1. Coding Conceptualization :

Time active -

- Data will need to be loaded on to the code

This model will have to collect data to find when you are active.
The data needed is the acceleration and the position to know when the user is moving.

- To collect this data, the accelerometer and the GPS of the phone will need to be used, and will both find when you move and when you are active.

The accelerometer finds when the person is accelerating and decelerating and the GPS finds where you are and when you are moving.
The app finds how long you were active and adds up for how long you were active.

- When you are at rest, not moving, and not accelerating the app will know that you are not moving, and will send a notification letting you know that you are inactive.

When you start moving again, and the acceleration is reasonable, (Reasonable for a human in walking/running/biking, to make sure that the person is not driving, as that is not being active) the app will send you a notification, as well as say on the app, “Congratulations! You are active and contributing to your health goals!”
The app lets you know how long you are active and how long you were active in each hour.
Also, everyday at 12:00 AM the time active will be reset to 0 minutes as a new day is starting

- The app uses the coding convention TimeElapsed to find how long you are active, and while you are active has a counter to store how long you are active.

Also it uses the accelDatetime and positionDatetime to find when you are moving and when you are accelerating

2. Explain the architecture of the app:

- The code actually runs in the app when you open the app and look in the statistics page.

This will show you how long you were active and at what time you were active , and for how long. Also, when the accelerometer senses that you are accelerating, and the GPS senses that you are moving the code will run to find out if you are active and will send the notification.

- The model will stop running this code when it finds out you stop moving and you are inactive.
- The starting and ending points of the code were chosen so that the code only runs when it needs to and stops when the code is not needed.

When you are active the code keeps checking to make sure that you are active, and when you are not active the code stops running
When you are active again, the code will run again. This ensures that you can get an accurate time, and ensures that the code is not running/closed when you are not active.