

DM565 Innovation Project

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1 Introduction

This report concerns the innovation project in the Formal Languages and Data Processing course. The task of this project is to find an idea for a product involving some type of open data, and then evaluate the this idea as a basis for a startup in a structured manner with the business model canvas. Finally we need to construct a prototype showing the idea in practice.

2 Idea Description

The basis of the idea is to web scrape recipes of different sites, to create a database of various recipes and the ingredients of these recipes. This database of recipes and ingredients will then be paired with the cost of these ingredients included in the recipe. This will enable us to show an estimate of the cost of making the recipe. The cost of the different ingredients can be found using the public product suggestion API made by the retail company Salling. This API references the prices on the `bilkatogo.dk` website. Another resource for current pricing information is from the `etilbudsavisen.dk` API, which shows the current offers of local chains. Prices are also available on some pages that do not have any APIs. Here is another place that we may need to use web scraping. This price information can be used to let the users query recipes based on their specific budgets. Another way for the product to utilize the price information, is that the user can input their current owned ingredients, and get suggestions on recipes of which the user is only missing a few ingredients to be able to make. This can help combat the waste of food.

3 Business Model Canvas

For evaluating our idea the business model canvas will be used. The business model canvas is a template for systematically documenting the business model of an existing business or prospect startup. The business model canvas focuses on four different key areas of a building a sustainable business:

1. Infrastructure
2. Offering
3. Customers
4. Finances

3.1 Offering

The offering is the our value proposition. The value proposition is the services that our product provides. The value proposition is what sets the product apart from the competition. To answer what our value proposition we must answer some questions:

- What value we deliver to the customer?

The value which we provide to the customer, is to give the ability to view prices of items that are in a given recipe, this will also present the total cost of the recipe to the customer. The product will also provide value in enabling the customer to submit their own recipes, to share with other customers. Given that we have different recipes with price data, we can also provide the users with options for a number of recipes given different price points.

- Which problem do we solve for the customer?

The problem we solve for the customer is the issue of estimating the cost of a given recipe. Another problem, which we could solve for the customer is the issue of finding a recipe for which the user already has the ingredients (or some subset of ingredients). Solving this problem for the customer can also contribute to less wasted food.

- What bundles of products and services are we offering to each Customer Segment?

It clear that different services can cater to different customer segments. Eg. more cost-conscious consumers may be drawn to the feature of a total cost estimate of a given recipe.

3.2 Infrastructure

3.2.1 Key Activities

The key activities, are the most important activities for executing our value proposition. To provide value for our customers we examine which key activities our value proposition requires. Our key activities are:

1. To provide value in terms of offering a price estimate on recipes, we first and foremost must establish a system, which handles recipes and the ingredients of these recipes. The ingredients of the different recipes must be linked with prices of products.
2. We must provide a way of presenting the recipes to the user in appealing way.
3. Providing ways for the customer to participate in a community, thus engaging the customer and pushing them to share recipes and thus provide value for other customers.

3.2.2 Key Resources

Key resources are the resources, which our value propositions, distribution channels, customer relationships and revenue streams require. One of our key resources is the data generated by the customers, when they submit recipes. Another key resource is the public API provided by Salling, which aides in producing the prices of individual ingredients. Active users is also a key resource, in

that they bring in advertisement revenue. Thus it is important to keep a good relation to customers, such that they come back for more recipes.

3.2.3 Key Partners

A key partner is Salling, which provides pricing data from their open API. This pricing data is hard to source from other places, thus they are an integral partner to our business. A key supplier is the hosting service, which delivers hosting for our website. A hosting service should provide a reliable service, such that we can guarantee availability to our customers. Another key partner is various search engines (although mostly Google), this is of utmost importance, since the vast majority of site visits will come from people searching for a specific recipe. Thus optimizing our service for discoverability (Search Engine Optimization) is very important in acquiring new consumers.

3.3 Customers

3.3.1 Customer Relationships

We must also examine the relationship with our customers.

3.3.2 Customer Segments

3.3.3 Channels

3.4 Finances

4 Prototyping