**Template Project-Specification**

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**PHASE 1**

**Overall goal for Phase 1 is to allow users to register on the platform and to have preview of the marketplace. Registered user will be able to explore existing marketplace where will be presented themes for mobile devices and smartwatches. Exploring different themes user will have chance to preview separate themes and to see details of each of them.**

**System consist of following components:**

1. WEB Application
2. Backend
3. Mobile applications (Android and IOS)

**Vocabulary:**

* Theme - background picture for mobile phone and smartwatch
* Watch - smart watch device
* Phone - phone where theme will be installed
* Mask - picture of some specific model of phone or watch that is used for visual demonstration

# Backend development

Backend will be used for controlling web services that will be used for communication between web application, mobile application and watch application (in the second phase). In backend will be created databases:

* User entity
* Theme entity
* Model entity

Following web services will be developed:

* Login
* Registration
* Forgot password
* User logic
* Theme logic

## 1.1 User logic

Implementation of user logic include web services and database entity development.

Users model include:

1. User type (Admin//Basic user),
2. ID of User
3. Name
4. Password
5. Email
6. Photo
7. Facebook
8. Theme

## 1.2 Theme details

As Developer i want to have database entity created for describing all items of theme.Theme is the main product of the platform.

It will be developed web-service:

1. GET all themes - Webservice will deliver all themes
2. GET theme by category-Webservice will deliver theme by wanted category
3. GET-theme by device-Webservice will deliver theme by wanted device

Theme model is described with:

1. ID
2. SmartWatch/Mobile device
3. Name
4. Description
5. Category
6. Tags
7. Round/Square
8. OS
9. Background image (Dark/Light)
10. Features
11. Owner

## 1.3 Web service and API creation

As a Client i want to have API documentation written where all Methods will be listed for the app. It will be used Swagger as method of structuring and publishing documentation.

Login:

* GET Valid User-authorization

Registration

* POST-User details

Forgot password

* GET - last password

User logic

* GET-User details
* GET-List of Users

Theme logic

* GET-list of all themes
* GET-details of theme
* GET-theme by category
* GET-theme by Device

## 1.4 O-Auth Security

O-Auth Security will be used for authentication of users. By using of this method system will be protected from unauthorized access.Oauth is an open protocol to allow secure authorization in a simple and standard method from web, mobile and desktop applications. HTTPS will be used as authentication method for website’s protection of the privacy and integrity of the exchanged data

# 2. WEB Application

Web application will allow all users (registered and unregistered) to explore marketplace. Home screen of web application will contain list of themes shown in grid view (9 themes per page), grouped in categories. Within the category, themes will be sorted by rank. Every category “header” will contain link “show more” which will open Theme Category Page.

Paging web service will be implemented. Whenever User scroll page to see themes that are not previously loaded, web service for paging will be called and it will deliver new 18 items grouped into 6 categories.

Theme model include:

* Preview of background picture shown on selected Phone and Watch Mask (dark/light versions)
* Possibility to change Phone and Watch Mask to compare how visually fits to chosen theme
* Name of the author of theme
* Name of category it belongs to

When user clicks on some theme, Detailed Theme page is opened, that contains:

* Title of theme
* Explanation of the theme
* Category and tabs
* Info about author and grid view of other themes created by the author
* Dark/Light versions of theme
* Possibility for reporting theme
* Options for sharing theme

Users that want to rank theme or to send it to Phone and Watch need to be registered. Login to the web application is possible for registered users (that have validated account), or to those that login via Facebook or Google.

Supported resolutions are all bigger than 800x600 pix, and supported browsers are Chrome, FirefoxQuantum and Safari.

## 2.1 Login/Registration page

As User i want to be able to register and to login to application to be able to explore Themes.

To register, User need to enter following data:

* Name (obligatory),
* Email (obligatory),
* Password (including re-enter password)
* Twitter
* Instagram
* Facebook

After completing profile page user will receive email with information about successful registration.

For 1st phase it is planned to have only basic users (premium users will be included in next phases). Functionality will include validation of entered data and error handling.

Validation includes:

* Email - must be unique in database
* Password must be at least 7 characters long (a-z, A.-Z, 0-9)

Error handling includes all scenarios in which application cannot work properly:

* Checking of entered password is in right format (in both fields must be entered same password)
* Lost connection with server
* Lost internet connection
* Existing user (existing email in user database)

On Login screen after entering Username, appears field for entering password. User can login via Facebook and Google account. After choosing Facebook or Google account, user need to give permission to the application to use data contained in Facebook and Google account (name, profile picture, email etc). When permission is given, the application will collect all necessary data and to load home page of web application.

## 2.2 Forgot password

As User i want to be able to recover my password to be able to sign in.

User recover password by click on link “I forgot my password”, shown on bottom Login page. User gets the email with link “Recover my password”, and after click on it Password recovery page is opened, where user can enter new password (also need to re-enter password).

## 2.3 Profile page (view/edit)

As User i want to be able to edit my personal data and info about my mobile Phone and Watch i own.

Activated accounts can be edited, and all data, except email can be modified, and those are:

* Name
* Twitter account
* Facebook account
* Instagram account.

After user account has been activated, home page will be loaded, and pop-up will appear that inform user about missing information. It can be completed by opening profile page and entering necessary information about OS, producers and models of phone and watch user has. If user want to skip this step, he will be asked to enter models of Phone and Watch when click on “Send to phone” button.

## 2.4 Theme selection

All themes can be searched by:

* Choosing category from navigation menu
* By entering keyword in search field
* By click on Tag that exist in theme details page

Results of search are shown in gridview, divided to separate categories, where themes are sorted according to rates.

By choosing some category (from navigation, or by click on “show more” on category header) Theme category page is loaded. It contains all themes belonging to selected category, sorted by rates.

User is able to select model of Phone and Watch he has, in order to check how selected theme fits to his devices.

## 2.5 Theme details

As User i want that every theme is described with OS, category it belongs to and tags.

Theme model include:

* Shape of watch and dimension of phone
* Categories it belongs to
* Tags that describe theme more precisely
* Author of the theme
* Other themes created by the author
* Rates

## 2.6 Send to mobile

As User I want to be able to send selected Theme to mobile application (sending theme to watch is planned to be implemented during the second phase).

User sends theme to Phone by clicks on icon “Send to mobile” (In the first version this button is disabled).

2.7 Content management system

As a Administrator User i will have a option to manage my Web application by creating new content, change/edit existing content or delete it.

Admin User will have option to login on separate page as ADMIN user by entering Email address and created password. First User will be hardcoded in database which means that there will not be Registration process.

When User login into app he will be able to enter Home screen where from left side he will have menu for sections:

1. Theme details
2. Watch layout details
3. Mobile phone layout details
4. User details

# 3. Mobile application (IOS/Android)

Mobile application will be developed for IOS and Android OS.

Supported models are:

* Supported IOS OS are all versions 10+
* Supported Android OS are all versions 5.01+

While application is starting, splash screen will be shown. First screen, after splash screen, is login page. Users will need to be registered, or to login via Facebook and Google, to enter the application. Password recovery will be implemented.

Home screen of web application will contain list of themes shown in grid view (9 themes per page), grouped in 3 categories. Within the category, themes will be sorted by rank. Additional themes that belongs to certain Category is loaded after click on show more button. Paging web service will be implemented. Whenever User scroll page to see themes that are not previously loaded, web service for paging will be called and it will deliver new 18 items for one category.

Theme model include:

* Preview of background picture shown on selected Phone and Watch Mask (dark/light versions)
* Possibility to change Phone and Watch Mask to compare how visually fits to chosen theme
* Name of the author of theme
* Name of category it belongs to

When user clicks on some theme, Detailed Theme page is opened, that contains:

* Title of theme
* Explanation of the theme
* Category and tabs
* Info about author and grid view of other themes created by the author
* Dark/Light version of Theme
* Option for reporting Theme
* Sharing Theme

Users that want to rank theme or to send it to Phone and Watch need to be registered.

## 3.1 Login/Registration page

To register, User need to enter following data:

* Name (obligatory),
* Email (obligatory),
* Password (including re-enter password)
* Twitter
* Instagram
* Facebook

User will login with his email and password. It will also be possible for user to login by using his Facebook or Google account.

After completing profile page user will receive email with information about successful registration. For 1st phase it is planned to have only basic users (premium users will be included in next phases). Functionality will include validation of entered data and error handling.

Validation includes:

* Email - must be unique in database
* Password must be at least 7 characters long (a-z, A.-Z, 0-9)

Error handling includes all scenarios in which application cannot work properly:

* Checking of entered password is in right format (in both fields must be entered same password)
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On Login screen after entering Username, appears field for entering password. User can login via Facebook and Google account. After choosing Facebook or Google account, user need to give permission to the application to use data contained in Facebook and Google account (name, profile picture, email etc). When permission is given, the application will collect all necessary data and to load home page of web application.

## 3.2 Phone and Watch selection/change selected

As User i want to be able to select OS and model of phone and watch I have, in order to narrow the search criteria for Themes.

If User has already defined Phone and Watch he possesses (in Web application), there is option Change device he has.

## 3.3 Forgot password

As User i want to be able to recover my password to be able to sign in.

User recover password by click on link “I forgot my password”. User gets the email with link “Recover my password”, and after click on it Password recovery password recovery page is opened, where user can define new password (also need to re-enter password).

## 3.4 Profile page (view/edit)

As User i want to be able to edit my personal data and info about my mobile Phone and Watch i own.

Activated accounts can be edited, and all data, except email can be modified, and those are:

* Name
* Twitter account
* Facebook account
* Instagram account.

After user account has been activated, profile page will be opened and user will be asked to enter necessary information about OS, producers and models of phone and watch he has. If user want to skip this step, he will be asked to enter models of Phone and Watch when click on “Send to phone” button.

## 3.5 Navigation drawer

Navigation drawer will be oppened by click on “hamburger” in upper left corner, or by swipe from left edge of screen to the right. It will be closed by swipe in opposite direction or by click “back” button (on Android).

It will contain:

* Profile picture
* Search themes
* Profile page
* Logout.

## 3.6 Theme details

As User i want that every Theme to be described with OS, category it belongs to, tags and characteristics.

Theme model is described with: Name, Description, Category, Tags, Round/Square, OS, Background image, Features, Owner, XML/JSON file. Mobile phone and smartwatch models are prescribed with: OS, Picture, Producer, Model, Round/Square.

User will be able to rate every theme.

Theme model include:

* Shape of watch and dimension of phone
* Categories it belongs to
* Tags that describe theme more precisely
* Author of the theme
* Other themes created by the author
* Rates
* Report theme
* Share theme

Time dynamic of the project:

