TravelMatch
Software User Manual
Version 1.0

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Abstract

This document contains the Software User Manual for the TravelMatch application, which is used to help people find their holiday destination. This application is developed in the Software Engineering Project at Eindhoven University of Technology. This document complies with the ESA software engineering standard [1].
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Chapter 1

Introduction

1.1 Purpose

This document contains the Software User Manual of the TravelMatch application. The purpose of this manual is to let possible users easily understand and use the TravelMatch application in finding their next holiday destination.

Moreover we wrote a manual to the content management system users as well, so the administrators can easily understand how to operate with the database via the graphical user interfacer we provided.

1.2 Definitions and abbreviations

1.2.1 Definitions

Affiliate Network A network that enables you to receive money from customer redirection [18]
Analytics Data The log of analytics events that is recorded and stored on the database.
Android A popular open-source operating system for embedded devices, including smartphones and tablets, created by Google.
Angular JS An open-source web application framework maintained by Google.
Cosine similarity A measure of similarity between two vectors of an inner product space that measures the cosine of the angle between them.
Destination advice The city, and selection of hotels, that is advised to a user after performing one or more interest analyses.
Destination attributes or tags Each destination will have one or more destination attributes with an associated numerical relative value, those attributes cover the same preferences as the DNA attribute.
DNA attribute or tags These are the attributes that the client wants to use to compose the DNA of. In the beginning 10 attributes are chosen and each image shall have a relative numerical value on one or more of the attributes. Attributes can be added or removed later for new and existing images and DNA.
Google Play Store A public repository of free and paid apps for Android, managed by Google.
Guest user An user that does not provide login details but still uses the TravelMatch app.
Hotelstars rating A hotel classification with common criteria and procedures in participating countries to rate a hotel’s quality. See [21].
iLysian Short for iLysian B.V., a software engineering company situated in Eindhoven, Netherlands. The client for the TravelMatch project.
Interest analysis The action the user will do of judging the images.
iOS A popular closed-source operating system for smartphones and tablets created by Apple.
iOS App Store A public repository of free and paid apps for iOS, managed by Apple.
JWT

JSON Web Token: a compact URL-safe means of representing claims to be transferred between two parties, and used in TravelMatch as authentication token, since it is self-validating.

Relational database management system (RDBMS)

A database management system (a piece of computer software that interacts with users, other applications and a database to capture and analyze data) based on the relational model (commonly based on the relational database model)

TCP/IP

A computer networking model and set of communication protocols used on the internet and similar computer networks, including the Transmission Control Protocol (TCP) and the Internet Protocol (IP)

Tinder

A popular dating application for smartphones and tablets featuring a swipe based interface, where a swipe to the left indicates a dislike and a swipe to the right indicates a like.

Travel DNA

A collection of information about vacation preferences of a specific user or, more specifically, one vacation of that user. This information is stored on the server in a table with values representing the respective gain per attribute for each image the user has swiped.

TravelMatch

An application for smartphones and tablets that assists users in planning a vacation. The subject of this project.

TravelMatch team

A team of Computer Science students at Eindhoven University of Technology who will design and implement the TravelMatch application.

User

The user of the app.

Waverunner

Waverunner Search Service by Pyton Communication Services; a search service that provides vacation offers and prices of participating travel agencies.

1.2.2 List of abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GUI</td>
<td>Graphical User Interface</td>
</tr>
<tr>
<td>CMS</td>
<td>Content Management System</td>
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<tr>
<td>API</td>
<td>Application Programming Interface</td>
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<tr>
<td>URL</td>
<td>Uniform Resource Locator</td>
</tr>
</tbody>
</table>

1.3 References

[1] ESA PSS-05-0 Issue 2, Software requirements and architecture engineering process, February 1991


Chapter 2

Overview

TravelMatch is an application designed for the mobile devices such as smartphones and tablets. It is conceived by iLysian B.V. and developed by the TravelMatch development team. The purpose of the application is to assist users in planning a vacation by showing them images from various destinations and hotels or other places to stay. The application employs machine learning and some simple web analytics to build a profile of the user in order to suggest the ideal trip.
Chapter 3

Tutorial for CMS

3.1 Overview

This chapter contains tutorials for CMS users, as the CMS users needs to know how to operate for varies of entries.

Table 3.1 listed all the entries in the CMS and its correlated operations and where is it described in SUM. For the related operations:

- **Add and edit**: views, additions, editions and deletions are supported.
- **Edit only**: views, editions and deletions are supported.
- **Delete**: views and deletions are supported.
- **view only**: only views are supported

In the following sections we will demonstrate how to operate with entries excluding the view only entries.

<table>
<thead>
<tr>
<th>Entry Name</th>
<th>Related operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affiliate feeds</td>
<td>Add and edit</td>
</tr>
<tr>
<td>Trip offers</td>
<td>Edit only</td>
</tr>
<tr>
<td>Trips</td>
<td>Edit only</td>
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<tr>
<td>Image dimensions</td>
<td>Add and edit</td>
</tr>
<tr>
<td>Location tags</td>
<td>View only</td>
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<tr>
<td>Locations</td>
<td>Add and edit</td>
</tr>
<tr>
<td>Swipe images</td>
<td>Add and edit</td>
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<tr>
<td>Tags</td>
<td>Add and edit</td>
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<td>Travel dnas</td>
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<td>Fb app users</td>
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<td>Guest app users</td>
<td>View only</td>
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<tr>
<td>Mail app users</td>
<td>View only</td>
</tr>
<tr>
<td>Pending activations</td>
<td>Delete</td>
</tr>
<tr>
<td>Vacation details</td>
<td>View only</td>
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<tr>
<td>Groups</td>
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</tr>
<tr>
<td>Users</td>
<td>View only</td>
</tr>
<tr>
<td>Tokens</td>
<td>View only</td>
</tr>
</tbody>
</table>

Table 3.1: Entries overview

3.2 CMS log in screen

3.2.1 Functional Description

User can log in with a existed super user account.
3.2.2 Caution and Warning

- If the username is empty or it is incorrect, Figure 3.1(b) will be shown.
- If password is empty, Figure 3.1(c) will be shown.
- If password is incorrect, Figure 3.1(d) will be shown.

![Login screen](a) Login screen ![Login success](b) Login success ![Login wrong](c) Login wrong ![Login error](d) Login error

Figure 3.1: CMS login screens

In Figure 3.1(a) the login page of the CMS is shown. The CMS is accessible via the user’s browser by going to the CMS’s url. It runs best on the latest versions of Safari and Chrome, it also runs on Internet Explorer.

3.2.3 Formal Description

The user enters the correct credentials in the Username and the Password field.

3.2.4 Related

- The overview screen Overview page

3.3 Overview page

3.3.1 Functional description

From here the overview of the database will be shown. All the entry will be listed, As Figure fig:CMS overview screen shown
3.3.2 Caution and Warnings

Not applicable

3.3.3 Formal description

- Click the log out button on the top right of the screen to log out.
- The overview of the entries will be displayed, you can directly add or delete an entry or click on the entry to edit the entry, for the detail of each entry see Table 3.1.

3.3.4 Related

- The log in screen after you log out. See: CMS log in screen
- Trip Offers entry. See: Trip Offers
- Affiliate Feed entry. See: Affiliate Feed
- Trip entry. See: Trip
- Location entry. See: Locations
- Swipe Images entry. See: Swipe Images
- Tags entry. See: Tags
- Pending activations entry. See: Pending Activations

3.4 Trip Offers

3.4.1 Functional description

In this screen you can edit/delete the exist trip offered. As 3.3 shown...
3.4.2 Caution and Warnings

- Adding a new TripOffers object is not allowed, although the django admin system does not prevent you from doing that. See Table 3.1

3.4.3 Formal description

- Click the login button on the top right of the screen to log out.
- Click the individual Entry for editing, click each fields to edit, click the delete button to delete, as Figure 3.7 shown. After you are done, you can either click save and continue to save it and continue editing, or save and return to the Trip entry screen as Figure 3.8 shown.
- Click the entry you wish to delete, and select the delete action in the Action selection menu, then press go, as Figure 3.8 shown.
3.4.4 Related
- The log in screen after you log out. See: CMS log in screen
- The overview screen Overview page

3.5 Trip

3.5.1 Functional description
In this screen you can edit/delete the exist trip. As 3.6 shown

3.5.2 Caution and Warnings
- Adding an new Trip object is not allowed, although the django admin system does not prevent you from doing that. See Table 3.1

3.5.3 Formal description
- Click the log out button on the top right of the screen to log out.
- Click the each individual Entry for editing, click each fields to edit, click the delete button to delete, as Figure 3.7 shown. After you are done, you can either click save and continue to save it and continue editing, or save and return to the Trip entry screen as 3.6 shown.
- Click the entry you wish to delete, and select the delete action in the Action selection menu, then press go, as 3.8 shown.
3.5.4 Related
- The log in screen after you log out. See: CMS log in screen
- The overview screen Overview page

3.6 Affiliate Feed

3.6.1 Functional description
This is for the Affiliate entry, you can add and edit in this entry. See Figure 3.9

3.6.2 Caution and Warnings
Not applicable

3.6.3 Formal description
- Click the log out button on the top right of the screen to log out.
- To delete the affiliate feed, select the feeds you wish to delete, select the action "Delete selected affiliate feeds" and click "Go", as Figure 3.11 shown.
- To add an affiliate feed press "Add affiliate feed" button, and then you will see Figure 3.10 fill in the forms, if you wish to save and leave click “Save”, if you wish to save and continue editing the new feed click "Save and continue editing", if you wish to save and add an new feed click “Save and add another”.
- To edit or remove a feed, click the feed you wish to edit/remove, as Figure 3.12 shown, it is similar to adding affiliate, only you can remove the feed by clicking the "delete" button on the bottom left part of the screen.

![Figure 3.9: Affiliate](image)
3.6.4 Related

- The log in screen after you log out. See: [CMS log in screen](#)
- The overview screen [Overview page](#)

3.7 Locations

3.7.1 Functional description

This is for the Location entry, you can add and edit in this entry. See Figure 3.13

3.7.2 Caution and Warnings

Not applicable
3.7.3 Formal description

- Click the log out button on the top right of the screen to log out.

- From the Location model page the user can click on the "Loc id" of a location to edit the entry, see figure 3.15. Here all the tags are normally listed with their value, but to keep it simple many are left out behind the black bar. The city name, country name and region name can be changed. Also the location can be set to active/inactive via the "Active" checkbox. Below, for each tag in the database, an initial value can be set. This will override the current value of that tag for this location when changed.

All the last row at the bottom of the screen contains extra functions for the location object. Via the red "Delete" button the location, including the tag values for that location, can be deleted. Also "Save and add another" can be used to save the location and redirects the user to the create a new location screen (Figure 3.16). "Save and continue editing" button saves the location and stay on this page for further editing. Finally, the "Save" button will save the location and afterwards the system will redirect you to the location overview.

- The user can select existing items by clicking the box on the left of the location items. If the user selects the top selection box all entries on this page are selected and an extra link to select all entries of this model in the database is added. After the user has specified their selection, the user can choose an action to perform on the selection at the upper right part of the screen.

In Figure 3.14 an example of an selection of deleting certain entries via the "Action" menu is shown.

Actions includes:

- "Delete selected locations": this deletes all image selected from the database.
- "Activate selected locations": this sets the selected locations to active.
- "Update unset tags": this makes sure that the selected vacations have a default tag value for all tags. This function might be useful when partially importing older versions of the database.

- From the location overview screen a new location can be added via the "Add location" button at the upper left side of the page. After that you will be redirect to a page similar to Figure 3.15 but with no tags filled in, see Figure 3.16. From here the user should first fill in the three text fields and check the checkbox. Now the user can add tags values by specifying the tag and setting the initial value below it. The user can also quickly fill in all zero values by clicking on "Save and continue editing" as this will always set all missing values to zero.

![Figure 3.13: Locations screen](image)
Figure 3.14: Location editing example
Figure 3.15: Location editing
3.7.4 Related
- The log in screen after you log out. See: CMS log in screen
- The overview screen Overview page

3.8 Swipe Images
3.8.1 Functional description
In here we can edit/add the Swipe Image model, as Figure 3.17 shown.

3.8.2 Caution and Warnings
not applicable

3.8.3 Formal description
- Click the log out button on the top right of the screen to log out.
- From the CMS overview screen, the user can click on the ”Swipe Images” link to enter the Swipe Images model in the database as seen in Figure 3.17. From here the user can either select entries to perform actions on, editing a existing entry, adding a new entry or download the image. By clicking on the ”Original filename” the browser either opens the original image file in a new tab or download the image, depending on the users browser. Available actions are:
- **“Delete selected images”**: this deletes all image selected from the database.
- **“Update dimensions and tags”**: this removes all instances of different dimensions not in the database anymore and creates instances for missing dimensions for the selected images.
- **“Recreate dimensions”**: this first deletes all instances except the original and then recreates all image dimensions for the selected images.
- **“Activate images”**: this sets Activated to true for the selected images.
- **“Deactivate images”**: this sets Activated to false for the selected images.

• From the Swipe Image model page the user can click on the “Img id” or “Preview” of a swipe image to edit the entry. The user is then redirected to the edit page of an image. This page is similar to Figure 3.18 but with all the image tag values below it (like in Figure 3.15). Here the user can change the image via the button next to “Change:”. The user should upload only high quality images to make sure that the resizing into the different dimensions doesn’t give low quality images. Also the contents of the image should be centered so that the cropping doesn’t make the intentions of the image unclear to the user.

Below, for each tag in the database, an value can be set.

All the last row at the bottom of the screen contains extra functions for the Swipe Image object, similar to the Location. When an image is saved missing dimensions are automatically created.

• From the Swipe Image overview screen a new Swipe Image can be added via the “Add swipe image” button at the upper left side of the page. After that you will be redirect to a page similar to Figure 3.15 but with no initial tag values filled in and a missing preview image.
3.8.4 Related

- The log in screen after you log out. See: CMS log in screen
- The overview screen Overview page

3.9 Tags

3.9.1 Functional description
In here we can edit/add tag model, it can either be an image tag or a location tag, or a vacation tag.

3.9.2 Caution and Warnings
not applicable

3.9.3 Formal description
- Click the log out button on the top right of the screen to log out.
- From the CMS overview screen, the user can click on the "Tags" link to enter the Tags model in the database as seen in figure 3.19. From here the user can either select entries to perform actions on, editing an existing entry or add a new entry.

following are possible actions:
- "Delete selected Tags": this deletes the selected Tags with all the values per location and image from the database.

- Similar to Figure 3.16 but with different fields and no tag values (Figure 3.20).
- Similar to (Figure 3.20) but with some empty fields.
3.9.4 Related

- The log in screen after you log out. See: CMS log in screen
- The overview screen Overview page

3.10 Pending Activations

3.10.1 Functional description
In here you can delete a pending activation. See Figure 3.21

3.10.2 Caution and Warnings

- Adding an new Pending Activations object is not allowed, although the django admin system does not prevent you from doing that. See Table 3.1
- Editing an new Pending Activations object is not allowed, although the django admin system does not prevent you from doing that. See Table 3.1
3.10.3 Formal description

- Click the log out button on the top right of the screen to log out.
- You can delete selected pending activations as Figure 3.22 shown. First select the pending activations you wish to remove, then select the action "Delete pending activations" and then click "Go" Button.
- You can delete a pending activation after you click the entry, then select the “Delete” button on the bottom left part of the screen. See Figure 3.23.

![Figure 3.21: Pending Activation](image1)

![Figure 3.22: Pending Activation Delete](image2)

![Figure 3.23: Pending activation delete detailed](image3)

3.10.4 Related

- The log in screen after you log out. See: CMS log in screen
- The overview screen Overview page

3.11 Extra models

sec:Extra-models-CMS There are many extra models in the admin screen for the user to get a good overview of the contents of the database. These can be used to see what happens behind the scenes and give an idea of what the database consists of.
Chapter 4

Tutorial for application

4.1 Splash screen

4.1.1 Functional Description
When the user opens the app the splash screen appears as seen in Figure 4.1. This takes a few seconds and the app needs this time to prepare for usage. When the app is done loading it’s resources the app redirects the user to the Welcome screen.

4.1.2 Caution and Warning
Not applicable.

4.1.3 Formal Description
Not applicable.

4.1.4 Related
- Redirection to Welcome screen when done (Section 4.2)

Figure 4.1: Splash screen

4.2 Welcome screen

4.2.1 Functional Description
The user lands here when they are not logged in and want to use the app.
4.2.2 Caution and Warning
Not applicable.

4.2.3 Formal Description
The screen is shown in Figure 4.2. From here the user can choose to create a new account, continue using the app with an existing account, or use the guest account. Also, the menu for not logged in users is reachable from this screen.

4.2.4 Related
- The "Continue without account" button gives the continue without account screen (Section 4.3).
- The "Connect via Facebook" button initiates the connect to Facebook action (Section 5.1).
- The "Login" button gives the login screen (Section 4.4).
- The "Register" button gives the register screen (Section 4.5).
- The menu icon opens the menu (not logged in) view (Section 4.6).

![Welcome screen](image)

Figure 4.2: Welcome screen

4.3 Continue without account screen
This functionality is not implemented so only a message is displayed, as seen in Figure 4.3.

4.4 Login screen
4.4.1 Functional Description
Here the user can login using a previously created account.
4.4.2 Caution and Warning

- When the user either doesn’t fill in the email field or doesn’t fill in a email Figure 4.4(d) is shown
- When the user doesn’t fill in the password field Figure 4.4(d) is shown
- When the user enters the wrong password the user cannot be authenticated and Figure 4.4(c) is shown

4.4.3 Formal Description

The user enters their email in the email field. The user enters their password in the password field.

4.4.4 Related

- When successfully logged in the user is redirected to the Vacation Details screen (Section 4.8)
- The top left tab redirects the user to the Register screen (Section 4.5)
- The “Connect via Facebook” button initiates the Connect to Facebook action (Section 5.1)
- The menu icon opens the Menu (not logged in) view (Section 4.6)

4.5 Register screen

4.5.1 Functional Description

From here the user can register a new account via email. After this the user should activate the account.

4.5.2 Caution and Warning

- When a account is created the account is not activated yet. This has to be done by clicking on the link in the activation mail. (see Figure 4.5(e))
- When the user either doesn’t fill in the email field or doesn’t fill in a email Figure 4.5(c) is shown.
4.5.3 Formal Description

In the register screen, as shown in Figure 4.5(a), the user fills in their desired password and email. When the registration is successful Figure 4.5(b) is shown. Also an email (Figure 4.5(e)) is send to the user containing an activation link to activate their account. When the users loses this email the user can simply re-register with the same email and a new activation link will be send to the user. Over time users of the CMS can delete the pending activations. If the user presses on the link in their in-box and the account has no pending activations anymore the link refers to a message informing the user to re-register their account. If the account did have a pending activation the account is automatically activated and the user is notified in their browser.

4.5.4 Related

- When successfully registered the user is redirected to the Login screen (Section 4.4). In this case the email field on the login page is already filled in.
- The top right tab redirects the user to the Login screen (Section 4.4)
- The “Connect via Facebook” button initiates the Connect to Facebook action (Section 5.1)
- The menu icon opens the Menu (not logged in) view (Section 4.6)

4.6 Menu (not logged in) view

4.6.1 Functional Description

From here the user can navigate between screens when not logged in, as seen in Figure 4.6

4.6.2 Caution and Warning

Not applicable.
4.6.3 Formal Description

The user presses the items in the menu to go to the corresponding views. The menu disappears when the user presses on the screen left of the menu, when a item is pressed or when the user presses the cross in the top right corner.

4.6.4 Related

- The first item in the menu redirects the user to the Login screen (Section 4.4)
- The second item in the menu redirects the user to the Register screen (Section 4.5)
- The third item in the menu redirects the user to the About screen (Section 4.7)

4.7 About screen

4.7.1 Functional Description

Here you see some extra information about the company that distributes the app with the contact information, as seen in Figure 4.7

4.7.2 Caution and Warning

Not applicable.
4.7.3 Formal Description

Not applicable.

4.7.4 Related

- The menu icon opens the **Menu (not logged in) view** (Section 4.6)

4.8 Vacation Details screen

4.8.1 Functional Description

From here the constrains of the holiday can be filled in.
4.8.2 Caution and Warning

When a field is not valid the error dialog containing information to where the error came from and how to fix it, as seen in Figure 4.8(b). The fields are only valid when these conditions are met:

- The arrival date must be after the departure date.
- The budget must be at least 1.
- The amount of adults must be at least 1
- The amount of children must be at least 0
- No field can be left empty

Constrains

- It is only possible to enter valid dates by the native date input mechanism of the device
- It is only possible to enter 0, 1, 2 or 3 in the flexibility fields via a native dropdown menu
- It is only possible to numbers in the budget input field via the native number field of the device
- When the surprise me check box is activated the budget field automatically disappears.
- When the surprise me check box is deactivated the budget field automatically reappears.

Warning

The age at which someone is considered to be an adult can vary per hotel offer. This has to be checked before booking the holiday.

4.8.3 Formal Description

Here the user presses each field and fills in the desired values (see Figure 4.8(a)):

"Arrival and departure" These specify in what range of departure dates and arrival days the hotel offers must be given.

"Flexibility" This specifies how many days an arrival or departure data may deviate from the specified dates.

"Budget" Here the user can either specify a budget the hotel offers must constrain to or select the surprise me check box to not constrain hotel offer to a budget.

"Travel group" Here you specify the amount of people the booking offers should support. These are split up in adults and children, most hotel offering consider persons from the age of 18 as an adult.

When the user is done the "Start advice" button is pressed to start the advice. When a field was not valid the user then gets a dialog, like Figure 4.8(b) The user then presses ok and fixes the error. When all field are valid the "Start advice" button redirects to the Swipe screen.

4.8.4 Related

- The menu icon opens the Menu (logged in) (Section 4.9)
- When everything is filled in correctly the "Start advice" button redirects the user to the Swipe screen (Section 4.11)
4.9 Menu (logged in)

4.9.1 Functional Description

From here the user can navigate between screens when not logged in, as seen in Figure 4.9.

4.9.2 Caution and Warning

Not applicable.

4.9.3 Formal Description

The user presses the items in the menu to go to the corresponding views. The menu disappears when the user presses on the screen left of the menu, when a item is pressed or when the user presses the cross in the top right corner.

4.9.4 Related

- The first item redirects the user to the Vacation Details screen (Section 4.8)
- The second item redirects the user to the Profile screen (Section 4.10)
- The third item redirects the user to the About screen (Section 4.7)
- The fourth item redirects the user to the Welcome screen (Section 4.2)

4.10 Profile screen

4.10.1 Functional Description

From here the user can adapt its profile.

4.10.2 Caution and Warning

When a field is not valid the error dialog containing information to where the error came from and how to fix it.
Constrains

- It is only possible to enter valid dates by the native date input mechanism of the device
- It is only possible to choose between 'male', 'female' and 'not specified'.

4.10.3 Formal Description

Here the user presses each field and fills in the desired values (see Figure ??):

“Name” Here the user can specify or edit their name.

“Gender” Here the user can specify or edit their gender.

“Birth date” Here the user can specify or edit their birth date.

When the user is done the save changes “Save changes” button is pressed to post the form.

4.10.4 Related

- The menu icon opens the Menu (logged in) (Section 4.9)
- When everything is filled in correctly the ”Save changes” button sends the data to the server.

4.11 Swipe screen

4.11.1 Functional Description

Here the user can like or dislike images.

4.11.2 Caution and Warning

Not applicable.
4.11.3 Formal Description

The user can like or dislike images by either pressing and dragging them to the left (dislike) or to the right (like). Alternatively, the user can press the red button with the cross on the bottom right to indicate a dislike, or press the green button with the heart to indicate a like. On the bottom, a progress bar keeps track of the number of images that have been swiped. The header at the top will be hidden automatically when entering the Swipe screen. To toggle the header, the user can press the button in the top middle. When the interest analysis is complete, the user needs to wait two seconds until the results are in, before the results are shown. In the meantime, a calculation animation is shown.

4.11.4 Related

- The menu icon opens the [Menu (logged in)](Section 4.9)
- After 20 swipes the user is automatically redirected to the [Recommendation screen](Section 4.12)
4.12 Recommendation screen

4.12.1 Functional Description

The recommendation screen gives an overview of hotel offers for a certain recommended location, as seen in Figure 4.12(a).

4.12.2 Caution and Warning

- When the user leaves the Recommendation screen, the advice is lost.

4.12.3 Formal Description

This screen is automatically shown when the swiping of images is completed. At the top the location of the advice is displayed. Right of the location a button is displayed to get a second advice, if the first advice is not of interest to the user. Below a list of bookable holidays is given. For each holiday a name, star rating, user score and price per person is shown. When the user likes a holiday it can be opened in a Hotel view (Section 4.13) by pressing on the image. If the user requests a second advice (Figure 4.12(b)) is displayed. This screen contains an extra button that lets the user do a second interest analysis. This returns the user to the interest analysis screen and lets the user swipe another 20 images to gather more data and give a better advice. When the user returns back to the first recommendation this button then stays on the screen.

4.12.4 Related

- The menu icon opens the Menu (logged in) (Section 4.9)
- When the user presses on a hotel the Hotel view (Section 4.13) is opened for that hotel
- When the user presses the continue swiping button on the second recommendation the user is redirected to the Swipe screen (Section 4.11)

![Figure 4.12: Vacation Details screens](image-url)
4.13 Hotel view

4.13.1 Functional Description
From here the user can find more info about a hotel and book their vacation. (see Figure ??)

4.13.2 Formal Description
In the Hotel view a header is displayed. The header contains, from left to right; the hotel name, the hotel star rating, the user rating and price per person. Below this is an image of the hotel and a more detailed description of what the holiday will look like. At the end of the description is the “Book now” button. This enables the user to book the holiday (see Section 5.2).

4.13.3 Related
- When the user presses the red “Book now” button the user is redirected to Book a hotel action (Section 5.2)
- The user remains in the Recommendation screen (Section 4.12)

![Hotel view](image)
Chapter 5

Actions related to the application

5.1 Connect to Facebook action

5.1.1 Functional Description

When this action is performed the user wants to authenticate via Facebook.

5.1.2 Caution and Warning

- When the user fails to authenticate by either cancellation or wrong credentials Figure 5.1(b) is shown.

5.1.3 Formal Description

When the user has the Facebook app installed this app is called for authenticating the user. When the user does not have the Facebook app installed the user is redirected to the facebook website. In both cases the user should login with Facebook, if necessary, and authenticate the app. When the app is authenticated for Facebook the user returns to the app and sees Figure 5.1(a). If the user then presses ok the user is logged in and is redirected to the Vacation Details screen. If the procedure is canceled by the user the user is also redirected to the app and then sees Figure 5.1(b). On pressing Ok the dialog disappears.

5.1.4 Related

- When the authentication is successful the user is redirected to the Vacation Details screen (Section 4.8).

Figure 5.1: Facebook screens
5.2 Book a hotel action

5.2.1 Functional Description
This opens the vacation offer on the ArkeFly website in the user's own browser.

5.2.2 Caution and Warning
- The booking can have different interpretations of when a person is considered an adult, this has to be manually checked before the vacation is booked.

5.2.3 Formal Description
The button is a link to the hotel entry on the ArkeFly website. The button thus opens the user's default web browser and the app remains active in the background. When the user closes the browser the app reappears.

5.2.4 Related
- A hotel can be booked from the Hotel view (Section 4.13)