SMART KITCHEN

A Smart kitchen which help you speed up your cooking process with prepared recipe, meal plans and ingredients management.

All you have to do is enjoying cooking and having great dinner with your beloved.

Ho Quoc Vuong (Victor)‘s design
This is a design for Prototype Challenge included as part of the openSAP course “Touch IoT with SAP Leonardo”
Story

I strongly advise you to watch the interesting story video in this link: https://www.youtube.com/watch?v=jGrHhViM5Nk
If you don’t want to watch video, you can read below story:

Summary

Maria (and many other mothers) need a solution to speed up her cooking process and reduce her time to buy ingredients in supermarket.

Storyline

Maria is a busy accountant at ABC Co. She is also a conscientious mother, who has two lovely children. Before going to work, she need to prepare breakfast and lunch box for her family. In the evening, after a long working day, she must come home quickly to prepare a delicious dinner, but sometimes she realizes that she doesn’t have enough ingredients to cook the dish she wants. Which make her exhausted about going to buy missing ingredients. On another day, she found out that some food in the fridge has been spoil because she forgot to cook them.

She wishes that there’s a modern application that make sure her kitchen has enough ingredients for her weekly meal plan. All she need to do is just enter kitchen and start cooking.
Persona

Explain the needs, goals, and pain points addressed

Maria
The Mother/Accountant

“I like to get cooking done quickly since I want to have more time to enjoy with my family.”

About

- 36, married, 12 years of fiscal management experience.
- Being the person who not only want to be a successful CFO but also a beloved mother, she need to keep the balance between hard-working and caring for her family.
- Busy routine, jumping into housework right after work.

Responsibilities

- I am responsible for financial accounting data of company.
- I am responsible for many tasks in the company that I usually stay in office in a long time.
- As a mother, I take responsibility to prepare delicious meal with rich nutrition for my children and beloved husband.

Main Goals

- Be a reliable and effective accountant at company.
- Be a beloved Mom by better preparing delicious and nutritious meal.
- Keep the balance between hard-working and caring for her family.

Needs

- Reduce time to cooking by planning meal for the whole week.
- Have better meal by trying some new dish.
- Manage Ingredients/food existing in the kitchen (in fridge, cupboard)
- Reduce the time going to store to buy food

Pain Points

- Planning meals on paper is somewhat time-consuming and sometimes she forgets where the paper is.
- The recipe book is heavy and get dirty if I put it in kitchen. The book is hard to look up recipe also.
- Ingredients required for meal is missing.
- Food get spoiled or expired.
- Buying food & ingredients in store take much time.
Point of View

As a Mother

I need a way to prepare delicious meal with rich nutrition in a limit time, without worrying about missing ingredient.

So that I can have happy meal with my family, and have time for my work.
# UX Journey

**User Experience Journey – Cooking**

<table>
<thead>
<tr>
<th>ACTIONS</th>
<th>MINDSET</th>
<th>FEELING</th>
<th>TOUCH POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Look up Recipe for dinner</td>
<td>Ah have no idea how to find the recipe it in the book.</td>
<td>😊</td>
<td>Cooking book. Kitchen</td>
</tr>
<tr>
<td>Check Ingredients</td>
<td>Which ingredients are needed? Oh no! Something is missing.</td>
<td>😊</td>
<td>Cooking book. Kitchen: Fridge, cupboard</td>
</tr>
<tr>
<td>Go to Buy missing food/Ingredients</td>
<td>Argh I must go to the store to buy the missing ingredients I wish someone would ship the missing one to me.</td>
<td>😊</td>
<td>Car Change clothes</td>
</tr>
<tr>
<td>Buy the Ingredient</td>
<td>Go around to search for the ingredients OMG wait in line again.</td>
<td>😊</td>
<td>Shopping cart. Store’s shelves Cashier</td>
</tr>
<tr>
<td>Start Cooking</td>
<td>Let’s start cooking</td>
<td>😊</td>
<td>Kitchen</td>
</tr>
<tr>
<td>Enjoy Meal</td>
<td>Finally, I can enjoy delicious food with my beloved.</td>
<td>😊</td>
<td>Dining table Family</td>
</tr>
</tbody>
</table>
Prototype
Prototype screens for an IoT application to solve your PoV

Screenshot of my Prototype in BUILD:

- **Figure 1. Overview Screens Map**

**SCREEN DISHES LIST:**

This screen allow user to plan meals with list of dishes that they can prepare. Each dish will require a list of ingredients, which display in Dish Details.

(Dishes list & details use Fiori app template from openSAP, with database save on HANA Cloud)

- **Figure 2. Dishes List**
SCREEN DISK DETAILS

This screen (navigate from ‘dishes list’ screen) display details about each dish:
- How to prepare that dish
- List of required ingredients. If you have enough ingredients, you can navigate to screen “cooking steps” by pressing on ‘Cook’ button.

User can navigate to screen ‘Ingredients in kitchen’ to know more details about which ingredients is currently available within family kitchen.

SCREEN COOKING STEPS

This screen shot details steps to cook a dish. This screen is allow user to know more details (including pictures & videos) about cooking steps than the screen “dish details”. User can also edit cooking steps in this video as save the recipe as a personalized recipe.

SCREEN INGREDIENTS IN KITCHEN

The ingredients are monitored automatically by smart devices in kitchen like smart fridge, smart cupboard. These smart devices are equipped with hi-tech sensor that allow them to know which ingredients is put in or get from them. They will return status of ingredients in kitchen so that we can know the current amounts of ingredients in user kitchen. That data will be transmitted to cloud application (our apps) using IoT service. From there we can display data about ingredients to user.

(This sensing technology for smart fridge, cupboard is not available now yet. But with the rapid development of IoT technology, we can achieve that. Smart fridge & cupboard is a notable example for connected-goods)
After users checking the ingredients in fridges, he can find out that some ingredients are running out. He can order more of those ingredients via some simple steps. These steps can be automatically to save user’s time. When the ingredients are lower than a certain threshold (set by user), it will automatically trigger an order to Store to by depleted ingredients.

![Shopping Cart](image)

**Figure 5. Shopping Cart**

You can experience the Prototype in below link:
[https://standard.build.me/api/projects/7b9ceb68f86373390cd447a5/prototype/snapshot/latest/index.html#/1444936040491_S0](https://standard.build.me/api/projects/7b9ceb68f86373390cd447a5/prototype/snapshot/latest/index.html#/1444936040491_S0)