4 Algorithms and Data Structures

1. Algorithms

We currently do not have or in the future create an algorithm for the program for it does not need or have an algorithm.

1. Data Structures
   1. We currently have a database that has tables. The choice of having tables is due to the limited availability of choices. This choice was used because most data input from user is easier to be stored in a table. It is also easier for the program to take the data and output it to the user. Tables are also flexible since we could add additional rows or columns when needed.

5 User Interface Design and Implementation

5.1 Currently our design of the website as reported in report 1 is being coded in html, php and css. We have added additional information to the webpage so that if the user has any questions about the website could ask and send comments to the administrator. Up till now we have been following what we have intended to create on the website and will continue with the intended plan. We also added additional questions of information about the user so that the program could work more efficient and calculate a better return output to user. The additional questions include their country and ethnicity. We also added an additional option that allows the user to return to home page quickly and view their information. In addition we created a database to also record the client’s ip address and time of date the user has logged in.

We currently have implemented the following items on the webpage:

1. Home
2. Login and registration
3. Input of user’s data
4. Create a graph
5. Output of suggestions of dietary actions, eg. Exercise and diets
6. Logout and manage user information

7 Project Management and Plan of Work

Contribution Breakdown

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Section | Cody | Florian | Jie | Kyle | Jose |
| Interaction Diagrams | 20 | 20 | 20 | 20 | 20 |
| Class Diagrams and Interface Specification | 100 | - | - | - | - |
| System Architecture and System Design |  | 12 | 88 |  |  |
| Algorithms and Data Structures | 20 | 20 | 20 | 20 | 20 |
| User Interface Design and Implementation |  |  | 100 |  |  |
| Design of Tests | 90 | 10 | - | - | - |
| Project Management and Plan of Work |  |  | 100 |  |  |

1. Issues
   1. There was a problem with the php code that did not allow the webpage to access the MySql database - currently we are trying to figure out the problem with the code and to correct the implementation. (still in progress)
   2. The look of the webpage did not look as intended in the first report – we modified the css to make the images and code look as intended (fixed)
   3. The user was not allowed to correctly register – fixed php code that was receiving the input from user (fixed)
2. Project Coordination and Progress Report

The following use cases have been implemented but have not yet been tested.

* 1. Login
  2. createProfile
  3. createMontlyGraph
  4. insertData
  5. deleteData
  6. registerUser
  7. deleteUser
  8. displayTip

We are currently working on the use cases that are included in creating a profile, user’s password, and any cases that are related to creating a graph and to view it. We will also be working on the use cases related to the user’s data in the future implementations.

1. Plan of Work

February 05 - Research on monitoring devices  
February 06 - Website to be started  
February 12 - Statement of Work & Requirement  
February 16 - Start of App development  
February 18 - Functional Requirements Spec & UI  
February 22 - Full Report # 1  
March 1 - Interaction Diagram  
March 8 - Class Diagram and System Architecture  
March 15 - Full Report # 2  
March 16 - Website launch  
March 23 - App for android/apple device to be finished  
March 24 - Start of testing and debugging  
April 2 - Project Demo # 1  
April 6 - Implement new changes to program (if necessary)  
April 13 - Test and debug new implemented changes of program  
April 27 - Full Report

May 1 - Project Demo # 2  
May 3 - Finished Product

\*Currently we are behind schedule about a couple of days but we will make up the few days and follow up to the intended schedule.

1. Breakdown of Responsibilities
   1. Login Jie
   2. createProfile Cody
   3. updateProfile Cody
   4. viewProfile Cody
   5. createMontlyGraph Jose
   6. viewMontlyGraph Jose
   7. insertData Kyle
   8. deleteData Kyle
   9. viewData Kyle
   10. registerUser Florain
   11. deleteUser Florain
   12. addUser Florain
   13. displayTip Jie

Each part created by the respective persons will be checked and tested by each member of the group to ensure the correctness and proper development of the modules and classes. As for coordinating the integration, it will be done by our team captain who will initiate the final process of integration when the classes and modules are completed and tested.

# References

* 1. "Adult Obesity Facts." *Cdc.gov*. Centers for Disease Control and Prevention, 13 Aug. 2012. Web. 08 Oct. 2012. <http://www.cdc.gov/obesity/data/adult.html>.
  2. "Google Code University: Android." *Code.google.com*. Google, n.d. Web. 23 February 2013. <http://code.google.com/edu/android/index.html>.
  3. "Heart Diseases & Disorders." *Hrsonline.org*. Heart Rhythm Society, n.d. Web. 23 Feb. 2013. <http://www.hrsonline.org/Patient‐Resources/Heart‐Diseases‐Disorders>.
  4. "Heart Rate." *Wikipedia*. Wikimedia Foundation, 10 Aug. 2012. Web. 23 Feb. 2013. <http://en.wikipedia.org/wiki/Heart\_rate>.
  5. McGee, Marianne Kolbasuk. "11 Telemedicine Tools Transforming Healthcare." *Informationweek*. InformationWeek, 23 Mar. 2012. Web. 23 Feb. 2013. <http://www.informationweek.com/healthcare/mobile‐wireless/11‐telemedicine‐tools‐transforminghealt/232602982>.
  6. "Wearable Wireless Medical Devices to Top 100 Million Units Annually by 2016, ABI Research." *Wearable Wireless Medical Devices to Top 100 Million Units Annually by 2016, ABI Research*. Business Wire, 17 Aug. 2011. Web. 08 Oct. 2012. <http://www.businesswire.com/news/home/20110817006223/en/Wearable‐Wireless‐Medical‐Devices‐Top‐100‐Million>.
  7. Sun Microsystems, Inc. *Java Look and Feel Design Guidelines*. Mountain View, CA, 1999
  8. “Pedometer” http://en.wikipedia.org/wiki/Pedometer
  9. Health Care Monitoring of Mobile Patients: http://www.ercim.eu/publication/Ercim\_News/enw60/amato.html
  10. Palatini P, Casiglia E, Julius S, Pessina AC. “*High heart rate: a risk factor for cardiovascular death in elderly men*.” Arch Intern Med 1999;159:585–592.
  11. Heart Disease Fact Sheet: http://www.cdc.gov/dhdsp/data\_statistics/fact\_sheets/fs\_heart\_disease.htm