# PROJECT QUALITY PLAN



Health Coach

Phase 3

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| # | Student Name | ID | Responsibilities |
| 1 | Shahad alshowaur | 434201240 | Introduction to the project+ General Constraints+some System and Integration Requirements+ Planned Reviews+ Planned Verification Tests |
| 2 | Ghaliah almutiari | 435200467 | Project Scope+ System and Integration Requirements+ Planned Validation Tests+ Planned Acceptance Tests |
| 3 | Noura alkunifer | 435201094 | Purpose of Quality Plan for project+ Functional Requirements + Quality goals +write , review correct the document + Planned configuration management |

**Instructor Name:**

**Ms. Arwa Al-Amoudi**

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| 1. Introduction to the project |
| In our project we focus in health care that shall reminds us for caring of our body and to reach the highest goals of healthy lifestyle so we can stay healthy.  Our quality plan target is to establish the goals, processes, metrics and responsibilities required to implement effective functions and general constraints for the Health coach project also to ensure we applied a successful software quality program.  In this document we going to discuss the Purpose of Quality Plan for project which is Describe the Purpose of the quality plan. Why we do it? why is it so important? And why we should adhere to it ,project scope , General Constraints which is the non functional requirement , Functional Requirements , System and Integration Requirements , quality goals ,planned reviews , Planned Verification Tests, Planned Validation Tests, Planned Acceptance Tests, Planned configuration management and Project Team Quality Responsibilities . |

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| 2. Purpose of Quality Plan for project |
| The purpose of the Quality Plan is to define and document all activities that helps achieve Quality in the health cache project and collaboration procedures that are required to execute the project successfully within its constraints. These activities are defined on the basis of the quality standards set by the organization delivering the product.  Project Quality Plan is important because it identifies which Quality Standards are relevant to the project and determines how can they be satisfied. It includes the implementation of Quality Events by using various Quality Materials available within the organization. As an output of the various activities, Quality Metrics or Measurements are captured which assist in continuous improvement of Quality thus adding to the inventory of Lessons Learned.  We adhere to quality plan because with out it risk of customer expectation and satisfaction of the results will increase . |

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| 3. Project Scope |
| Health Coach app is a supportive mentor who works with clients to help them feel their best through food and lifestyle changes. Instead of prescribing one diet or way of exercising, Health Coaches is the best app to meet their clients' needs. This application is suitable for all ages, parents follow the lifestyle of their children, and the old man/woman has a supervisor for his health.  Track your eating and exercise via our mobile app. Set goals with your personal coach for the week.  Encouraging, expert personal coaches help you set goals, motivate you and hold you accountable. For kids and teens, this means parents are no longer the food police.  Daily, weekly custom tips and feedback help you achieve goals, get fit, lose weight, have more energy and confidence.  Your dedicated health coach app will give you report about you or your child each week to provide encouragement, review progress and set goals. Receive daily motivation and support by text, phone and email. |

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| 4. General Constraints |

1. the user should be able to learn the most important four functions of the system in 5 minutes.
2. The system shall work in android and iOS operating system .
3. The system shall validate the user name and password in 1ms .
4. the system shall handle 300 transactions per second
5. The system shall save the calories in hard-disk every 30 minutes.
6. The system should not use more than 0.2% of battery power in two hours time.
7. The system shall reserve 3MB from device storage to save information “backups “.
8. The system shall not exceed 0.05%error calculation out and in calories for recorded calories each day .
9. The system shall add calculation of the calories to cloud database Every 30 minutes.
10. Response time must be less than 10 seconds.
11. Total time of system down shall be less than 1day per month .
12. Mean time to change for defects shall be less than 3 days.

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| 5. Functional Requirements |

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| 1. the system shall count user's steps every day . 2. the system shall convert the counted steps to calories. |
| 1. The user shall be able to sign up using unique username , password and email. 2. The user shall be able to login using unique username and password. |
| 1. the system shall generate weekly report about user's achievement realized. |
| 1. The system shall notify the user when he is not drinking enough water. 2. The system shall notify the user when its time to eat. 3. The system shall notify the user when its medicine time. |
| 1. the users shall be able to share their progress via Twitter, Path. 2. the users shall be able to send their progress via Email. |
| 1. The user shall be able to fill the schedule with number of grams he\she gain or lose   of weight |
| 6. System and Integration Requirements |

1. Passwords shall must consist 7 characters length or more and must contain at least one lower-case alphabetical character (A-Z), one upper-case alphabetical character(a-z) and one numerical character(0-9). Which non functional
2. Usernames must be unique and will be assigned to identify a one and only one user, and that happened when new user sign up by checking previous signup users from database and inform the new user if there is existing same username . Which non functional
3. For The system shall not exceed 0.05%error calculation out and in calories for recorded calories each day(non functional requirement number 8),The GPS sensor for counting distance for calories counter will not share location with any other users or even there coach .
4. For The system shall add calculation of the calories to cloud database Every 30 minutes(non functional requirement number 9),Cloud database mustn't be shared ,the single account has it own space .

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| 7. Quality goals |

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| **#** | **Requirement** | **Refine Requirement** | **McCall Quality Factor** |
|  | Functional requirement |  |  |
|  | I want it to count the steps each day  and convert it into calories | the system shall count user's steps every day .  the system shall convert the counted steps to calories. | Correctness  Correctness |
|  | No one can access the application  without account. | The user shall be able to sign up using unique username  , password and email.  The user shall be able to login using unique username  and password. | *Integrity*  *Integrity* |
|  | The Application presents weekly  reports about the achievements  realized during the week | the system shall generate weekly report about  user's achievement realized | Correctness |
|  | It sends notifications to remind  the them to drink, eat or medicine | The system shall notify the user when he is not drinking  enough water.  The system shall notify the user when its time to eat.  The system shall notify the user when its medicine time. | Correctness  Correctness  Correctness |
|  | I can share the progress via twitter,  Path and email. | the users shall be able to share their progress via  Twitter,Path.  the users shall be able to send their progress via Email. | *Interoperability*  Correctness |
|  | I want to find a schedule for  tracking the progress of losing or  gaining weight. | The user shall be able to fill the schedule with number  of grams he\she gain or lose of weight | Correctness |
|  | Non functional requirement(12) |  |  |
|  | I want it easy to be used for  old and young people | the user should be able to learn the most  important four functions of the system in 5 minutes. | *Usability* |
|  | I can use the app in tablets  and smartphones and in App  Store and Google play. | The system shall work in android and iOS  operating system . | *Portability* |
|  | I want to login within short time. | The system shall validate the  user name and password in 1ms . | *Correctness* |
|  | I want the system so fast | the system shall handle 300 transactions per second | *Efficiency* |
|  | If it stop working or anything  happened then it must save  information. | The system shall save the calories in hard-disk  every 30 minutes. | *Efficiency* |
|  | I want it lite and doesn't take  a lot of charge like snap chat | The system should not use more than 0.2% of battery  power in two hours time. | *Efficiency* |
|  | It can contain a lot of history data | The system shall reserve 3MB from device  Hard-disk to save information “backups “. | *Efficiency* |
|  | It calculate the exact total calories  in and out of our body | The system shall not exceed  0.05%error calculation out and in calories for  recorded calories each day . | *Correctness* |
|  | It can work offline then upload what  happened when its online | The system shall add calculation of the calories to  cloud database Every 30 minutes . | *Interoperability* |
|  | It work immediately when I lunch it | Response time must be less than 10 seconds. | *Correctness* |
|  | I want the system available all time | Total time of system down shall be  less than 1day per month . | *Reliability* |
|  | When the system went down I  want it to be fixed fast | Mean time to change for defects shall be less than 3days | *Maintainability* |

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| 8. Planned Reviews |
| Project Reviews  Phase 1: Requirement gathering and Analysis   1. Requirement specification document. 2. Requirement checklist document. 3. Requirement plan document.   Phase 2: Design   1. Detailed Design review 2. Data Base Design review 3. System Design review   Phase 3: Implementation   1. Operational review 2. Schedule review 3. Cost review   Phase 4: Testing   1. Test operating system. 2. Testing calculate calories. 3. Testing battery consumption.   Phase 5: Maintenance   1. Add new functionality to the system. 2. Add night shift function. 3. Add ability to use touch id.   Walkthrough  Phase 1: Requirement gathering and Analysis   1. Requirement specification document: Does each requirement consistent with other requirements in this document? 2. Requirement checklist document: Does each requirement catch the main goal of this document? 3. Requirement plan document: Does each requirement present the system plan?   Phase 2: Design   1. Preliminary design review: Does the system technical progress reviewed? 2. Data Base Design review: Dose the detailed data base reviewed? 3. System Design review: Does the system allocate of requirements to configuration items?   Phase 3: Implementation   1. Operational review: Does the system operation successful? 2. Schedule review: Does it confirm to the time scheduled? 3. Cost review :Does it within the budget?   Phase 4: Testing   1. Testing calculate calories: Does the system calculate the calories every minutes the user use the app? 2. Test battery consuming: dose The system use more than 0.2% of battery power in two hours time? 3. Test operating system: Does the system work in different operating system?   Phase 5: Maintenance   1. Add new functionality to the system: Does the code able to accommodate new module? 2. Add night shift function: Does the code able to add night shift function? 3. Add ability to use touch id: Does the code able to add touch id function? |
| 9. Planned Verification Tests |

1. Test if the system is easy to use: the average time for the users to learn the most important four functions of the system shall be 5 minutes.
2. Test if the system work in different operating system: The system shall work in android and iOS operating system .
3. Test if The system has the ability to validate user’s name and password in 1ms: The system shall validate the user name and password in 1 ms .
4. Test if the system can handle about 300 transactions per second: the system shall handle 300 transactions per second.
5. Test if the system can save the data in hard-disk : The system shall save the calories in hard-disk every 30 minutes.
6. Test how much the system consumed battery power : The system should not use more than 0.2% of battery power in two hours time.
7. Test how much MB the system can reserve in hard-disk: The system shall reserve 3MB from device Hard-disk to save information “backups “.
8. Test how long it takes the system to calculate data : The system shall not exceed 0.05% error calculation out and in calories for recorded calories each day .
9. Test if the system can add the data : The system shall add calculation of the calories to cloud database Every 30 minutes.
10. Test the system response time : Response time must be less than 10 seconds.
11. Test the total time of system breakdowns : Total time of system down shall be less than 1day per month .
12. Test the how long it take of the ability of change : Mean time to change for defects shall be less than 3 days.

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| 10. Planned Validation Tests |

1. The user shall be able to sign up using unique user name , password and email :Test if the user has the ability to sign up using unique username , password and email

2. The user shall be able to fill the schedule with number of grams he\she gain or loss of weight :Test if the user has the ability to fill the schedule of grams he\she gain or loss of weight

3. The system shall work in android and iOS operating system :Test if the system has the ability to work in android and iOS operating system

4. The system shall validate the user name and password in 1ms: Test if the system has the ability to validate the user name and password in 1ms.

5. The users shall be able to share their progress via Twitter and Path. Test if the users have the ability to share their progress via Twitter and Path.

6. The users shall be able to send their progress via Email. Test if the users have the ability to send their progress via Email.

7. The user should be able to learn the most important four functions of the system in 5 minutes. Test if the user has the ability to learn the most important four functions of the system in 5 minutes.

8. The system shall handle 300 transactions per second. Test if the system has the ability to handle 300 transactions per second.

9. The system shall save the calories in hard-disk every 30 minutes. Test if the system has the ability to save the calories in hard-disk every 30 minutes.

10. The system shall not use more than 0.2% of battery power in two hours' time. Test if the system has NOT the ability to use more than 0.2% of battery power in two hours' time.

11. The system shall reserve 3MB from device Hard-disk to save information “backups “.Test if the system has the ability to reserve 3MB from device Hard-disk to save information “backups

12. The system shall not exceed 0.05%error calculation out and in calories for recorded calories each day. Test if the system has NOT the ability to exceed 0.05%error calculation out and in calories for recorded

13. The system shall add calculation of the calories to cloud database Every 30 minutes: Test if the system has the ability to add calculation of the calories to cloud database Every 30 minutes

14. Response time must be less than 10 seconds. Test if the Response time is less than 10 seconds

15. Total time of system down shall be less than 1day per month. : Test if Total time of system down is less than 1day per month.

16. Mean time to change for defects shall be less than 3days. Test if Mean time to change for defects is less than 3days.

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| 11. Planned Acceptance Tests |
| 1. Frist acceptance testing will be after Maintenance phase; given a small project that aims to add new functionality to application, the changes introduced touch some existing code, the customer can try the small project and provide feedback.  2. Second acceptance testing will be after Requirement gathering and Analysis phase;  A document given to the customer, so that she/he needs to submit his/her needs with his/her application and provide feedback. |

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| 12. Planned configuration management. |
| Software Storage  The application will use IBM Spectrum Storage™ as a storage and server. IBM Spectrum Storage™ is a cloud storage enhances the speed and efficiency of storage and simplifies migration to new workloads by:  Simplifying and integrating storage management and data protection across traditional and new applications  Delivering elastic scalability with high performance for analytics, big data, social and mobile  Unifying silos to deliver data without borders with built-in hybrid cloud support  Building on open architectures supporting industry standards including OpenStack and Hadoop  Security and Backups  The system will use NetApp® backup security cloud solutions support the best practice of encrypting tape and disk across a heterogeneous enterprise, for backup and disaster recovery storage risk management. Our solutions include AES-256 encryption, authentication, strong access controls, and crypto-signed logging.  Once data is encrypted, it stays encrypted—allowing you to meet disaster recovery and archival requirements without compromising data security.  Version Control  The application will be using AccuRev SCM is a centralized version control system which uses a client/server model. Communication is performed via TCP/IP using a proprietary protocol. |

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|  | 13. Project Team Quality Responsibilities | | | |
| *Name* | *Role* | *Signature* | *Date* |
| Software Quality team | Norah alkhunifer | configuration management and Quality assurance |  | April 25, 2017 |
| Ghaliah almutiari | Testing engineer  and acceptance test |  | April 25, 2017 |
| Shahad alshowaur | Project manager |  | April 25, 2017 |