- **User Research:**

To learn more about the users' behavior, I met with 2 participants using video chat. They are real people, given made up names for this project: Max and Hana. The result is, both participants preferred planning their meals a day before but not longer. Neither of them cares a lot for the budget or struggle with commuting. They both try to avoid fried food and they care for cooking time. Surprisingly, Max is willing to spend more money by buying smaller portions to avoid eating the same thing multiple days. Overall, I don't think they are the targeted demographic I was looking for. However, they are both interested in an app that suggests new recipes to try, as long as the recipes don't require a long preparation time. They didn't care for sugar or salt consumption tracking, but would like it to help them avoid oily/ high cholesterol foods. For the Cart to go app, I will add high cholesterol to the list of concerns to track with salt and sugar and look for more participants. None of the contacted participants was ready to test a planned recipe list last week but they might be able to write a diary in the next couple of weeks.

A function should be added to check how an item is modified in the recipes. For example, in Max's case, he must avoid raw foods because the fibers, that doesn't mean the app should exclude all raw vegetables and fruits as many of them can be cooked. But some cannot be cooked like lettuce and dried fruits like raisins. So, the app should check the final state of ingredients in the recipe to see if it's suitable for Max or not instead of only checking the ingredients, portions and cooking methods.

- **Personas:**

I'm not changing much of the made-up personas until I gathered more information from other participants. Although, I will add Max and Hana to the personas..
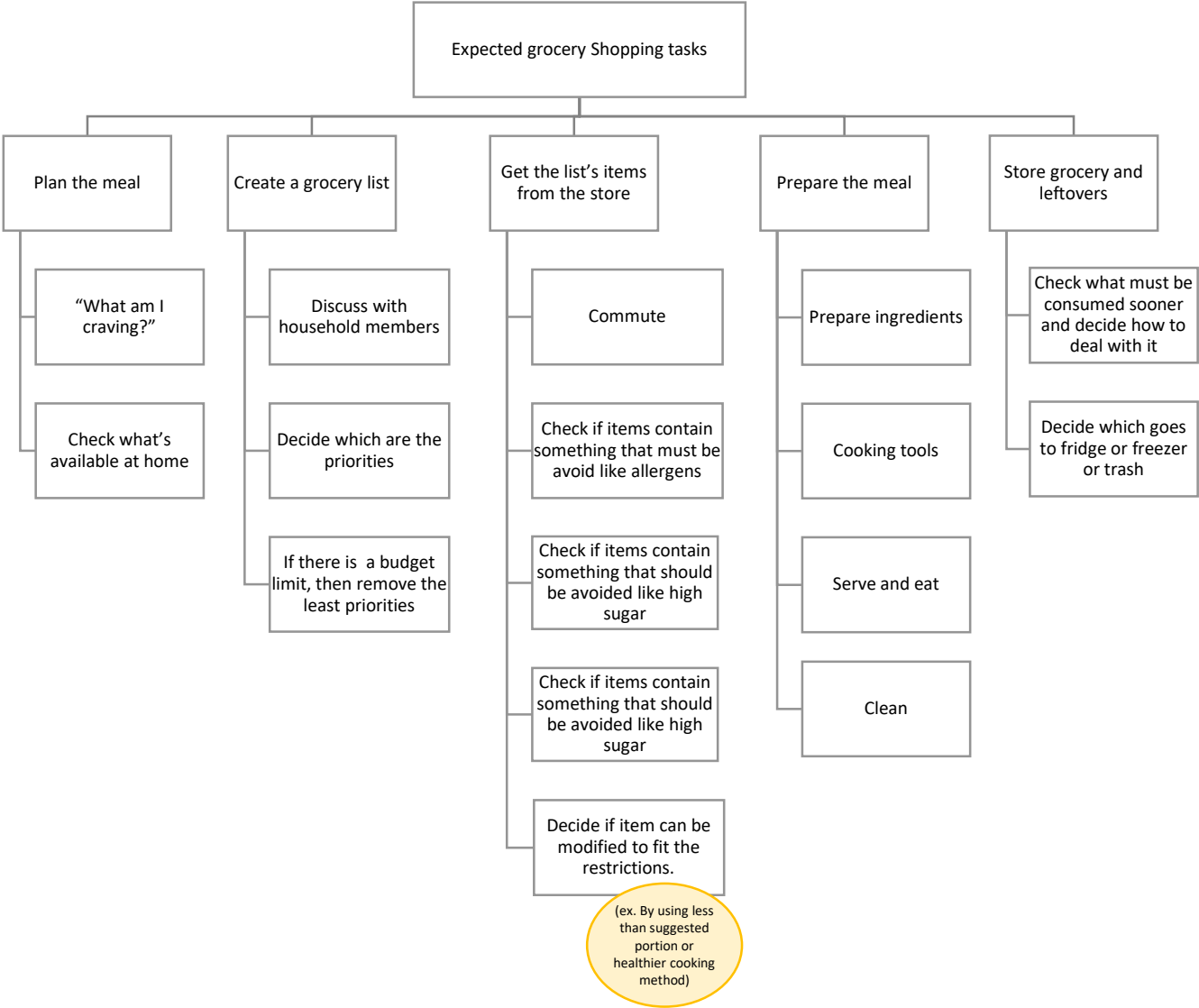
<u>Target group:</u>

1) Someone who often ends up with expired food in the fridge.

2) Someone who is changing a diet, trying new kinds of food.

3) Someone who realizes that a key ingredient is missing and is conflicted between going to buy it or fixing a meal from what is available at home.
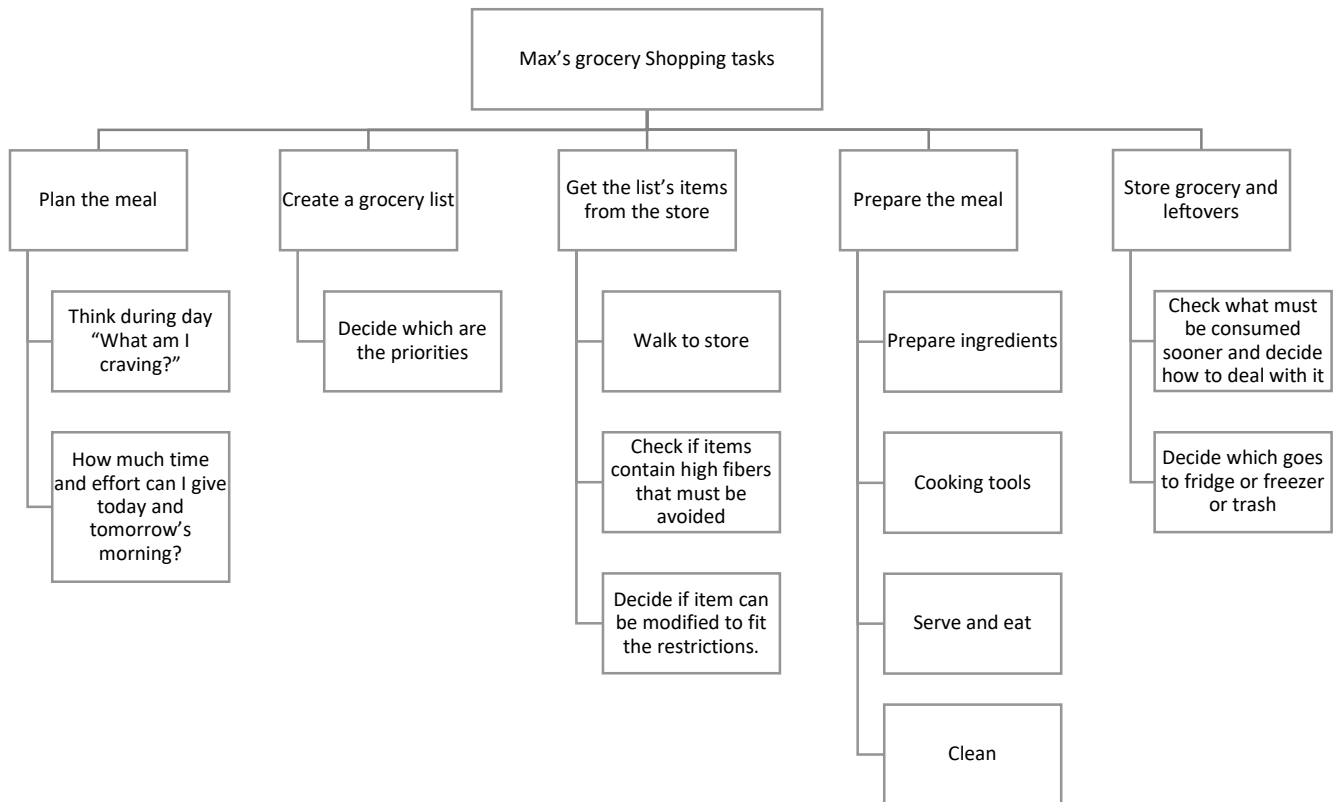
<u>Examples of users Personas:</u>

➢ **(Max):** Single man. He can't eat any raw foods with high fibers. He considers the grocery trip an exercise. He doesn't care about budget, sugar or salt consumption. Likes variations in his meals.

➢ **(Hana):** The daughter in a family of 5. Cares alot about the meals' preparation and cooking time. Depends on freezing foods to preserve it. She and her family avoid seafood and try to avoid fried foods and carbs. She sets a monthly budget for snacks and drinks. Her family doesn't set a budget, but plans the grocery shopping for her.

➢ (**Anne**): A single woman living downtown near many supermarkets. She is a full-time student who tends to eat out at least 6 days per week. She wants to eat home cooked food at least for dinner to make a healthy meal and save money. She buys meat and vegetables that expire before she can cook them the way she planned.

➢ (**Tim**): A husband and father of 3 children. He lives 10 minutes drive from supermarkets but drives 40 minutes to his workplace everyday. He finds himself needing to get groceries late at night about twice a week because he forgets them on his way back from work.

➢ (**Jade**): A wife and mother of a son. She is trying a healthier diet that consists of foods different from what she is used to buy. She tends to stand a long time in the aisles reading labels and checking recipes online.

Task model:

```
                        ┌─────────────────────────────┐
                        │  Expected grocery Shopping   │
                        │           tasks              │
                        └─────────────────────────────┘
```

Plan the meal	Create a grocery list	Get the list's items from the store	Prepare the meal	Store grocery and leftovers

Plan the meal
- "What am I craving?"
- Check what's available at home

Create a grocery list
- Discuss with household members
- Decide which are the priorities
- If there is a budget limit, then remove the least priorities

Get the list's items from the store
- Commute
- Check if items contain something that must be avoid like allergens
- Check if items contain something that should be avoided like high sugar
- Check if items contain something that should be avoided like high sugar
- Decide if item can be modified to fit the restrictions.
  - (ex. By using less than suggested portion or healthier cooking method)

Prepare the meal
- Prepare ingredients
- Cooking tools
- Serve and eat
- Clean

Store grocery and leftovers
- Check what must be consumed sooner and decide how to deal with it
- Decide which goes to fridge or freezer or trash

- Task model (for Max):

```
                        ┌─────────────────────────┐
                        │ Max's grocery Shopping   │
                        │ tasks                    │
                        └─────────────────────────┘
```

Plan the meal	Create a grocery list	Get the list's items from the store	Prepare the meal	Store grocery and leftovers
Think during day "What am I craving?"	Decide which are the priorities	Walk to store	Prepare ingredients	Check what must be consumed sooner and decide how to deal with it
How much time and effort can I give today and tomorrow's morning?		Check if items contain high fibers that must be avoided	Cooking tools	Decide which goes to fridge or freezer or trash
		Decide if item can be modified to fit the restrictions.	Serve and eat	
			Clean	

- Task model (for Hana):

```
                        ┌─────────────────────────┐
                        │ Hana's grocery Shopping  │
                        │ tasks                    │
                        └─────────────────────────┘
```

Plan the meal	Create a grocery list	Get the list's items from the store	Prepare the meal	Store grocery and leftovers
"What am I craving?"	Discuss with household members	Drive to store	Prepare ingredients	Check what must be consumed sooner and decide how to deal with it
Check what's available at home	Decide which are the priorities	Check if items contain something that must be avoid like high cholesterol	Cooking tools	Decide which goes to fridge or freezer or trash
		Check if items contain something that should be avoided like high sugar	Serve and eat	
		Decide if item can be modified to fit the restrictions.	Clean	

- **Conversation topics:**

These were the questions asked to the participants in conversational context. The next page is the highlights of each conversation.

- How often do you shop for groceries in a month?

- For how many people do you often shop/ household members?

- If you have medical conditions that affect your diet, what are the effects? Ex. avoiding sugar/salt/red meat?

- Any allergies? Any other food types you avoid and why?

- Do you set a budget for each grocery trip? Or do you set a weekly/monthly budget?

- Would you rather have a set of meals starting each week and shop based on it? Or do you go to the store and decide based on what is fresh or on sale?

- How often do you end up with expired foods in your fridge?

- How often do you buy something new to try but delay using it?

- How do you deal with leftovers or too much of something?

- At the end, the project was explained to them as follows: "The project goal is avoiding food and money waste by creating a weekly meals plan based on your favorite foods and budget, avoiding what you don't eat or need to consume less of like sugar. The main function will be recipes suggestions and creating a grocery shopping list from your nearest or favorite store. Since it will be a mobile app it will also notify you if you add items that are beyond your budget or contain foods you're avoiding. It will keep track of your salt/sugar consumption and your pantry/fridge contents."

Max:

1. He shops daily and cooks for himself.

2. He doesn't mind walking to the grocery store for 10 minutes as exercise, usually takes 30 minutes per trip.

3. He only buys rice and pasta in bulk, sometimes frozen shrimp.

4. He doesn't set a budget before grocery shopping.

5. He decides what to buy based on how much time and effort he can put in cooking today and next day's morning.

6. He's easily tempted to buy something new even when he doesn't know how to eat it and spends time searching for recipes later.

7. He likes variety in his meals, so meal prepping is not ideal for him.

8. His favorite food is variations of cooked shrimp and pasta.

9. He must avoid raw vegetables for a medical reason, so everything must be well cooked.

10. He doesn't have any known allergies.

11. He tries to avoid fried foods, doesn't mind salt or sugar.

12. He doesn't mind buying smaller portions (more costly) in order to avoid food waste.

Hana:

1. She shops monthly for herself and family of five (parents and siblings).

2. Her family prefers buying meat, chicken and produce twice a week.

3. She sometimes cooks for herself alone and sometimes cooks for the family.

4. She cares for preparing and cooking time more than budget.

5. She buys lots of bulk items that last for more than a month.

6. She sets a monthly budget for snacks and drinks.

7. She doesn't have a problem with commuting since the monthly trip is always on a weekend, while the short trips have few repeated items.

8. Her favorite food is grilled chicken with vegetables and pasta.

9. She prefers frozen pre-cut vegetables and fruits rather than fresh produce.

10. She and her family try to avoid fried food and consume less oils for medical reasons. Also try to consume less sugar and carbs but it hasn't been strict.

11. Some of her family members are allergic to seafood so they all avoid it.

12. If something is close to expiration, they freeze it, and any cooked leftovers get frozen or eaten the next day.