Fitness For Geeks

Version: 0.1

Project name	Fitness For Geeks	
Project leader	Julian Nobis	
Responsible	Tim Untersberger, Stefan Waldl	
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Further Product Information

Participating	Stefan Waldl, Tim Untersberger, Julian Nobis
Creation	Initial Extern

Change Listing

Change			Changed Chapters	Description of changes	Author	State
No	**Date**	**Version**				
1	4.11.2017	0.1	all	Initial product creation		
2	07.12.2017	0.1	all	Edited our content based on the review		

Test Listing

The following table shows an overview of all tests – both self-tests as well as tests by independed quality assurance – for the present document.

Date	Tested Version	Notes	Inspector	New Product Status

CONTENT

1 INTRODUCTION

We are three students that attend the HTBLA Leonding and decided to create this website within the scope of the subject “SYP”. Our main goal is to direct the users into the right nutrition choices without forgetting to include workouts, thus resulting in a healthier lifestyle and provide tools to make this possible. The user gives us some basic information about their body like height, weight and so on and we give them their nutrients per day and a list of recipes based on the before given nutrients, which they can choose from.
If the user has an account, he can also see his BMI and BAI on his account page.

Accounts can be easily created with an email and password. The email must be verified via clicking on the link in the email from our website.

The nutrients per day are the result of a combination of their TDEE and workout plan. Workout plans are optional and can be created with a simple table (exercise name, calories burnt) or a vague description of their workout intensity like easy, medium or hard.

We also want to encourage communities, because doing things together is almost always more fun, thus we decided to add user groups, which are basically filtering all posts and recipes based on the tags. (e.g.: a bodybuilding group has the tag bodybuilding and when a user creates a new recipe they can add the tag for better clarification. If someone visits the bodybuilding group, the person can only see content tagged with bodybuilding)

2 INITIAL SITUATION

To start living a healthier life, it is crucial to have a balanced nutrition plan to rely on.

For most people starting is the hardest part of living healthy. People like them then go on sites like: http://www.fitforfun.de, https://www.bodybuilding.com/index.html, https://tdeecalculator.net/ and https://www.iifym.com/tdee-calculator/.
On the sites that we mentioned earlier there are either only recipes or calculators that output raw data which most of the unexperienced users cannot handle.
Our product on the other hand will give the user a combination of the good aspects of both.
There already exist a few websites like: https://www.ichkoche.at/kuhlschrank-kochen#drawers=244442,251280,10390,10909,251376, where the user first enters the ingredients the user has and then finally receives a list of recipes he can choose from. The big difference between our website and websites like mentioned above is that our website will ask for the user's height, weight and so on (more information can be found under "Project Objectives and System Concepts") and gets the TDEE (the total calories of the optional fitness plan are included), missing nutrients and a list of recipes which are either from our database or approved recipes from our users.

We did not find a single website that combines all the good things from a nutrient tracker, exercise- and recipe-manager.

[Link of an Austrian study that shows that obesity is very present]
„Zwölf Prozent der Österreicher sind krankhaft übergewichtig. Laut OECD-Daten leiden 57% der Männer und 43% der Frauen an Fettsucht (Adipositas).
Jeder zweite Mensch in den 33 OECD Saaten ist übergewichtig, jeder sechste gilt als fettleibig."
-http://orf.at/stories/2016161/2016156/

3 GENERAL CONDITIONS AND CONSTRAINTS

We want to realize our application with a website, because we are more experienced with web development and maintaining a website is simpler than a bunch of different applications with different native systems.

Obviously because we want an easy and fast way to manage our recipes, we decided to use a database which is hosted on our webserver (possible scalability)

Our application allows user based recipes, which can be seen by anyone visiting the website and rated/reported by verified accounts. After a lot of reports the reported recipe gets reviewed by a moderator/owner and either removed or corrected.

The owner of a custom recipe can receive an email when a new comment is created under his recipe. (Can be toggled via a checkbox) The user will always see new notifications about his recipe in his account page.

Moderators are currently planned for when we have too many viewers to handle it ourselves.

As for the webserver mentioned above, we chose a Raspberry Pi as our server, because of its low cost (e.g.: electricity) and we expect a low number of users. Since our application is a website we can easily upgrade our infrastructure to a dedicated hosted server (e.g.: amazon).

Getting a premium version of our product enables the user to enjoy our content without any disturbance from our advertisements.

For the alpha version of our website, we decide to keep the “auto-generated Fitness plan” a free feature.

4 PROJECT OBJECTIVES AND SYSTEM CONCEPTS

We want to provide the user with a calculator that asks the user for their height, weight, age, gender as well as some optional information like bodyfat percentage, hip circumference in meter or workout. The workout can either be a vague description like easy, medium, hard or a table with specific information about repetition, exercise and calories burnt (the information can either be obtained from our database or entered by the user him- or herself). We are going to implement both the metric and imperial systems. The calculator will then return the BMI, BAI and TDEE, then the return values will get saved on the account if the user is logged in. We are going to provide our recipes to everyone visiting the site, but filtering the list is only possible if the user is logged in.

As for the account, it will have the features mentioned above like saving the BMI, BAI and TDEE. The user will also be able to specify their favourite recipes and look at a list of them on their account. If the person that is owning the account does not want to share some specific information, they will be able to hide it from everyone else.

Another feature we want to implement are user groups, that provide grouping of the content (filtering by tags) and enable social interactions based on interest, by giving the members of the group an option to create posts, comment and rate them (the social part is low priority).

5 OPPORTUNITIES AND RISKS

One of the most important opportunities is that we did not find a single application that combined a fitness calculator with social aspects such as sharing/rating recipes and creating custom groups oriented around interest. Based on the previously shared information we can determine that we most certainly have no competition at the moment.

We can also utilise the supplement market by asking for a sponsorship in exchange for advertising the products of the supplement on our website. Some possible targets would be: https://www.bulkpowders.at/produktreihe/pro-series.html or http://www.loltyler1.com/category/supplements

A concerning risk that we must take is a lack of users, since we heavily rely on having an interactive community, because we want our database to be community driven as much as possible. We can try to counteract this by investing a lot into advertisements.

Another important risk is not getting enough data for our database. One of the key features is being able to choose from a list of recipes and being able to build their own meal plan around them, but if there are no recipes the user will not be able to do this resulting in a loss of uniqueness.

One of the less important risks is a deletion of our whole database which can be easily ignored by maintaining a consistent backup routine.

6 PLANNING

The project leader is Julian Nobis, because he is an overall very responsible person and easily manages to keep everything in check. Stefan Waldl and Tim Untersberger are the lead developers of the project.
We are currently aiming to start our project at the end of December or beginning of January.
Our goal is to complete the project or at least a useable alpha version around mid may. If we only manage to complete an alpha version of our product we will still be able to publish the application. The development can then be continued in a user driven state. Some examples for user driven applications https://playbattlegrounds.com/main.pu. The link is to a website of a game called PlayerUnknown's Battlegrounds (or in short PUBG). The game got released in a very early alpha version on steam (http://store.steampowered.com/) for an amount of around 30€. It is the most played game on the site (based on the information from the site http://steamcharts.com/ on the 12th of December 2017) event though it is still in its alpha version. We believe we can also utilise user driven development, because as mentioned before the community is important for our application and user driven development is (obviously) focused around users.
We will need an amount of 3 software developers and a dedicated server (more information about the server can be found under "General Conditions and Constraints").
Prototyping will be done a lot in our development, so the first prototype with only a few features is aimed to be created in early February. The biggest amount of time will be spent on optimizing all our interactive content (e.g.: the recipe list).

Milestone	Date
Planned the structure of our development environment	10.02.2018
The base for our APIs and databases is finished	20.02.2018
The basic structure of the website is finished	10.03.2018
First prototype finished	15.03.2018
Implemented the calculator	22.03.2018
Second prototype finished	24.03.2018
Implemented the recipe system	10.04.2018
Accounts can be created and configured	17.04.2018
Tags can be added and are filterable	01.05.2018
First version released	20.05.2018

7 LIST OF ABBREVIATIONS

Abbreviation	Explanation
TDEE	Total Daily Energy Expenditure
BMI	Body Mass Index
BAI	Body Adiposity Index
API	Application programming interface

8 LIST OF LITERATURE

http://orf.at/stories/2016161/2016156/
https://en.wikipedia.org/wiki/Nutrition
http://www.fitforfun.de
https://www.bodybuilding.com/index.html
https://tdeecalculator.net/
https://www.iifym.com/tdee-calculator/
https://www.ichkoche.at/kuhlschrank-kochen#drawers=244442,251280,10390,10909,251376
https://www.bulkpowders.at/produktreihe/pro-series.html
http://www.loltyler1.com/category/supplements
https://playbattlegrounds.com/main.pu
http://store.steampowered.com/
http://steamcharts.com/

9 LIST OF FIGURES

LIST OF FIGURES

Consideration of the Project Proposal

Affected products:

- Project Proposal
- Project Manual
- Project Plan

Description:
The information about »Initial Situation, existing framework conditions, project targets, system conception and »Economic Efficiency contained in the »Project Proposal have to be considered in the »Project Manual and in the »Project Plan.

Preparing the first Project Progress Decision

Affected products:

- Project Proposal
- Project Progress Decision

Description:
The project ideas and realization proposals presented in the »Project Proposal have to be weighted in a decision process that is outside of the V-Modell. The decision that is made has to be laid down in a »Project Progress Decision.

Project Proposal and Requirements Specification

Affected products:

- Requirements Specification
- Project Proposal

Description:
In the product »Requirements Specification or Requirements Specification Overall Project, the information from the »Project Proposal concerning framework conditions, system idea and realization plan have to be taken into account.