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# Analysis:

## Introduction:

Annette Lillico is a Wellness Advocate for dōTERRA and co-founder of Oōplah, Mrs. Lillico will be my end user and client for this project. I will be continuously communicating with her as this it is important to make sure the application is being built the way that she wants it. The existing system is a website called Oōplah, it is an essential oils, lifestyle and balance company.

The problem is that new users who are introduced to dōTERRA and Oōplah will not know much about how the oils work and how they go together. Mrs. Lillico would like a recipe generator. A program which her users can enter what oils they have, and then a result showing a possible recipe and suggesting other oils that blend well with their current ones. She would also like them to be able to search for oils they wish to know more about, with descriptions and benefits for each oil. Mrs. Lillico would then like it to push the users to her dōTERRA website where they can actually purchase the oils that were suggested. This way she can promote and sell more products.

Mrs. Lillico’s current website:

A screenshot of a computer screen

Description automatically generated

## Project Idea:

A picture containing indoor, table

Description automatically generatedThe project concept is a web-based tool for Mrs. Lillico’s essential oils business that enables her users to find recipes based on the oils they have. Users will be prompted to enter the oils that they have, once all the oils have been input, a result will show what oils blend well with the one(s) they have entered. It will then suggest more oils that blend well with the ones input by the user, and then prompt them to purchase these oils by directing them to my end user’s current website where she can sell them.

## Research:

Oōplah is a new business in the health and wellness market. The owners of Oōplah work for a company called Doterra which they are Wellness advocates for. Doterra is a multi-level marketing company that sells essential oils and other related products. The owners sell dōTERRA products and gain a certain percentage of the sales usually around 20% in the first 60 days and then between 2% and 7% after that. Oōplah is a method of educating, advertising and informing new and existing customers about their products.

A screenshot of a cell phone

Description automatically generated

### Competitor Research:

Oōplah’s main competitors are the other wellness advocates, as they all are competing for the same customers especially within a local scope. An advantage that Oōplah has over its competitors is that it is an online service. This means that they can reach more people and sell more products. After looking online, and I couldn’t find any other websites offering the same service so Oōplah is unique. dōTERRA’s main competitors are Nu Skin Enterprise and Young Living. Both of these companies operate in a similar style to dōTERRA, however dōTERRA has a bigger presence in the UK.

A screenshot of a cell phone

Description automatically generated

A screenshot of a social media post

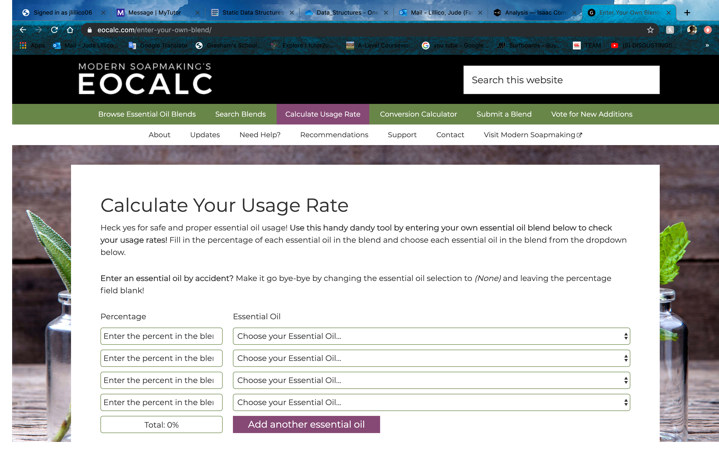
Description automatically generated

### Market Research:

I have researched whether there was already a recipe generator for essential oils out there on the internet. After scouring the internet, I couldn't find one. The majority of the websites that I found were either asking you to pay or create your own product to buy, or just long lists of recipes for essential oils. This is one of the reasons why this application is needed by my client as the alternatives are monotonous and take time. This is a good thing as it means that my project will be unique. None of them are personalised or bespoke to your situation. This is why this application is so special, as it is tailored specifically for the user’s circumstance.

After searching for “essential oils generator” and “essential oils recipes”, I have found no website that offers you to search for recipes or suggests other blends. Even dōTERRA don’t offer this service, which is why this application will be extremely useful to my client’s users and dōTERRA members.

Here are some examples of which websites were returned after those searches:

A screenshot of a computer screen

Description automatically generated

This is the first search that is shown, a website that calculates the usage rates of your oils. Nothing to do with generating or searching for recipes.

This is an article page that just lists recipes with no search functionality, not useful for recipe generating or suggestions.

## Interviews:

To further understand the business and any further issues I conducted a series of interviews with my client Mrs. Lillico:

Date of interview - 014/08/2019

**Can you describe your business Oōplah?**

“We are a Health and Wellness company that provides information, education and an easier way to access dōTERRA products. Founded by myself and Marie, we realised that there wasn’t a fresh, online, modern presence for any of the UK wellness advocates. We are looking to build a strong team and be the leaders of dōTERRA in the UK.”

**What is your role within dōTERRA and how does this link with Oōplah?**

I am a Wellness Advocate for dōTERRA, which means I am an ambassador for their products and educate & empower people to live a healthier lifestyle using natural solutions. Oōplah is my own company which I am using to promote the products, making it easier for people to sign up with me and offering education, resources and a community for anyone joining with Oōplah. As there are many other wellness advocates, I wanted to offer more than the just “get your oils & go attitude” By offering these things, hopefully more people will choose to sign up with me

**Why are you in this type of business?**

“We both have a passion for healthier living and providing a better quality of life using natural solutions.”

**What is your mission statement?**

“To help women become the best versions of themselves by using natural solutions to improve sleep, energy and wellness.”

**How do you generate profits?**

“Our profits come from our customers signing up to dōTERRA, we receive 20% on everything they purchase in the first 60 days of sign up. Then it is between 2% and 7% depending on the volume of your team.”

**What happens to the profit you make?**

“At the moment, all profits made so far have been reinvested into Oōplah. As living and sharing the oils and products is part of how we grow our business.”

**Who are your competitors?**

“Our main competitors are other Wellness Advocates for dōTERRA. As well as Young Living which is another Essential Oil company that operates in a similar manner to dōTERRA.”

**What is your target market?**

“Our target market really is women aged in their 20’s to 60’s, however it can appeal to anyone interested in looking to find natural solutions to everyday health concerns.”

**What does a typical customer look like?**

“Our typical customer is a middle-aged woman, often having issues with sleep, energy and menopause or looking to reduce their toxic load within their homes.”

**How do you promote your business?**

“We are currently creating an online website to help promote healthy living and wellness as well as making it easy for customers to enrol with us. At the moment we are using social media platforms such as Instagram and Facebook to introduce people to Ooplah.”

**What are your biggest threats?**

“Currently we haven’t encountered any threats, however we are yet to see how Brexit might affect us.”

**What are your biggest issues when running this business?**

“At present, it’s finding people beyond our social circle and local community to enrol with us. Oōplah is about empowering and educating our customers, currently we don’t have an application in place to achieve this.”

**What prompted your desire for this application idea?**

" Setting up a new business (Oōplah), we wanted to offer something unique and special to our team and customers, that other companies do not have. It will be a way to promote and sell more of our products. "

**Will it be easy to use?**

" It needs to be straightforward and intuitive, a simple yet elegant design that fits nicely with our brand. "

**Date of interview - 21/09/2019**

**What do you want this application to do?**

" I would like my customers to be able to type in an oil or two that they have, and then the application can then generate a blend of oils for them and suggest what other oils would work with what they have. So, if they put in Peppermint it could then suggest it mixes well with Lemon and Lavender so that it creates mixes, but then it also has to be able to tell them the properties of the oils that it has just suggested. It has to include the benefits of each blend."

**What is a blend?**

“A blend of oils is used for emotional or physical support, it is mixture of oils that can be used topically, aromatically or internally.”

**What do you mean by topically, aromatically and internally?**

“Topically is where the oil is applied to the skin, usually diluted with a carrier oil such as fractionated coconut oil. Aromatically is when the oil is used in a diffuse or inhaled from your hands. Some oils from dōTERRA are deemed safe to take and ingest internally.”

**Who will be the users of the application?**

" Initially it will be anybody using my website, if it is a brilliant application then there is potential for it to be sold to other companies or directly to other dōTERRA wellness advocates. "

**What is the purpose of the application?**

" What I would like it really to do is once it has generated a recipe, it can push the client to purchase the oils that it has suggested go with the oils they have already put in. It needs to be able to suggest other oils, to suggest what else goes with those ingredients. It needs to be a method of people seeing what other oils go with what they've got, which will then drive them to purchase those other oils. "

## Requirements:

### Application Requirements:

* The user is able to login with their details
* Search and select the oils
* Display benefits
* Display companion oils
* Suggest oils to create a blend
* Select favourite oils and blends
* Save favourite oils and blends
* View and retrieve favourites
* Deselect favourites
* Click link to purchase from Doterra

### Gherkin Requirements:

I have decided to use Gherkin to capture my requirements, it is an easy and simple way to define what you’re trying to test and create. Gherkin is a Domain Specific Language for writing acceptance criteria that has five main statements:

1. **Scenario** — a label for the behaviour you’re going to describe
2. **Given** — the beginning state of the scenario
3. **When** — a specific action that the user takes
4. **Then** — a testable outcome, usually caused by the action **When**
5. **And** — this continues any of the other three operators

These statements describe all of the actions that a user must take to perform a task and the result of those actions.

**LOGIN**:

**Feature**: Login to application  
**Background**:

**Given** I am registered user  
   **And** my account is activated

**Scenario Outline**: Successful login  
   **Given** I am on login page  
   **When** I fill "login" with <login>  
   **And** I fill "password" with <correct-password>       
   **And** I click "Login" button  
   **Then** I am directed to the home page

**Examples:**  
   | login  | correct-password |  
   | Lukasz | Gh3rk1n          |  
   | Arek   | Cucumb3r         |

**Scenario Outline**: Unsuccessful login  
**Given** I am on login page  
   **When** I fill "login" with <login>  
   **And** I fill "password" with <incorrect-password>       
   **And** click "Login" button  
   **Then** I am be informed about unsuccessful login

**Examples**:  
   | login    | incorrect-password |  
   | Lukasz   | Gherkin            |  
   | Arek     | Cucumber           |

**Scenario**: Unauthorized entry  
   Given I am not logged in  
   When I try to go Dashboard page  
   Then I am redirected to login page

**Scenario Outline**: Log out

**Given** I am logged in

**And** I am a valid user

**And** I want to log out

**Then** I click a “Log out” button in top corner of the application

**And** I am redirected to the home page and option to log in again

**Search and Select Oils:**

**Feature**: Finding and selecting oils

**Background**: I am a registered user and logged-in

**Scenario Outline**: Successful search

**Given** I am on search page  
   **When** I fill type an oil <oil>  
   **And** I click "`Search" button  
   **Then** I see a list of oils, limited to the first 10 results

**Example**:

| “Basil” is entered |

| search is done for “Basil” |

|list is displayed with all search results|

**Scenario Outline**: Un Successful search

**Given** I am on search page  
   **When** I type in an oil <oil>  
   **And** I click "`Search" button  
   **Then** I see recommendations list

**Example**:

| “Dog” is entered |

| search is done for “Dog” |

|A message is displayed with error message and a list of recommended oils |

**Feature**: View more oils

**Background**: I have searched for oils and have a list available

**Scenario Outline**: Find Next 10 Oils

**Given** I am on search page

**And** there are more oils in the list yet to be displayed  
   **When** I click “>”  
   **Then** I see the next 10 oils in the list

**Example**:

| “oil” is entered |

| search is done for “oil” |

|list is shown with all the oils in the database, only first 10 displayed |

| “>” button is clicked |

|next 10 oils are displayed |

**Scenario Outline**: Find Previous 10 Oils

**Given** I am on search page

**And** there are more than 10 oils

**And** I can see the 2nd or further page of results  
   **When** I click “<”  
   **Then** I see the previous 10 oils in the list

**Example:**

| “oil” is entered |

| search is done for “oil” |

|list is shown with all the oils in the database, only first 10 displayed |

| “>” button is clicked |

|next 10 oils are displayed |

| I want to go back to the previous 10 |

| “<” button is clicked |

| previous 10 oils are displayed |

**Scenario Outline**: Fewer than 11 oils

**Given** I am on search page

**And** there are fewer than 11 oils  
   **Then** I do not see the next or previous button

**Display Benefits:**

**Feature**: Reading the benefits of the oils

**Background**: I have found and selected an oil

**Scenario Outline**: Information in displayed

**Given** I have found an oil  
   **And** I click on the oil  
   **Then**I see all the information on the oil

**Example**:

| “Arborvitae” is clicked |

| Information loads |

| Benefits are displayed |

**Scenario Outline**: Information fails to display

**Given** I have found an oil  
  **And** I click on the oil  
**Then** an error message is shown

**Example**:

| “Arborvitae” is clicked |

| Information fails to load |

| “Sorry no information available” |

**Display Companion Oils:**

**Feature**: Reading the benefits of the oils

**Background**: I have found and selected an oil

**Scenario Outline**: Companion oils displayed

**Given** I have found an oil  
**And** I click on the oil  
   **Then** I see all the information on the oil

**And** I click to see companion oils

**Example**:

| “Arborvitae” is clicked |

| Information loads |

| Benefits are displayed |

| “Basil”, “Lemon” and “Bergamot” are shown under the title “Companion Oils” |

**Scenario Outline**: Companion oils are not displayed

**Given** I have found an oil  
  **And** I click on the oil  
   **Then** I see all the information on the oil

**And** I click to see companion oils

**Then** no oils are listed

**And** error message is displayed

**Example**:

| “Arborvitae” is clicked |

| Information loads |

| Benefits are displayed |

| No list of companion oils is shown|

| “No information available” is displayed instead |

**Select Favourite Oils:**

**Feature**: User saves their favourite oils

**Background**: I have found an oil that I want to save

**Scenario Outline**: Favourite oils are selected

**Given** I am logged in

**And** I am a valid user

**And** I have found an oil  
 **And** I click on the oil  
  **Then** I want to save that oil to view at a later date

**And** I click on the “Favourite” button, could be a heart symbol or “Save”

**Then** that oil is saved to the user’s favourites database

**Example**:

| “Arborvitae” is clicked |

| Information loads |

| I want to save it, so I don’t have to search for it every-time |

| Favourite or Save button is clicked and it is added to favourite

**Scenario Outline**: Want to de-select a favourite

**Given** I am logged in

**And** I am a valid user

**And** I have clicked on my “Favourites” to view them in a list  
  **And** I find the oil that I want to de-select  
  **Then** I click on either a heart. Symbol or “Un-save” button

**And** the oil is removed from the favourite list

**Example:**

| The user clicks on their favourites list|

| They find the oil they want to remove, “Basil” |

| “Un-save” button is clicked |

| Oils is removed from their favourites |

**Purchasing from Doterra:**

**Feature**: Buying doterra products

**Background**: Found a product that I want to buy

**Scenario Outline**: Clicking link to buy product

**Given** I am logged in

**And** I am a valid user

**And** I have found a product to buy  
 **And** I click on the link  
  **Then** directed to the doterra website

**Example**:

| “Lavender” product link is clicked |

| Doterra page loads |

| Correct product is displayed |

**Feature**: Link to buy fails

**Background**: Found a product that I want to buy

**Scenario Outline**: Link to buy product fails

**Given** I am logged in

**And** I am a valid user

**And** I have found a product to buy  
**And** I click on the link  
 **Then** error message is displayed

**Example**:

| “Lavender” product link is clicked |

| Doterra page fails to load |

| “Page failed to load” error message is displayed |

## Objectives:

From analysing the interviews conducted along with the Gherkin requirements I designed, I have created a list of objectives:

Objective 1: Create a database

* I need a database to store the information I need regarding the oils and all the respective information involved.

Objective 2: Create tables within the database

* I need separate tables for the Oils, Recipes and Quantities. These tables will hold all the information the user will eventually query through the web page interface.

Objective 4: Link the tables

* The tables need to be linked in order for them to be queried properly. Oils needs to be linked to Quantities then Quantities needs to be linked to Recipes. As you cannot have a many to many relationship between tables.

Objective 5: Design a simple but elegant webpage

* The webpage must fit with the Ooplah brand and not be too complicated for the users to comprehend.

Objective 6: Create a connection between the database and the webserver

* A link must be made in order for the webserver to retrieve the information

Objective 7:

* The users must be able to search for an oil and then the benefits must be displayed along with suggested recipes including the oil that was searched.

Objective 8:

* Once anything has been searched, links to purchase the displayed oils or recipes must be available for the users to click on.

## Proposed Solution:

I plan to use MySQL Workbench to design and create my tables using Structured Query Language (SQL), this is where all the information about the oils will be stored and collected. I will write my queries in here to link my tables, test and manipulate my data. I’m using PyCharm Community Edition 2019.1 to create my webserver and HTML page. This is where I will write and

# Design

## GUI Design:

I needed to design a webpage that was interactive with the users and fir with the Oōplah brand image, to do this I used Adobe XD, here is the first prototype:

A screenshot of a cell phone

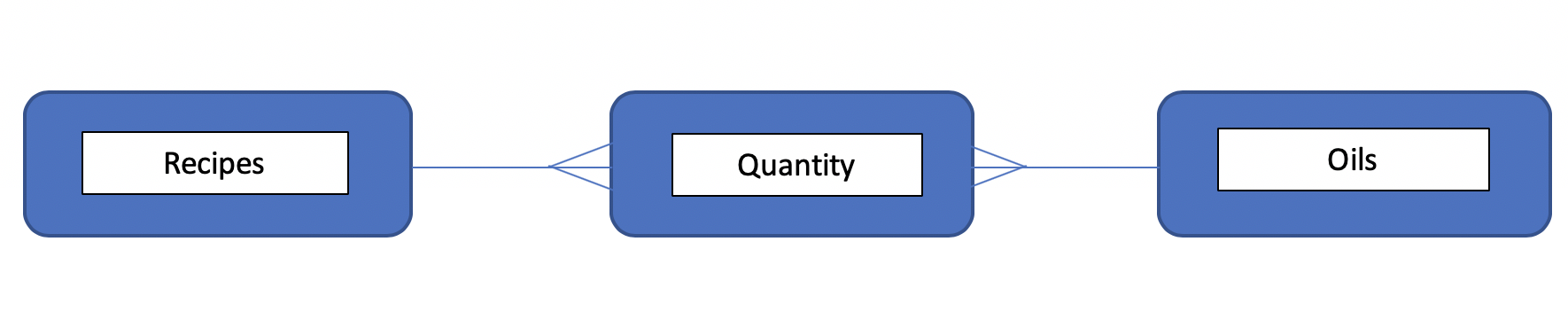
Description automatically generated

After speaking with Mrs. Lillico, she suggested a more narrow design where the boxes weren’t so compressed. This was the result:

A screenshot of a cell phone

Description automatically generated

## ERD’s

Here is a Entity Relationship Diagrams showing the links between the tables within my database.

## Data Dictionary’s:

These are the data dictionary’s I have created to display the data types, identification of the keys and sample data of each table within my database.

|  |  |
| --- | --- |
| **Table Name** | Oils |
| **Primary Key** | Oil\_id |
| **Foreign Keys** | N/A |  |  |
| **Data Item** | **Data Type** | **Validation** | **Sample Data** |
| Oil\_id | Integer | Not null | 1 |
| Oil\_name | VARCHAR | Not null | Arborvitae |
| Description | VARCHAR | Not null | Arborvitae comes from… |
| Oil\_Benefits | VARCHAR | Not null | Clear, healthy skin |
| Oil\_Uses | VARCHAR | Not null | Add a few drops to a spray bottle… |

Oils Table: