

TALLINNA TEHNIKAÜLIKOOL
School of Information Technologies

Web applications with C# Project
Minimizing Food Waste

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Project Description

The idea behind the project is to create a system, that is flexible and allows people to minimize amount of food being thrown out every day. Some figures first – according to the recent research, in Estonia, 167000 tons of food waste is generated annually, of which 84000 tons is wasted food, the total value of wasted food is estimated 164 million euros per year.

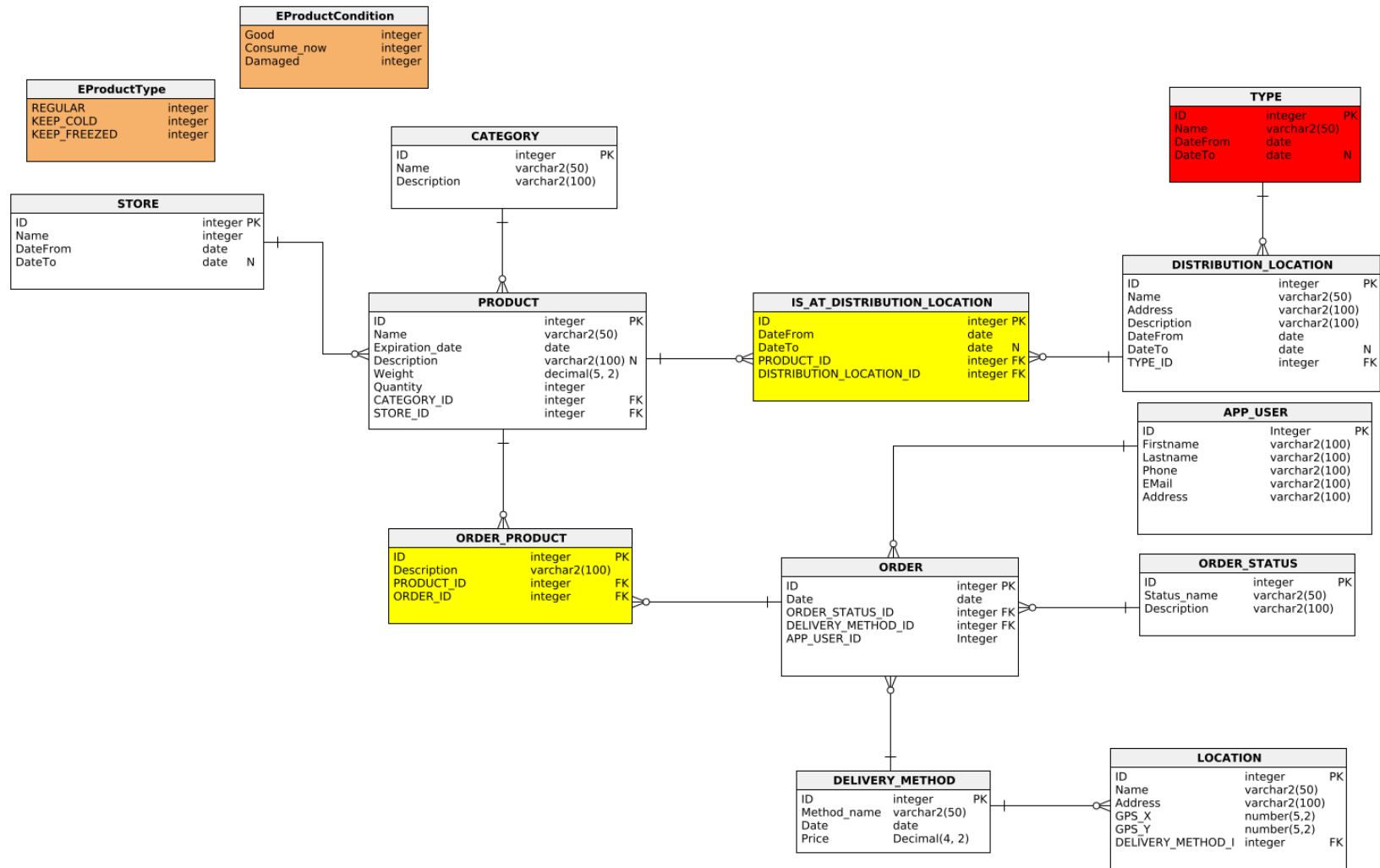
There are huge numbers for the state as small as Estonia. In general, every year is thrown out approximately 127 kg of food per person. Let's try to fix it with this project. There are some companies like Toidupank and some others, which focus on minimizing food waste and trying to bring various products to the people, who need it. But is it enough?

For example, Toidupank collects mainly products, that have a long best before date like pasta, flour, sugar, grains etc. The problem is, that person gets his pack of donated products, but most of these cannot be made into food suitable for everyday consumption, like, you cannot eat only pasta every day.

On the other side, various stores throw out products, which best before day approaches or is exceeded. According to the European law, supermarkets and retailers can legally sell **produce** that has passed its best before date, but cannot sell food that has passed its use by date since use by is related to safety rather than quality. But for example, pasta, that best before date has expired few days or weeks, is it somehow worse than the pasta, which best before has not expired? Probably there is no difference.

There is a term in Estonia, called “prügisukelduja” or garbage diver in English. There is a lot interviews with those people, who get good food from the garbage container behind the bigger store every evening. What if someone would collect the food from supermarkets and stores every evening and people could choose, what products they want and order these products paying only delivery cost or come and pick products up by themselves in some pick-up centers. In my opinion, this could be one step further to reduce food waste.

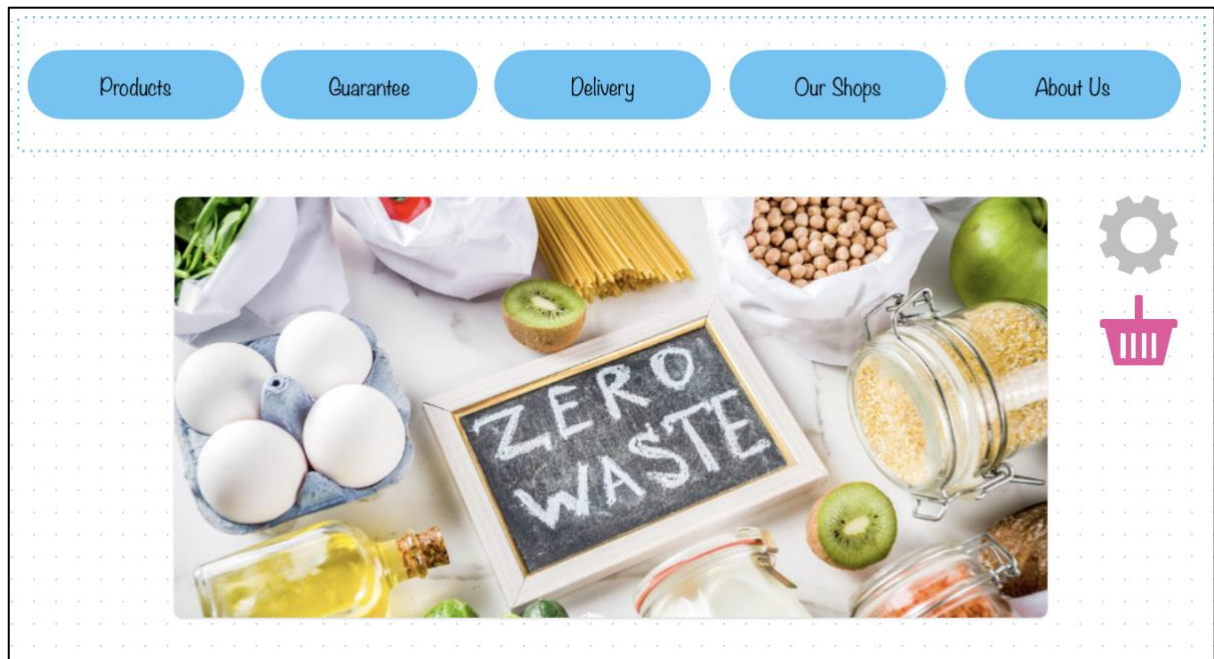
Entity Relationship Diagram (ERD)



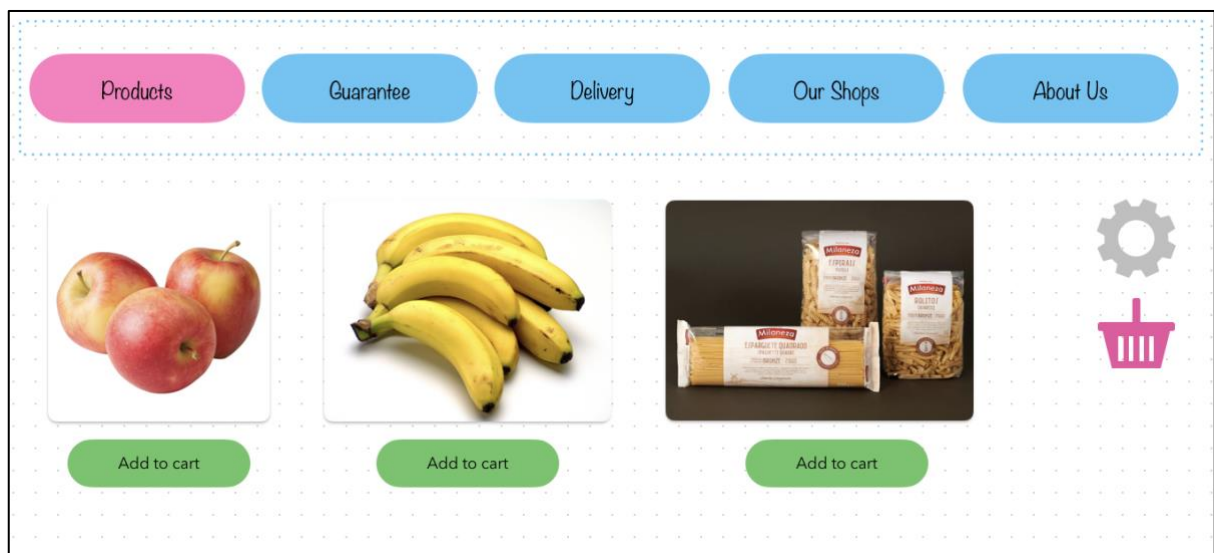
UI Examples

There is nothing special about the UI design, it is created using Apple Freeform app to make sketching faster. It is basically a web store with some differences.

1. Home page demo



2. Products page demo



To sum things up

Project description above is only for sketching future project. Many aspects of the project are going to change while implementing real application. For now ERD schema includes only basic viable entities for basic application implementation. ERD schema is going to change vastly during real implementation process. For example, entity “delivery method” includes attribute price, the idea behind it is, that delivery cost is constant value, for example 5 euros to prevent people ordering products “just to order”, but maybe later it may be necessary to change it.

During the creation of project proposal I had to change ERD schema several times and schema will advance further during lectures and individual work.