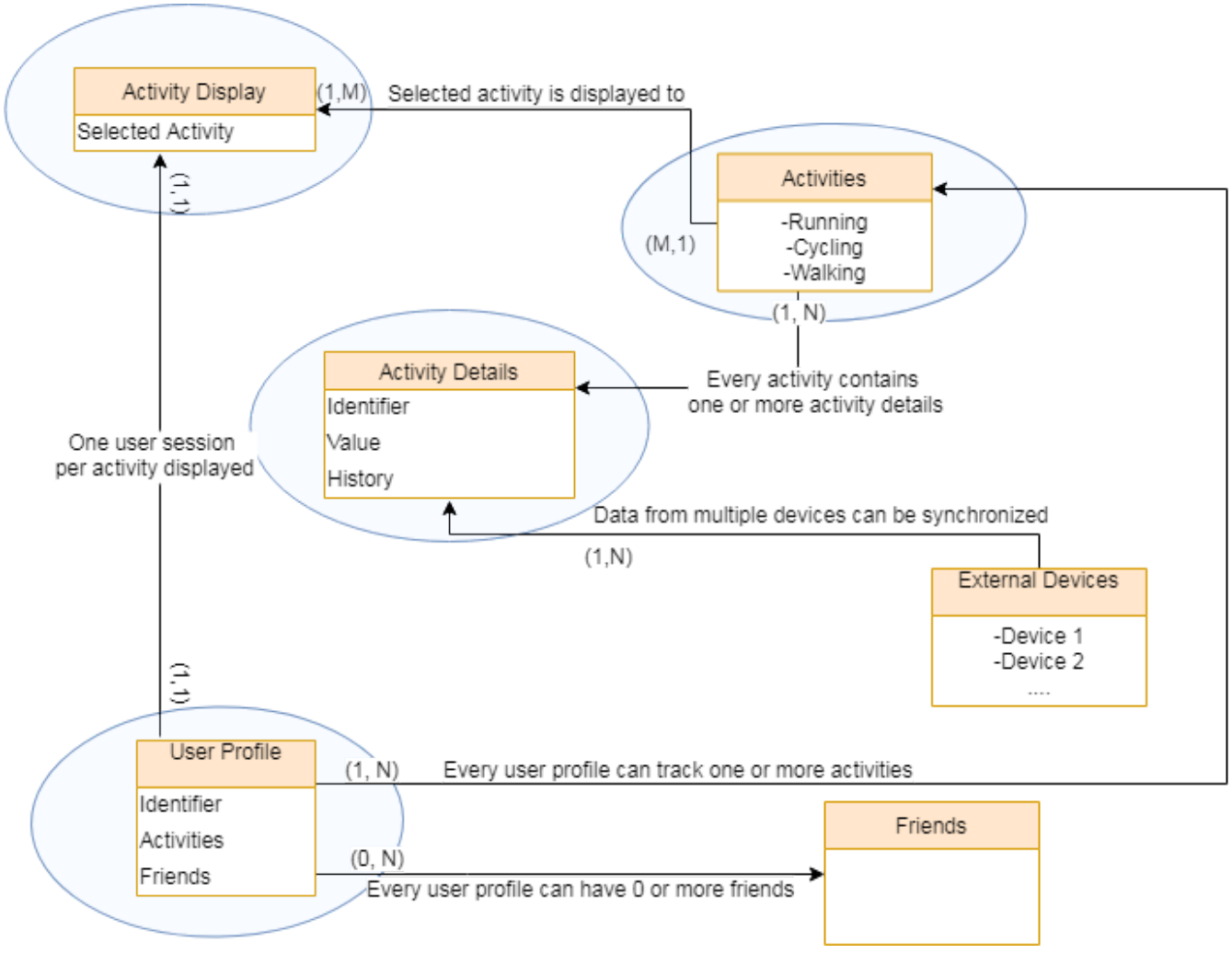
Prioritized Features:

1. Profile creation
2. Data import and storage
3. Viewing activity details and statistics
4. Data calculation

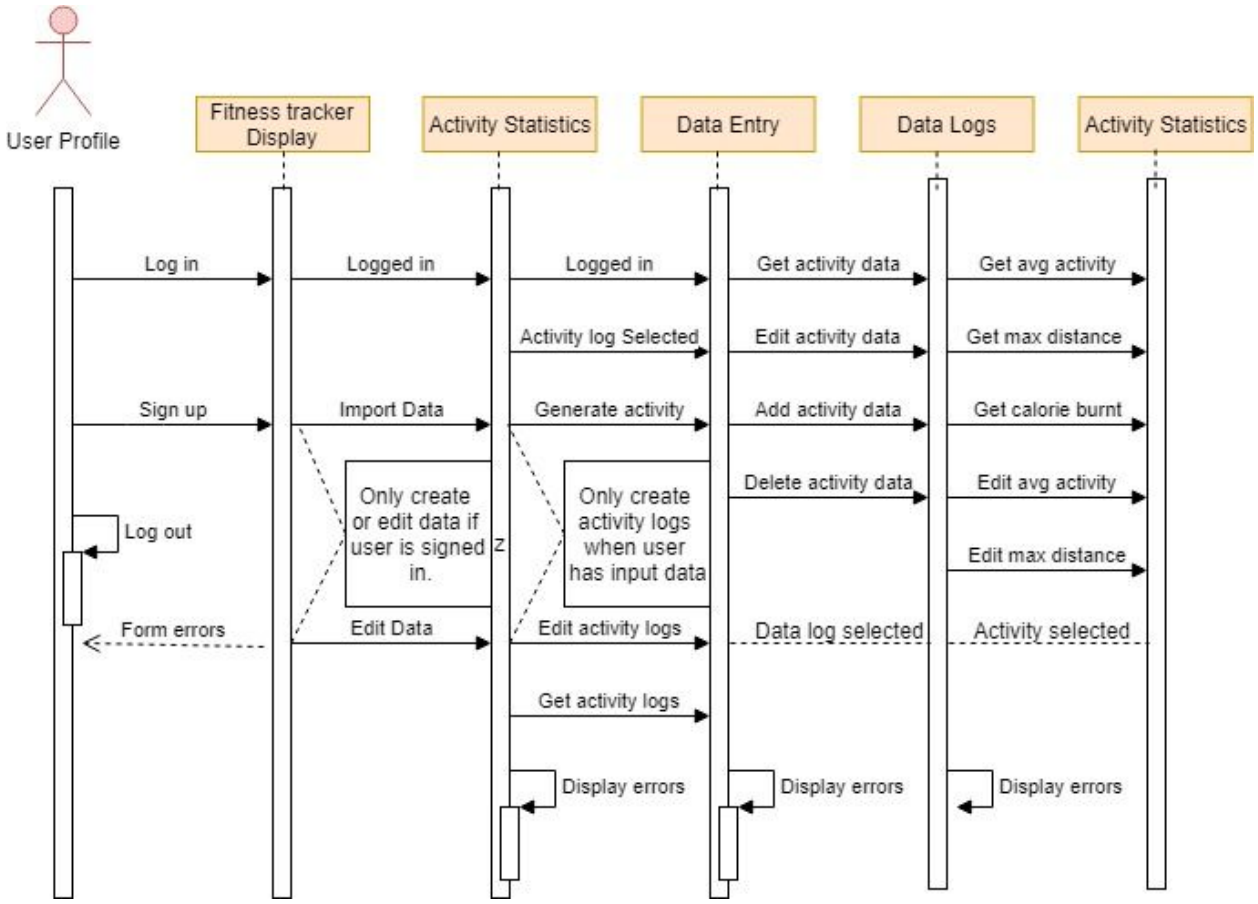
Domain Model:

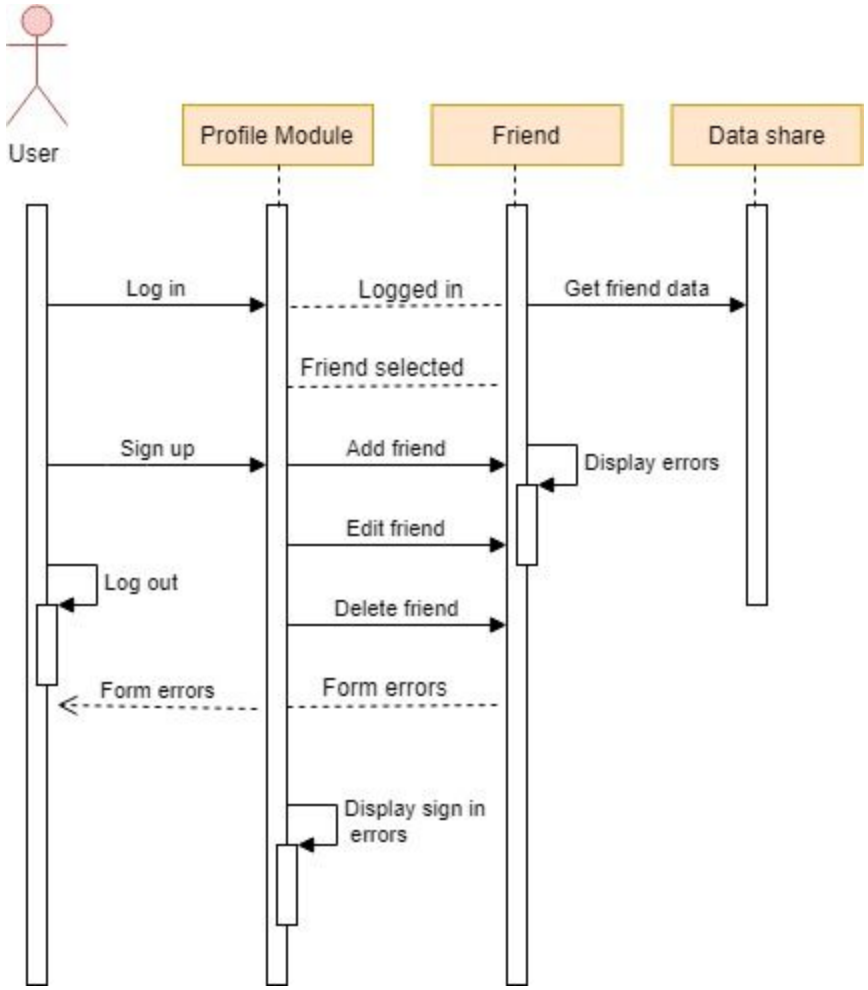


The domain circled, in the above domain model is the domain that we have prioritized. Display is the module that will display the interfaces in the display screen. Display domain is connected with every other domain in this system. If a user wants to create a new profile or sign in, they can go the user profile domain from the display module. User profile module is connected to the Activity Detail module, in the activity detail module the record of each user is stored. The activity

Module is connected to display module and the activity detail module. If a user want to access a record of their activity, the activity modules accesses the accesses the detail from activity detail modules which has detail of each of the users.

Sequence Diagrams:





Architecture for the system:

For the system we created, we have prioritize four features. They are:

1. Profile creation
2. Data import and storage
3. Viewing activity details and statistics
4. Data calculation

Relationships between the features:

Every profile is created using the profile creation feature. The profile of every user has the record of their activity which is store in in the viewing activity details and statistics modules (feature). When a user imports data from a device, the data import and storage module comes into play and the data from the device is stored using the Viewing activity details and statistics module. The data of the user is sorted using the data calculation module.

Significance of the features:

To understand significance of the features we ll use the three Q's of architecture. They are:

Q1). Is it the part of the essence of the system?
Q2). What does it mean?
Q3). How do I do it?

1. Profile Creation: **Q1**, The main function of the system is to be able to create a profile. The profile of the user has record of the activities they have done.
2. Data Import and storage: **Q1 Q2 Q3** Data import and storage is a important function of the system because the system must be able to store the activity record of the users. If a user a has more than one device the system should also be able to sync the data from different device to the user profile. To implement this feature we might have to use different module available in the system.
3. Viewing details and statistics: **Q3** To view the statistics of the activity, the system has to import the data from the module which has stored the record of the activity and then display the information on the display.
4. Data Calculation: **Q3** When user wants to see the statistics of their activity like the longest time of a run or longest distance of a run, the Data Calculation modules come into play.

Key Decisions:

a) We have decided that the profile module deals with a profile and link all the activity of the user. By doing this we don't have to repeat ourselves for storing the activity detail of the user friends. The profile of the user's friend is also under the profile module. When a user wants to view the activity of friend, they can search their friend and look up at the record of the activity. When doing this the profile module is used when the user looks up for their friend. The friend's profile will be linked to the activity detail and statistic module, which will be able to show the activity detail of the friend.

b) The record of every user will be stored by the data import and storage module. We have decided this module will have the responsibility of storing data after the data is imported from a fitness device.

c) The activity module has the type of activity (like jogging, walking, cycling) that our system will keep track of. By keeping a separate module just for the types of activity, we will be define individual data type of each activity.

d) For our system, we have applied Single Responsibility Principle (SRP), each of the modules has a single responsibility. The profile module has the profile of the user which is linked with activity detail and statistic module which has the record of the activity. The data import and storage modules stores the data, and the calculation module will sort the data.