**Requirements of Customer**

Functional Requirements

1. All types of users (Admin, Nutritionist, Client) should be able to sign up and login to the system.
2. The user should be able to recover username or password if forgotten.
3. Admin user should be able to add and delete food dictionary, workout dictionary and Food unit.
4. Client user should be able update own profile, add his workout and food consumption activity.
5. Client user should be able to search nutritionist, view nutritionist profile, view blogs by nutritionists, enrol and get appointment of nutritionist, give ratings to the nutritionist and disenroll from a nutritionist.
6. Nutritionist user should be able to update own profile, create own blogs, view appointments of his clients, view client profile, prescribe client, generate client report, disenroll client.
7. Application will calculate BMI based on client’s weight and height.

Non-Functional Requirements

1. The application should load in 3 seconds even though the number of simultaneous users count is greater than 10000.
2. Application should be implemented across iOS and Android Platforms
3. Application should support Android Versions from Android 4.4 (KitKat) to Android 9.0 (Pie)

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| **Function Point – method** |  | | |  | |  |
|  |  | | |  | |  |
| **Category** | **Number** | **Classification** | **Weighting** | | **Row sum** | **Comments** |
| Input | 12 | Just | 3 | | 36 | Login Input |
|  | 6 | Medium | 4 | | 24 | Patient Input |
|  | 1 | Complex | 6 | | 6 | Patient Registration |
| Query | 4 | Just | 3 | | 3 | Patient Registration |
|  | 2 | Medium | 4 | | 32 | Checking Schedule Conflict, Inserting appointment |
|  | 1 | Complex | 6 | | 0 |  |
| External output | 0 | Simple | 4 | | 0 | Appointment Information |
|  | 0 | Medium | 5 | | 0 | Schedule Display for Doctor |
|  | 1 | Complex | 7 | | 7 | Check conflict of schedule |
|  | 4 | Simple | 7 | | 28 | Login Screen |
| Internal Logical | 2 | Medium | 10 | | 20 | Class Models |
| Files | 1 | Complex | 15 | | 15 | Class view Models & UI screens |
| Sum |  |  | E1 | | 90 |  |
| Factors | 1 Integration with other application systems (0-5) | | | | 0 |  |
| (The function point value change by + / - 30%) | 2 Decentralized data, distributed processing (0-5) | | | | 0 |  |
|  | 3 Transaction Rate (0-5) | | | | 1 |  |
|  | 4 processing logic | | | |  |  |
|  | A computational operations (0-10) | | | | 1 |  |
|  | B control procedures (0-5) | | | | 3 |  |
|  | C exceptions (0-10) | | | | 5 |  |
|  | D logic (0-5) | | | | 2 |  |
|  | 5 reusability (0-5) | | | | 4 |  |
|  | 6 database conversions (0-5) | | | | 4 |  |
|  | 7 Adaptability (0-5) | | | | 3 |  |
| Sum of the 7 factors | E2 | | | | 23 |  |
| Impact factor rating = (E2/100) + 0.7 | E3 | | | | 0.93 |  |
| Weighted Function Points: E1 \* E3 |  | | | | 83.7 |  |
| Effort by IBM table (interpolated) | E4 | | | | 48 |  |
| Optimal duration of development (2.5 MM \* ^ s, where s = 0.35 (online systems)) | E5 | | | | 9.691130499 |  |
| Average size of the team (E4/E5) | 4.95 | | | | 4.952982524 |  |

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| **Function Point – method** |  | | |  | |  |
|  |  | | |  | |  |
| **Category** | **Number** | **Classification** | **Weighting** | | **Row sum** | **Comments** |
| Input | 12 | Just | 3 | | 36 | Sign up enrol |
|  | 6 | Medium | 4 | | 24 | Patient Input |
|  | 1 | Complex | 6 | | 6 | Patient Registration |
| Query | 17 | Just | 3 | | 51 | Patient Registration |
|  | 5 | Medium | 4 | | 20 | Checking Schedule Conflict, Inserting appointment |
|  | 1 | Complex | 6 | | 6 |  |
| External output | 0 | Simple | 4 | | 0 | Appointment Information |
|  | 0 | Medium | 5 | | 0 | Schedule Display for Doctor |
|  | 1 | Complex | 7 | | 7 | Check conflict of schedule |
|  | 2 | Simple | 7 | | 14 | Login Screen |
| Internal Logical | 6 | Medium | 10 | | 60 | Class Models |
| Files | 15 | Complex | 15 | | 225 | Class view Models & UI screens |
| Sum |  |  | E1 | | 133 |  |
| Factors | 1 Integration with other application systems (0-5) | | | | 0 |  |
| (The function point value change by + / - 30%) | 2 Decentralized data, distributed processing (0-5) | | | | 0 |  |
|  | 3 Transaction Rate (0-5) | | | | 1 |  |
|  | 4 processing logic | | | |  |  |
|  | A computational operations (0-10) | | | | 1 |  |
|  | B control procedures (0-5) | | | | 0 |  |
|  | C exceptions (0-10) | | | |  |  |
|  | D logic (0-5) | | | |  |  |
|  | 5 reusability (0-5) | | | | 0 |  |
|  | 6 database conversions (0-5) | | | | 0 |  |
|  | 7 Adaptability (0-5) | | | | 2 |  |
| Sum of the 7 factors | E2 | | | | 4 |  |
| Impact factor rating = (E2/100) + 0.7 | E3 | | | | 0.74 |  |
| Weighted Function Points: E1 \* E3 |  | | | | 98.42 |  |
| Effort by IBM table (interpolated) | E4 | | | | 12 |  |
| Optimal duration of development (2.5 MM \* ^ s, where s = 0.35 (online systems)) | E5 | | | | 4.061261982 |  |
| Average size of the team (E4/E5) |  | | | | 2.984915531 |  |

Cost Calculation