

Human–Computer Interaction

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MASTERBOOK

STAGE #2



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1 Problem Description

One of the factors that is fundamental to the management of *society's daily tasks* is the *time* available. Whether *families* or *individuals*, the *time* spent on *daily tasks* must be managed accurately to achieve *goals*.

Often, the new "*Home Chefs*" have *some problems* to start new *Recipes* and people *never should* be *afraid* to *try new things*.

Feeding, and remembering the *Maslow's Pyramid*, is a *physiological necessity* and is found at the base of this *pyramid*, thus supporting all *adjacent layers*.

With the rise of *remote work*, influenced by the current *pandemic situation*, people, as they spend more *time* at home, need to *plan* and *vary* their *meals*. For the *profitability* of *time*, it's necessary to have a *Recipe Repository*, in order to be consulted, as well as its *Ingredients/Products*, its *Steps/Instructions* to follow, as also, the respective necessary *time* for each one of it.

Sometimes, the imagination to *cook*, a little due to *routines*, is scarce. In some situations, we have already faced the situation of having few or even, no *Ingredients/Products* at all, as also, don't knowing what to *cook*.

In addition to *time management*, it's also important made a good *resource management*. Thus, it becomes important to have knowledge of the places of sale of the *Ingredients/Products* that have the *best prices*.

As we live in an era of *Internet*, we sometimes find *Recipes* in *Web Searches*, but we don't find *any Opinions* or *Classification/Score* of them.

2 Users' Analysis

The *target User population* for our *application*, can be specified to a global group of *Users*, from an *age range from 14 to 70 years old*, since everyone (or almost everyone) belonging to this *age range*, needs to *cook* and is able to do it.

However, our target users, can be generalised as the following:

- *Teenagers/Young Adults*, starting to *cook* and learning about it;
- *Families* with limitations of *time*, due to their *jobs, home tasks* and *daily responsibilities*;
- *Older People*, with *difficulties* and *limitations* of *movements/dislocations*;
- Inexperienced *Cookers/Chefs*, who want to learn new *Recipes* with other experienced *Cookers/Chefs*;
- Experienced *Cookers/Chefs*, who want to *share* and/or *promote* their *Recipes* with other people, including other *Cookers/Chefs*;

3 Tasks' Analysis

Our *application* will be focused, mainly, in 6 groups of *Tasks*. Each group of the *Tasks*, can be subdivided in specific *Tasks*, which can be performed by the *User*, described (and some of them, highlighted), as following:

1. *Management of Account:*

(a) *Creation/Registration of an User's Account:*

- **Objective:**
 - The *User* wants to *create/register* an *Account*;
- **Pre-Conditions:**
 - Cannot exist any *User* registered with the given *username*;
- **Sub-Tasks:**
 - Fulfil a *Web Form*, providing personal information (ex: *first name*, *last name*, *gender*, *birthday*, *e-mail*, etc.) and its *credentials* (*username* and *password*), for the *login*;
- **Exceptions:**
 - There's an *User registered*, with the given *username*;
 - Mandatory fields of the *Web Form*, left in blank;
 - *Password* chosen don't have *length* between 8 and 16;
 - *Password* chosen isn't composed by *alpha-numerical characters* (*letters/numbers*), and by, at least, one *special character*;
- **Frequency of Use:**
 - Low;

(b) *Login to an User's Account*;

(c) *Edition/Change of the details of an User's Account*;

(d) *Cancellation/Deletion of an Account, by an User*;

2. *Management of Recipe:*

(a) *Creation/Addition of a Recipe, by an User:*

- **Objective:**
 - The *User* wants to *create/add* a *Recipe*, from its own;
- **Pre-Conditions:**
 - The *User* must be *logged* in to his *Account*;
- **Sub-Tasks:**
 - Fulfil a *Web Form*, providing the information (ex: *Title*, *Sub-Title*, *Description*, *Ingredients/Products*, *Steps/Instructions*, with *Timers*, or even, *Photos*, etc.) of the respective *Recipe*;

- **Exceptions:**
 - Mandatory fields of the *Web Form* are left in blank;
 - **Frequency of Use:**
 - High;
- (b) *Edition/Change of the details of a Recipe, by an User;*
- (c) *Removal/Deletion of a Recipe, by an User;*
3. *Interaction with Recipe:*
- (a) **Based on Commenting:**
- i. *Creation/Addition of a Comment to a Recipe, from an User:*
 - **Objective:**
 - The *User* wants to *create/add* a *comment* to a *Recipe*;
 - **Pre-Conditions:**
 - The *User* must be *logged* in to his *Account*;
 - **Sub-Tasks:**
 - Write the *comment*, in the *text box* of a *Web Form*, below all the *comments* already posted, in a *Recipe*'s page;
 - Click on the *Button "Comment"*, close to the *text box*;
 - **Exceptions:**
 - None;
 - **Frequency of Use:**
 - High;
 - ii. *Edition/Change of a Comment to a Recipe, from an User;*
 - iii. *Removal/Deletion of a Comment to a Recipe, from an User;*
- (b) *Based on Sharing:*
- i. *Share a Recipe, from another User;*
- (c) *Based on Reviewing of Quality:*
- i. *Creation/Insertion of a Review of Quality for a Recipe:*
 - **Objective:**
 - The *User* wants to *Review* a *Recipe*, from other *User*, in terms of *Quality*;

- **Pre-Conditions:**
 - The *User* must be *logged* in to his *Account*;
 - The *User* mustn't *own* that *Recipe*;
 - The *User* cannot have *reviewed* that *Recipe* yet, in terms of *Quality*;
- **Sub-Tasks:**
 - Click on the *Button* "Review Quality", in a *Recipe*'s page;
 - Select a *Quality Classification Score*;
 - Add a *Quality Review Comment* (can be empty);
 - Click on the *Button* "Add Quality Review";
- **Exceptions:**
 - No *Quality Classification Score* is *selected*;
- **Frequency of Use:**
 - Medium;

(d) *Based on Reviewing of Difficulty*;

4. *Search Topics/Entities/Properties:*

- (a) *Search Recipes*;
- (b) *Search Ingredients*;
- (c) *Search Shopping Stores*;
- (d) *Search Users*;

5. *Management of Shopping Cart:*

- (a) *Addition/Insertion of Ingredient/Product to an User's Shopping Cart:*
 - **Objective:**
 - The *User* wants to *add/insert* a specific *Ingredient/Product* to its *Shopping Cart*;
 - **Pre-Conditions:**
 - The *User* must be *logged* in to his *Account*;
 - **Sub-Tasks:**
 - *Search* for the *Ingredient/Product* or select one, from a *Recipe*'s page;
 - Check the *availability* and the *prices* of the *Ingredient/Product*, from several *Shopping Stores*;
 - Click on the *Button* "Add to Cart", in the *Ingredient/Product*'s page;

- **Exceptions:**
 - *Ingredient/Product not available*, in a specific *Shopping Store*;
 - **Frequency of Use:**
 - Medium;
- (b) *Removal/Deletion of Ingredient/Product to an User's Shopping Cart*;
- (c) *Performing the Checkout of an User's Shopping Cart*;
6. *Interaction* with other *Users*:
- (a) *Follow other User's Account and its Feed*;
- (b) *Unfollow other User's Account and its Feed*;
- (c) *Block other User's Account and any possible interaction from it*;

4 Scenarios' Design

4.1 Scenario #1

Lucy, a *22 years old young girl*, concluding her *Bachelor* studies, in the *University*, wants to *create a simple Recipe of Fricassee of Chicken*.

She already *registered* herself in the *application* previously. Thus, in order to *add/create her Recipe*, she opens the *application* and performs the *login* with her *credentials*.

Then, she can go to her *Profile Page's Feed* and find an option to *add* the *Recipe*.

In order to do it, it will be presented to her a *Form*, allowing her to provide all the *information* regarding to her *Recipe*.

She fulfil the *Form*, providing all the *information* asked about her *Recipe* (i.e., the *Recipe's Title, Sub-Title, Description, Ingredients/Products, Steps/Instructions*, etc.), or even, upload some *Photos* showing the final aspect of it, as also, for each *Step/Instruction* of it, *add* the respective *Timer*.

After she finish the fulfilment of all the information asked in the *Form*, she can, finally, complete the *addition/creation* of her *Recipe*.

Finally, after she do so, the *Recipe* will be added to the *Masterbook application* and will be visible in her *Profile*, as also, be visible in all of her *Followers' Feed*;

4.2 Scenario #2

John, a 38 years old engineer, working remotely from home, due to the current pandemic situation, had to spend more time in home.

He likes to *cook* and has already *added* several *Recipes* to his *Profile*, in the *application*. As he is a bit saturated with traditional *social networks*, he looked for *Masterbook* as a way to *share* with other people about his *hobby*.

He then decides to look in the *added Recipes* in his *Feed* if any are of interest to him. As he didn't like none, he decides to look for the *profile* of *Users* he knows. He find *Paul*, a well-known *User* in *Masterbook*, who is an expert in *Italian Cuisine*. *John* views the latest *Recipe* added by *Paul*, the *Fresh Cheese Pizza*, and decides to *share* the *Recipe* in his *Feed*. Having *no ideas* for the dinner, he decided to make the *Fresh Cheese Pizza Recipe*.

John loved it and was praised by his wife for the delicious *Pizza*. As a way of rewarding *Paul's* imagination, *John* looked for the *Recipe* and decided to give it a *Good Quality Score* for the *Recipe's Review*, and even *commented*, so that other *Users* have a sense of how delicious that *Recipe* was.

4.3 Scenario #3

Marie, a 71 years old elder woman, reformed/retired and with some difficulties of movement, wants to buy some Ingredients/Products needed to cook her husband's preferred food plate, the Greek-Style Baked Cod.

She knows the *Masterbook app* can help her about cooking *Recipes* and *where to buy* the required *Ingredients/Products* for it, *spending the less money possible*, allowing to *compare the prices between several stores*.

She logs in to the *app*, searches about the delicious *Greek-Style Baked Cod*, finds this *Recipes* and checks all the necessary *Ingredients/Products*.

She will need *3 lb Cod Fillet Pieces, 10 Garlic Cloves, 1/2 Cup of Chopped Fresh Parsley Leaves, 10 tbsp of Fresh Lemon Juice, 10 tbsp of Extra Virgin Olive Oil*, among many others *Ingredients/Products*.

She noticed that don't have any *Cod Fillet Piece*, neither any *Chopped Fresh Parsley Leaves* and *Lemons*, at her home.

For each *Ingredient/Product* missing, at her home, displayed in the *Recipe's* page on the *app*, she can *add* it to her *Shopping Cart* and then, the *app* *automatically choose the less expensive of each one of it*, regarding all the *Stores*, in a *range of 2 kms*.

When all the missing *Ingredients/Products* are added to her *Shopping Cart*, she can see the *total money amount to pay*, do the *Checkout* and perform the *online payment, providing her home address*, for the delivery of all the *Ingredients/Products* she bought.

After a while, the *order* of all the *Ingredients/Products* bought by *Marie* will be *delivered* to her home, so, she can finally *cook* the *Greek-Style Baked Cod*, for her romantic dinner with her husband.