openSAP course Build Your Own SAP Fiori App in the Cloud – 2016 Edition

"Menu Planner"

DESIGN CHALANGE

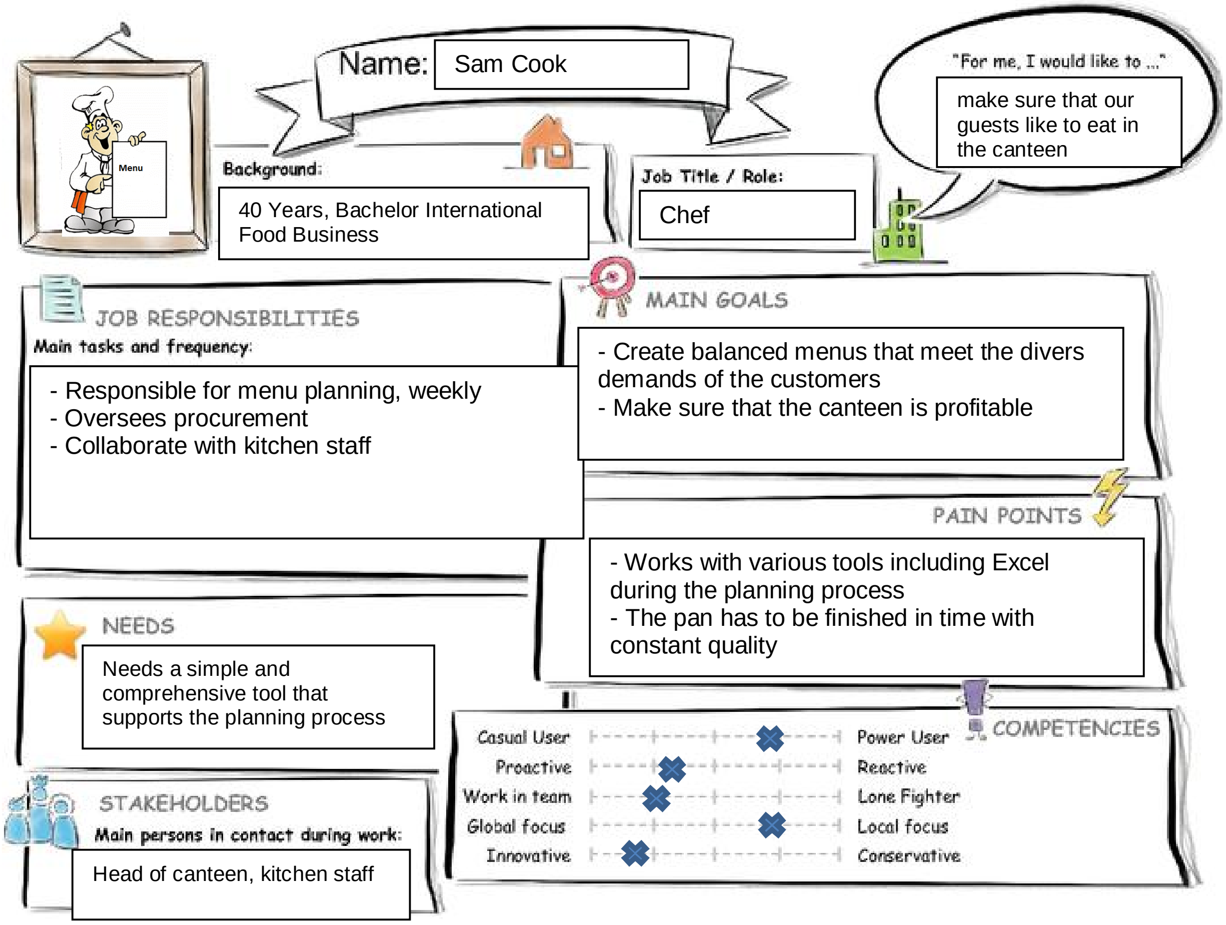
STORY

Canteens have to serve menus week by week that meet the expectations of their customers, and at the same time can be prepared with the available resources. Creating the weekly menu plan is therefore one of the processes that are the key for the success of a canteen.

The "Menu Planner" application is targeted at the hospitality industry, in particular for canteens. It will help the team that creates the menu plan to choose diverse meals that provide a balanced nutrition without exceeding the budget limits.

The application will have a simple and intuitive user interface that provides a convenient user experience. It will allow to search for recipes according to their category, kind of nutrition, and other properties. The recipes will provide all information that is required for the planning process including pictures, comments, the date when it was last served, and the resource requirements.

PERSONA



Name: Sam Cook

Background: 40 Years, Bachelor International Food Business

Job Title / Role: Chef

"For me, I would like to ..." make sure that our guests like to eat in the canteen

JOB RESPONSIBILITIES

Main tasks and frequency:

- Responsible for menu planning, weekly
- Oversees procurement
- Collaborate with kitchen staff

MAIN GOALS

- Create balanced menus that meet the divers demands of the customers
- Make sure that the canteen is profitable

PAIN POINTS

- Works with various tools including Excel during the planning process
- The pan has to be finished in time with constant quality

NEEDS

Needs a simple and comprehensive tool that supports the planning process

STAKEHOLDERS

Main persons in contact during work:

Head of canteen, kitchen staff

COMPETENCIES

Casual User — Power User
Proactive — Reactive
Work in team — Lone Fighter
Global focus — Local focus
Innovative — Conservative

USER EXPERIENCE JOURNEY

“Find a pasta recipe for Monday”

Mindset

What is on the Persona’s mind while taking the actions of their journey? How do they feel each step of the journey?

Actions

What actions and activities does the Persona take while going thru the journey to achieve their goal?

Touch points

What touch points does the Persona have?
(Tools, channels, devices, conversations, and so on.)

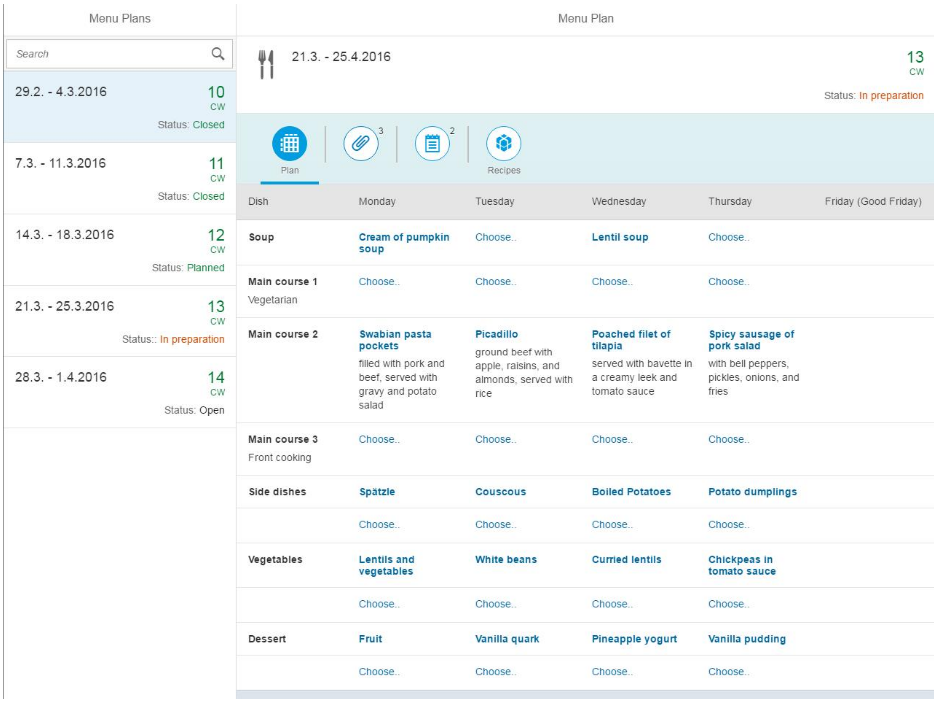
Current user experience journey, duration: 15 mins

Start: Planning for Monday is nearly done, at last, I need a pasta recipe.	There are a lot of options. Let’s make Spaghetti Bolognese – they will love it. ☺ 🔵	Oh no – we had this already two weeks ago. ☹ 🔴 Linguine with chicken slices!	Now there is no vegetarian alternative on Monday. ☹ 🔴	That’s it – risotto with mushrooms. ☺ 🔵
Start recipe database Use search criteria: Pasta	Go through menus of the last weeks 🔴	Lookup another recipe from the database Enter recipe into Excel sheet	Lookup another recipe from the database	Enter recipe into Excel sheet
Recipe database program	Windows Explorer, Excel	Recipe database program Excel	Recipe database program	Excel

POINT OF VIEW

Sam, the cook, needs a **comprehensive tool for planning the menu** so that **he is able to choose recipes that fit into the plan**.

MOCKUPS



Menu Plans

Search

29.2. - 4.3.2016 — 10 CW — Status: Closed

7.3. - 11.3.2016 — 11 CW — Status: Closed

14.3. - 18.3.2016 — 12 CW — Status: Planned

21.3. - 25.3.2016 — 13 CW — Status:: In preparation

28.3. - 1.4.2016 — 14 CW — Status: Open

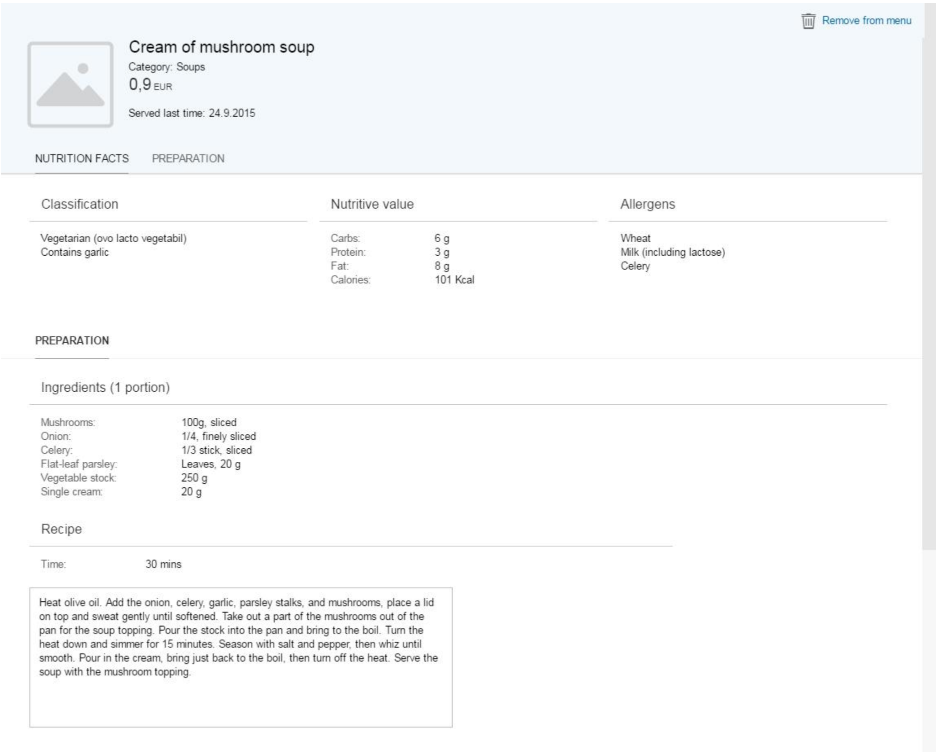
Menu Plan

21.3. - 25.4.2016 — 13 CW

Status: In preparation

Dish	Monday	Tuesday	Wednesday	Thursday	Friday (Good Friday)
Soup	**Cream of pumpkin soup**	Choose..	**Lentil soup**	Choose..	
Main course 1 Vegetarian	Choose..	Choose..	Choose..	Choose..	
Main course 2	**Swabian pasta pockets** filled with pork and beef, served with gravy and potato salad	**Picadillo** ground beef with apple, raisins, and almonds, served with rice	**Poached filet of tilapia** served with bavette in a creamy leek and tomato sauce	**Spicy sausage of pork salad** with bell peppers, pickles, onions, and fries	
Main course 3 Front cooking	Choose..	Choose..	Choose..	Choose..	
Side dishes	**Spätzle**	**Couscous**	**Boiled Potatoes**	**Potato dumplings**	
	Choose..	Choose..	Choose..	Choose..	
Vegetables	**Lentils and vegetables**	**White beans**	**Curried lentils**	**Chickpeas in tomato sauce**	
	Choose..	Choose..	Choose..	Choose..	
Dessert	**Fruit**	**Vanilla quark**	**Pineapple yogurt**	**Vanilla pudding**	
	Choose..	Choose..	Choose..	Choose..	

Overview of menu plans, and a single menu plan



Cream of mushroom soup

Category: Soups

0,9 EUR

Served last time: 24.9.2015

Classification

Vegetarian (ovo lacto vegetabil)
Contains garlic

Nutritive value

Carbs:	6 g
Protein:	3 g
Fat:	8 g
Calories:	101 Kcal

Allergens

Wheat
Milk (including lactose)
Celery

PREPARATION

Ingredients (1 portion)

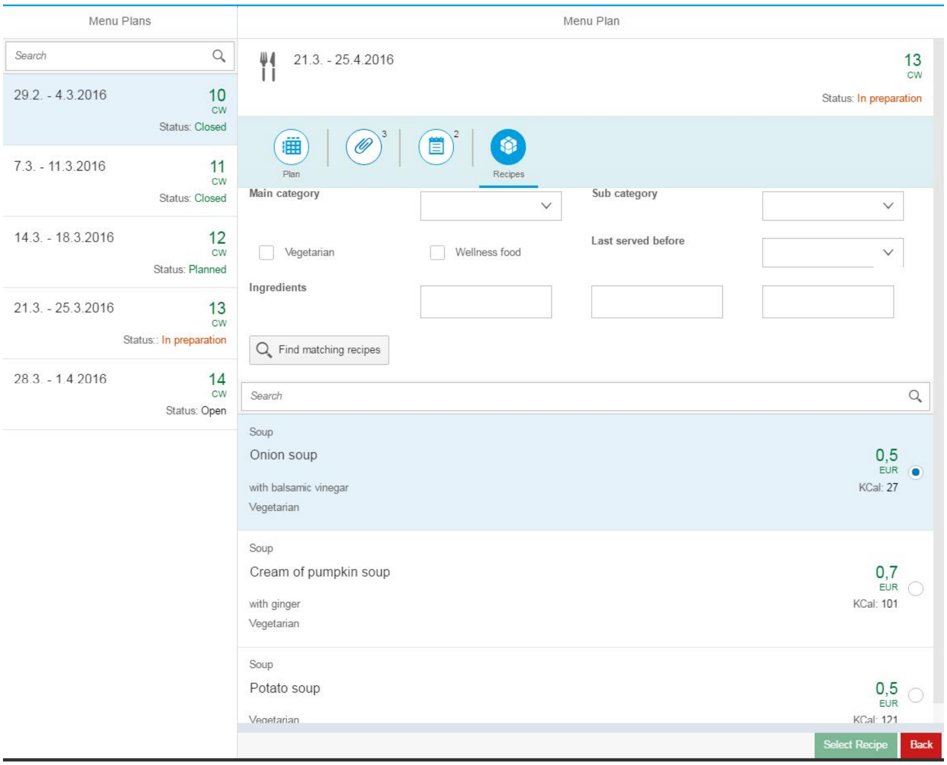
Mushrooms:	100g, sliced
Onion:	1/4, finely sliced
Celery:	1/3 stick, sliced
Flat-leaf parsley:	Leaves, 20 g
Vegetable stock:	250 g
Single cream:	20 g

Recipe

Time: 30 mins

Heat olive oil. Add the onion, celery, garlic, parsley stalks, and mushrooms, place a lid on top and sweat gently until softened. Take out a part of the mushrooms out of the pan for the soup topping. Pour the stock into the pan and bring to the boil. Turn the heat down and simmer for 15 minutes. Season with salt and pepper, then whiz until smooth. Pour in the cream, bring just back to the boil, then turn off the heat. Serve the soup with the mushroom topping.

Detail view of a single recipe



29.2. - 4.3.2016 10 CW Status: Closed

7.3. - 11.3.2016 11 CW Status: Closed

14.3. - 18.3.2016 12 CW Status: Planned

21.3. - 25.3.2016 13 CW Status:: In preparation

28.3. - 1.4.2016 14 CW Status: Open

21.3. - 25.4.2016 13 CW Status: In preparation

Soup
Onion soup 0,5 EUR ●
with balsamic vinegar KCal: 27
Vegetarian

Soup
Cream of pumpkin soup 0,7 EUR ○
with ginger KCal: 101
Vegetarian

Soup
Potato soup 0,5 EUR ○
Vegetarian KCal: 121

Recipe browser for selecting recipes from the recipe database

Note: In the mockup the recipe browser is realized as a tab of the menu plan. In the final app it is a separate page.

STUDY

https://standard.experiencesplash.com/home/projects/d75fda4ed6b767590baae544/research/participant/0e64658447adf7e60bac2a7d

DEVELOP CHALANGE

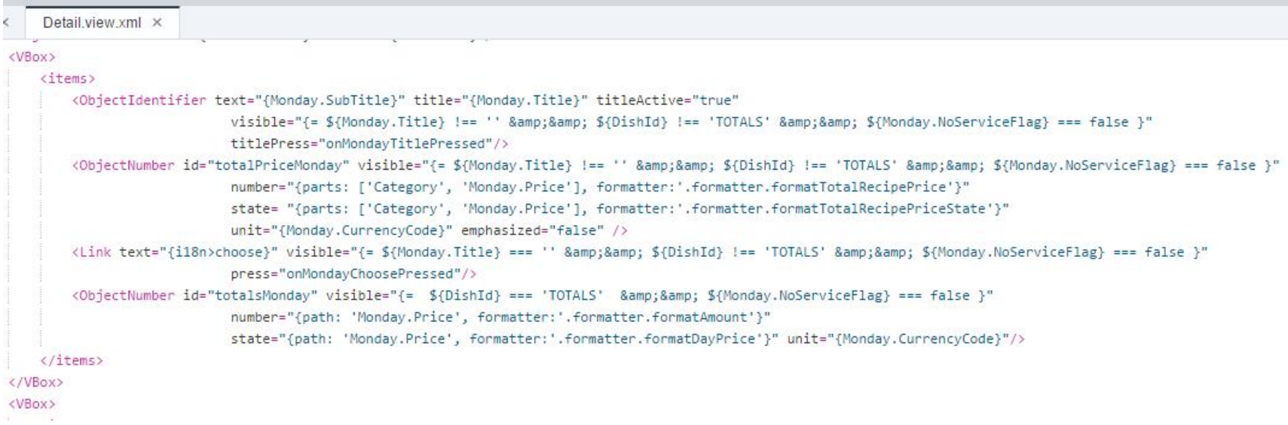
The following video provides a demonstration how the app works:

https://youtu.be/XousNEWLjUQ

SAP Web IDE App Implementation

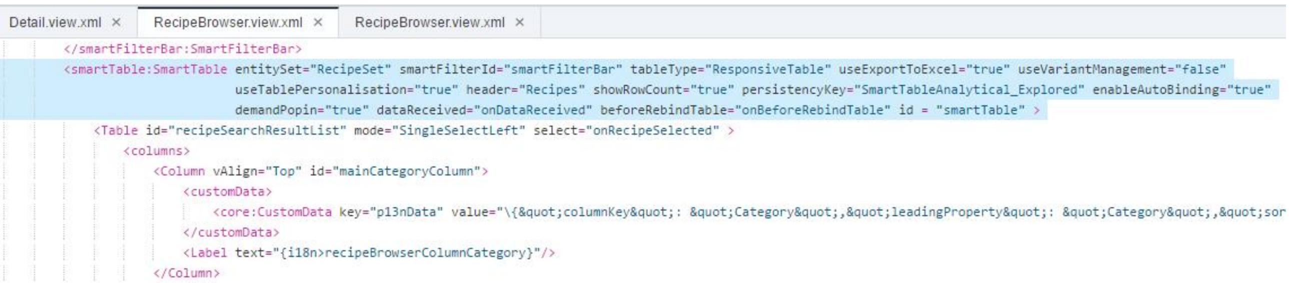
The three main components clearly demonstrate that they have been created from scratch or that they are completely changed parts of the templates. In particular: The menu plan view consists of a table that contains cells that act either as links ("Choose.."), object identifiers (Title, Subtitle, price) or object numbers (totals). The recipe view consists of forms, and even a further table. The recipe browser view has filters that can be influenced by the navigation parameters. Moreover, the user can change the model.

The following screenshot shows the layout of a single cell in the menu plan. The virtual box contains of four elements. By binding the `visible` attribute it is achieved that the correct components are visible. For example, the title is displayed only if it is not empty. The navigation is initiated by the events `onMondayPressed`, and `onMondayChoosePressed`.



```
<VBox>
    <items>
        <ObjectIdentifier text="{Monday.SubTitle}" title="{Monday.Title}" titleActive="true"
                          visible="{= ${Monday.Title} !== '' &amp;&amp; ${DishId} !== 'TOTALS' &amp;&amp; ${Monday.NoServiceFlag} === false }"
                          titlePress="onMondayTitlePressed"/>
        <ObjectNumber id="totalPriceMonday" visible="{= ${Monday.Title} !== '' &amp;&amp; ${DishId} !== 'TOTALS' &amp;&amp; ${Monday.NoServiceFlag} === false }"
                          number="{parts: ['Category', 'Monday.Price'], formatter:'.formatter.formatTotalRecipePrice'}"
                          state= "{parts: ['Category', 'Monday.Price'], formatter:'.formatter.formatTotalRecipePriceState'}"
                          unit="{Monday.CurrencyCode}" emphasized="false" />
        <Link text="{i18n>choose}" visible="{= ${Monday.Title} === '' &amp;&amp; ${DishId} !== 'TOTALS' &amp;&amp; ${Monday.NoServiceFlag} === false }"
                          press="onMondayChoosePressed"/>
        <ObjectNumber id="totalsMonday" visible="{=  ${DishId} === 'TOTALS'  &amp;&amp; ${Monday.NoServiceFlag} === false }"
                          number="{path: 'Monday.Price', formatter:'.formatter.formatAmount'}"
                          state="{path: 'Monday.Price', formatter:'.formatter.formatDayPrice'}" unit="{Monday.CurrencyCode}"/>
    </items>
</VBox>
<VBox>
```

The recipe browser view uses a `SmartFilterBar` and a `SmartTable`:



```
        </smartFilterBar:SmartFilterBar>
        <smartTable:SmartTable entitySet="RecipeSet" smartFilterId="smartFilterBar" tableType="ResponsiveTable" useExportToExcel="true" useVariantManagement="false"
                          useTablePersonalisation="true" header="Recipes" showRowCount="true" persistencyKey="SmartTableAnalytical_Explored" enableAutoBinding="true"
                          demandPopin="true" dataReceived="onDataReceived" beforeRebindTable="onBeforeRebindTable" id = "smartTable" >
            <Table id="recipeSearchResultList" mode="SingleSelectLeft" select="onRecipeSelected" >
                <columns>
                    <Column vAlign="Top" id="mainCategoryColumn">
                        <customData>
                            <core:CustomData key="p13nData" value="\{&quot;columnKey&quot;: &quot;Category&quot;,&quot;leadingProperty&quot;: &quot;Category&quot;,&quot;sor
                        </customData>
                        <Label text="{i18n>recipeBrowserColumnCategory}"/>
                    </Column>
```

In order to influence the filtering according to the category it was crucial to implement a listener for the event `beforeRebindTable`. The radio buttons could be realized by explicitly defining the table layout, and by using `mode="SingleSelectLeft"`. The listener for the select event realizes the context sensitive enabling of the "Choose Recipe" button.

SAP Web IDE App Navigation

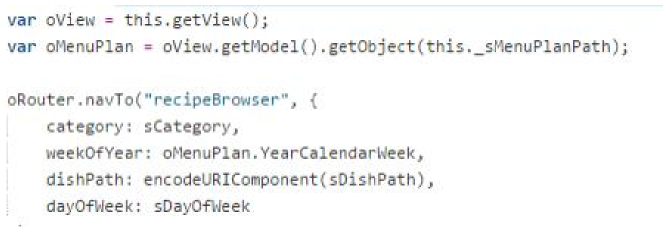
The most interesting navigation takes place between the menu plan view and the recipe browser view. The navigation pattern consists of four parameters:

```
recipeBrowser/{category}/weekOfYear/{weekOfYear}/dishPath/{dishPath}/dayOfWeek/{dayOfWeek}
```

The latter two parameters are required in order to allow the browser to change the model if the user chooses a recipe. The first parameter is particularly important to set the filter correctly. The parameters are first received by the listener `onObjectMatched`:

```
this._requestedCategory = oEvent.getParameter("arguments").category;
```

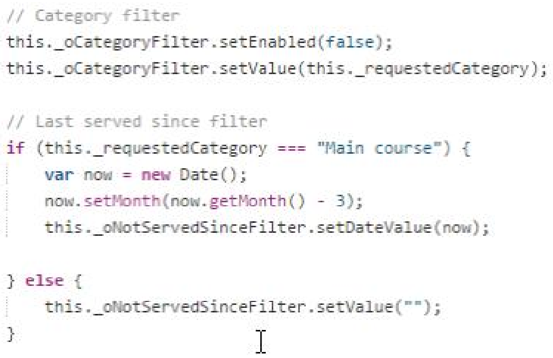
This information is afterwards used to set the filter. Note, that the category filter cannot be edited by the user, and that the "Not served since" filter is set only for category "main course".



```
var oView = this.getView();
var oMenuPlan = oView.getModel().getObject(this._sMenuPlanPath);

oRouter.navTo("recipeBrowser", {
    category: sCategory,
    weekOfYear: oMenuPlan.YearCalendarWeek,
    dishPath: encodeURIComponent(sDishPath),
    dayOfWeek: sDayOfWeek
```

Sender: Detail.contoller.js



```
// Category filter
this._oCategoryFilter.setEnabled(false);
this._oCategoryFilter.setValue(this._requestedCategory);

// Last served since filter
if (this._requestedCategory === "Main course") {
    var now = new Date();
    now.setMonth(now.getMonth() - 3);
    this._oNotServedSinceFilter.setDateValue(now);

} else {
    this._oNotServedSinceFilter.setValue("");
}
```

Receiver: RecipeBrowser.controller.js

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