



TSBank

Time and Skill Bank for Active Aging

D3.2 Mobile Apps

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Document Context

Role of the Deliverable

This deliverable presents the user interface changes of the platform when used through mobile devices. The criteria and considerations used to perform, and these changes are reported in this document and available on the software outcome from D3.4.

Relationship to other project deliverables

Deliverable	Relation
D2.5	<p><u>Title:</u> Base software</p> <p><i>The end-user requirements represents the guidelines on which the development team will be using to develop the Base Software of the platform.</i></p>
D3.4	<p><u>Title:</u> System content</p> <p><i>The software from D3.4 is the major outcome of this WP from where the Business Logic and Framework are explained in this present document.</i></p>

1. Project Description

1.1 - General Description

The core concept of the TSBank is to give the elderly a way to use their time and skills in a way that is useful to society, enabling them to be active and feel needed, which will greatly contribute to their well-being and reduce their dependence on the caregiving infrastructure.

The matching process follows a series of steps to ensure a correct match is made:

1. The elderly register with the online tool via a simple interface and inserts the tasks they are willing to help on, thus ensuring they are adapted to their capabilities.
2. People looking for a specific service looks in the platform, and the system matches their request with the available elderly support work, putting both in contact.
3. Once the support is done both parties are requested to vote/comment on each other, creating a "trust rating" that enables future help requesters to make a better selection.

The TSBank project is built upon the concept of helping the elderly help others, in the process improving their self-esteem and social engagement, which in turn improves their wellbeing.

While existing social networks can also be used to provide the proposed matching of volunteer work/needed service, such solutions are too generic and difficult to use for the suggested target demographic. The TSBank solution differs from them in that it is focused on the elderly and their volunteer work, allowing to have a greatly simplified interface and more efficient match-making capabilities.

1.2 - System Description

TSBank will develop, validate, and deploy an online platform – silverskills - that allows the elderly to volunteer their skills and time to perform work on a set of areas. People looking for support can then consult the platform for volunteer elderly that match the sought needs, and the platform puts both parties in contact.

The TSBank platform will be built on a modular system, where there's a single base core of features on top of which there are a series of modules dedicated to specific volunteer work areas. The platform can be expanded to include virtually any area for the elderly to volunteer on, while the TSBank project will implement three areas to serve as the start points for the system: Tourism, Pet Sitting and Consultancy. With these three modules, TSBank contributes for an increase of the quality of life, autonomy and participation in social life of elderly people. At the same time, it serves as a starting point for self-confidence in the use of ICT tools through the use of perception of knowledge and experience transfer by making skills and competencies visible in local communities, boosting elderly acceptance and perceived value of ICT solutions. Other important aspects of the system will be the usability and design, which will have to be developed according to the limitations of the elderly users.

2.Introduction

This document presents the mobile apps developed for different devices of the online platform developed under the TSBank project for active ageing.

This document has the objective to explain how the platform will running outside of the Computers' environments.

From the preliminary research made on the WP2 and considering also new market trends on the use of Smart TVs for apps, the specific range of end users which TSBank is targeting for the volunteers demand the platform to be available on different devices with different screen sizes, being the devices with bigger screens as the Smart TVs an important target to be aimed by TSBank.

Moreover, the fact that the platform involves performing activities outdoor which demands or invites the usability to be prepared for new trends and mobile devices to an efficient and continuous service monitoring by the users.

The web apps (apps with responsive web design enabling the access to the platform from different devices) will allow to both user parties (beneficiaries and volunteers) use the platform in the devices that are preferable in their daily life.

3. Platform Responsiveness

The platform developed on the website can be accessed on the computer but also on any other device that has a browser and internet connection. Nevertheless, the layout and development should respond to the user's behavior and environment based on the platform and screen size. For this reason, and to respond to TSBank needs, it will be developed web apps for the platform to be available in different devices.

If a website can adapt to the user's preference based on the device that is using, then it is not needed a different design and development phase for using in different devices. In order to have an automatic adjustment is required to have a flexible grids and layout, images and CSS media queries.

First, we need to define which devices we are targeting. The Website will be obviously accessed by a computer (desktop or laptop) and mobile devices. The smart tv market has been increasing over the last years and it is possible that in the near future will also be an important market to target by many product launches.



Figure 1 – Responsive Web Design or Layout

For the development of a silverskills web app, it is being used Bootstrap version 3.3.7. The reason for not using the new version 4 is because the selected version is more stable. The version used is already responsive and mobile friendly from the start, providing better control over the layout as well as how it will be rendered on different types of devices like mobile phones, tablets, desktop and laptops, large screen devices as smart tv's, etc.

Bootstrap- What it is?

Bootstrap is a free and open-source front-end (only) web framework for designing websites and web applications. It contains HTML and CSS-based design templates for many interface components, plus JavaScript extensions. Has the Bootstrap official website states, Bootstrap includes a responsive, mobile first fluid grid system that appropriately scales up to 12 columns as the device or viewport size increases. It includes predefined classes for easy layout options, as well as powerful mixins for generating more semantic layouts.

In order to the interface be displayed correctly, to visualize correctly the images, the text to be fitted inside the respective boxes and the size of the sections to be presented according to the size of the screen device it is needed to make some adjustments on the backend side. Rows, Columns, Grid classes, gaps between columns contents and margins must be adjusted with proper alignments.

4. Evaluation Tests

To demonstrate the responsiveness to different devices, below it is listed images of the Homepage in laptop, mobile phone and tablet.

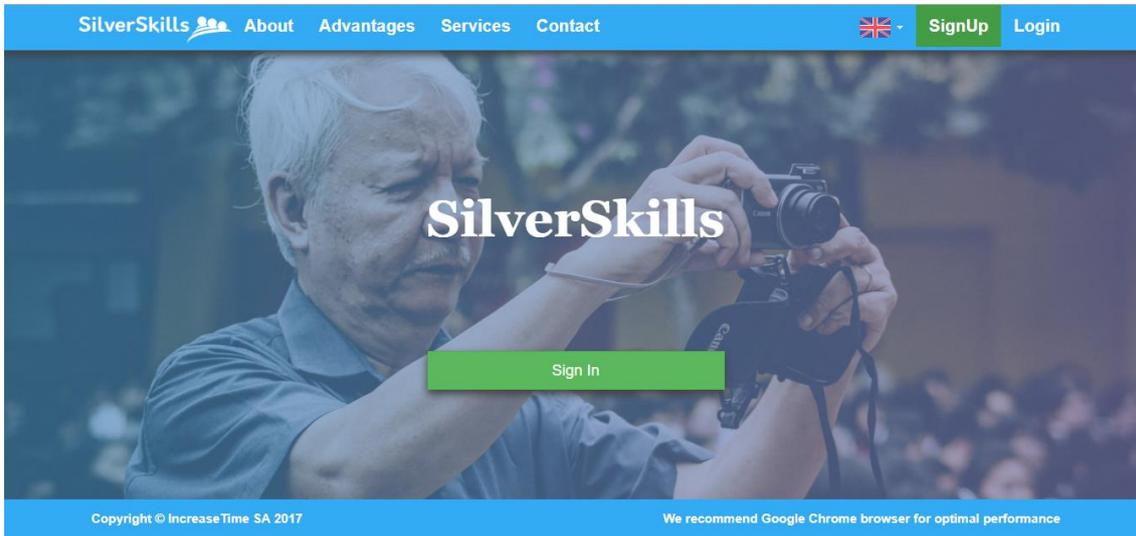


Figure 2 – Home Page on Laptop

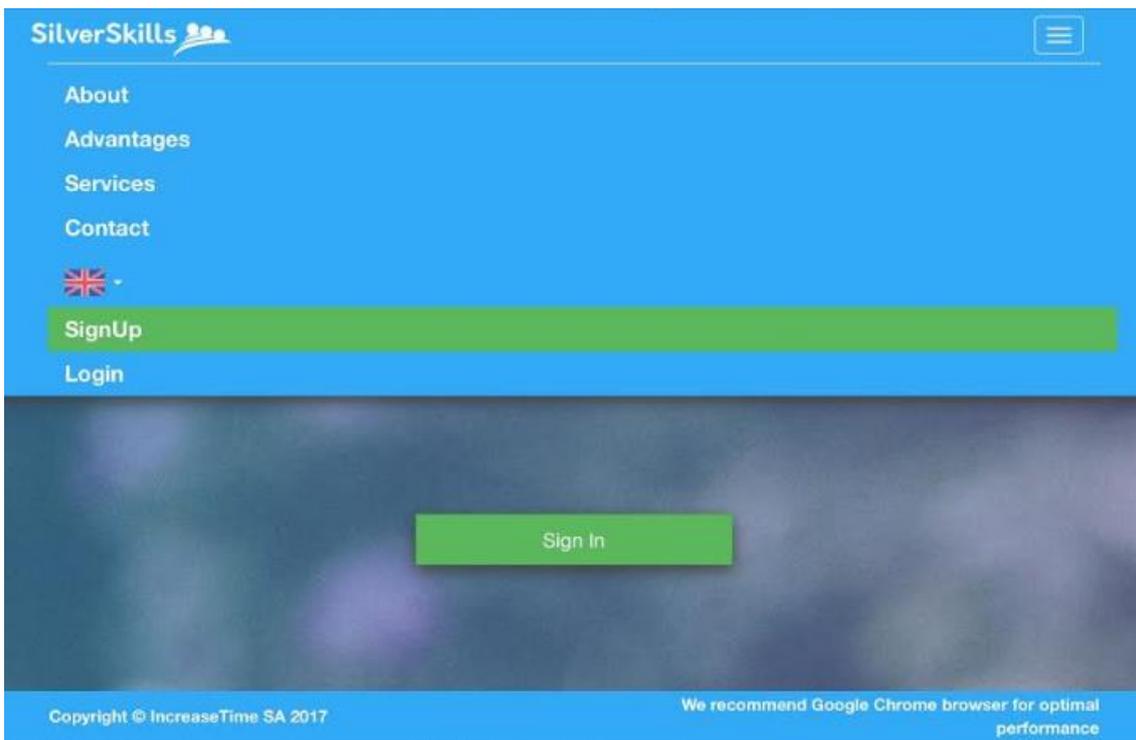


Figure 3 – Home Page on the iPad

It is necessary to adapt the layout present on the screen considering the type of device and its screen size. As it is presented above in Figure 2 and 3, the main menu is changed according if the user is using a laptop screen size (between 14" and 15" screen size) or a tablet as the iPad (9").

Through a responsive behavior of the platform, it is necessary to adapt the code on the classes, by preparing a different size of tables and text to be shown.

In here, also the Login button is adapted from the Bootstrap buttons, allowing the size of buttons to be responsive to the device used, changing automatically to become adjustable to read and click according to the screen size.

Besides the menu, the layout of the content presented below is also significantly different from larger screen to smaller screen devices.

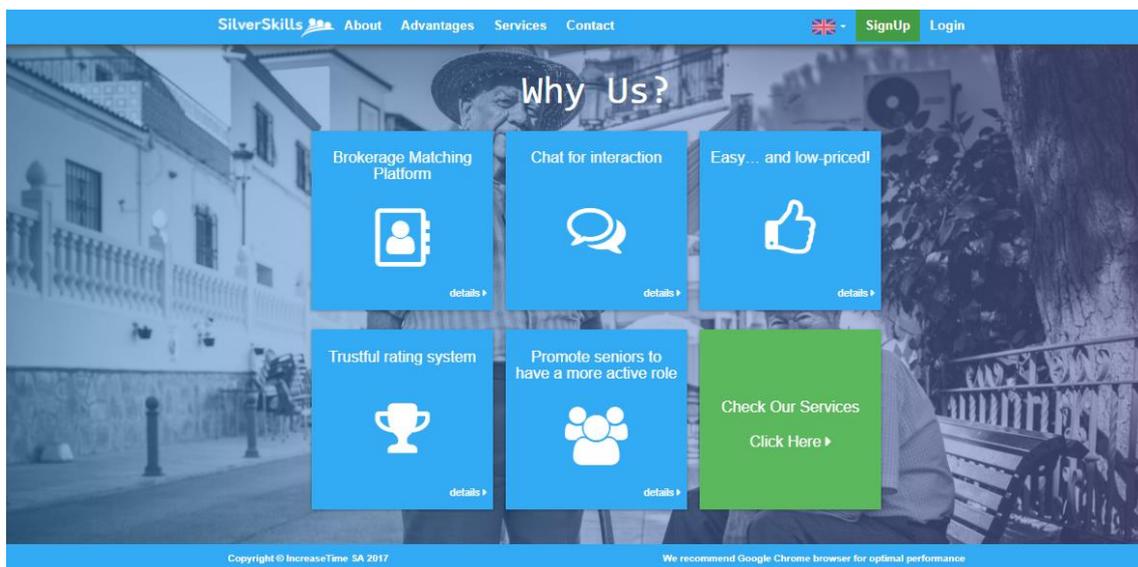


Figure 4 – Advantages on the laptop

Another change needed to implement was the presentation of the platform advantages. These advantages, presented with a question on why should the users should join silverskills, are presented in 2 rows and 3 columns of six cards (boxes) of advantages. But if we access to the mobile version, the layout without the adjustments would be hard to read and understand the type of information which is been present. After the web app development for a responsive design, the structure of the presentation is changed according to the size of the mobile version, and can either be presented in 3 rows and 2 columns of cards for the bigger sizes (Figure 4) or 1 column only for presenting the 6 cards in six different lines (Figure 5).



Figure 5 – Advantages

Similar to the page restructure mentioned above on the home page at the Advantages section, the registration section is also restructured presenting the user types in one column instead side by side. The Figure 6 demonstrates the Registration section in small screen devices as smartphones.

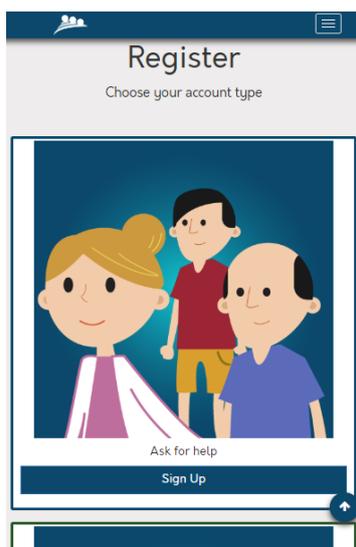


Figure 6 – Registration

The Figures 8.1 and 8.2 below presents how the user profile is shown in smaller screen devices - all the spaces are reduced, optimising the visualisation of the images and the boxes containing the text content. The usability on the platform is then not affected, as the display of the information is kept with integrity and in fully operational.

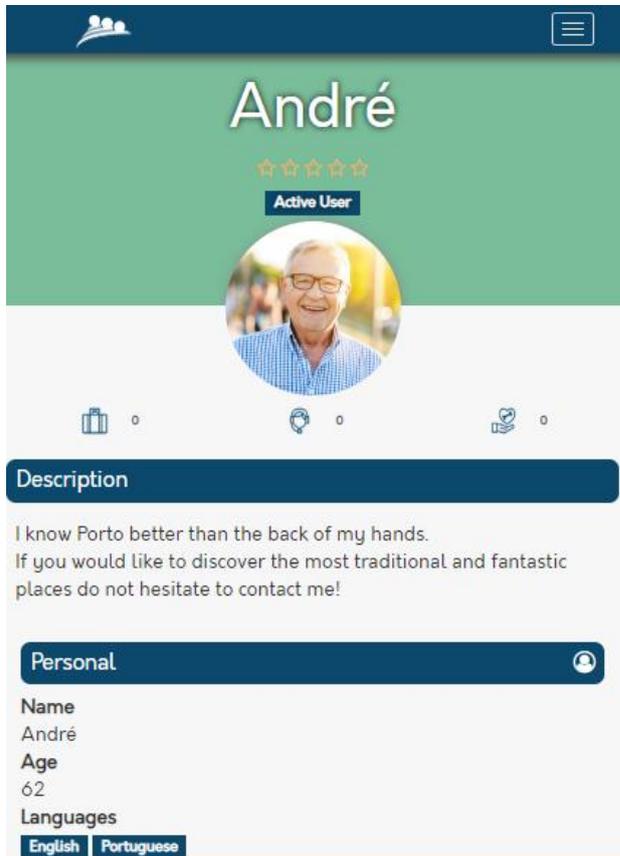


Figure 8.1 – User Profile (upper section)

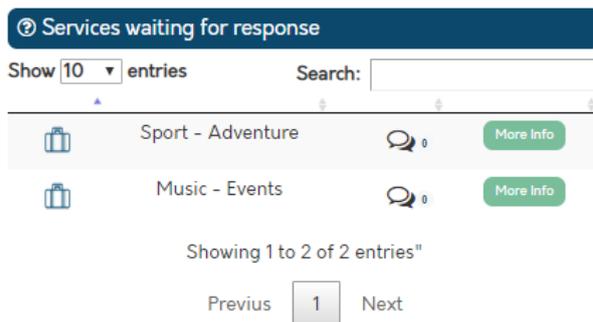


Figure 8.2 – User Profile (lower section)

Regarding the page for each service, the interface offered by silverskills in smaller screen devices, presented on the Figures 9.1 and 9.2, is similar to the profile page. From the change

on the menu which was described before and is present on each single page, the page presents the icon of the respective service - on the example below presents the briefcase icon identifying that is related to the tourism service, not presenting the image of the service as presented on 9.3 (laptop/desktop version), turning the interface experience more simplistic on the smaller screen sizes.

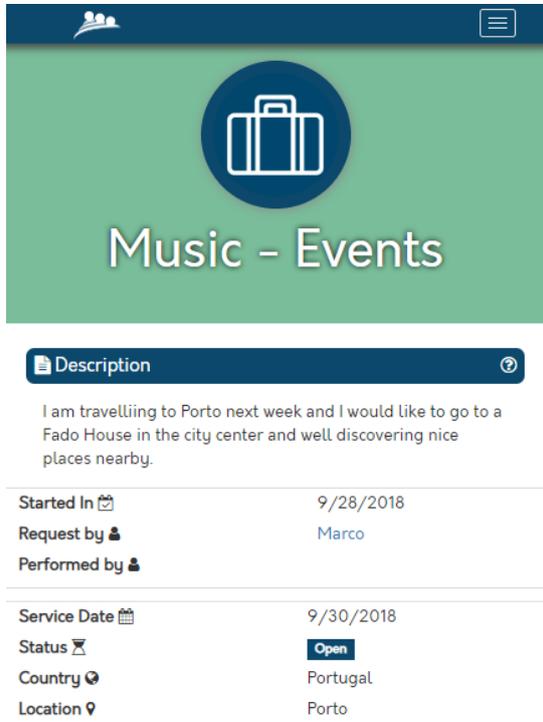


Figure 9.1 – Service example (upper section) - small screen device

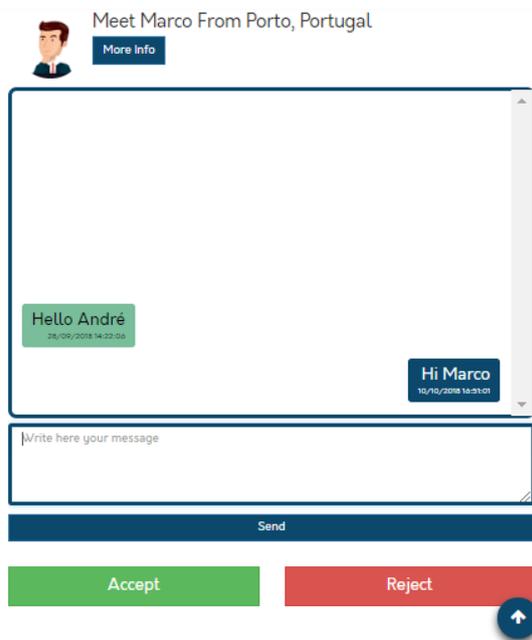


Figure 9.2 – Service example (lower section) - small screen device

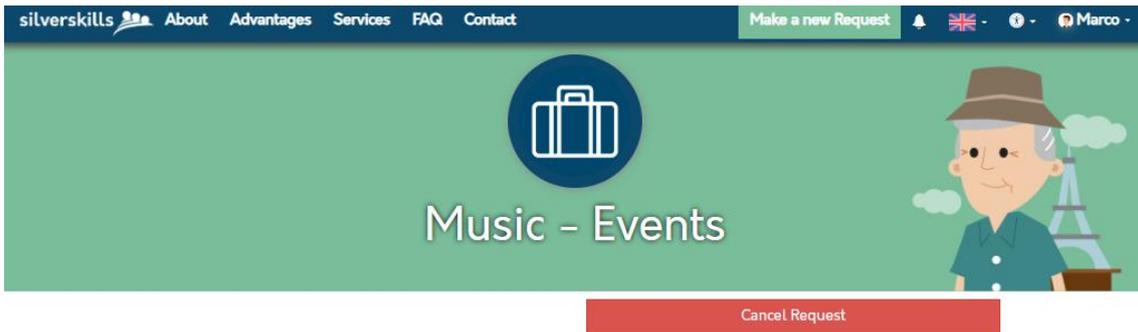
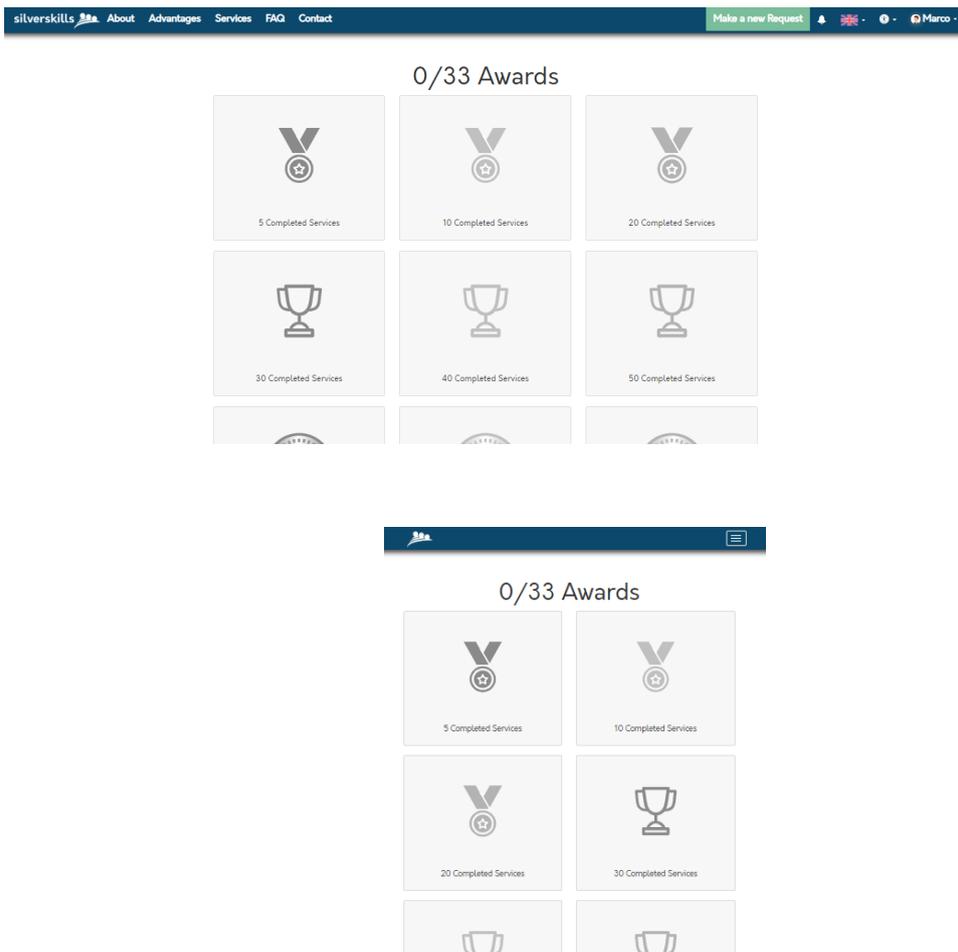


Figure 9.3 – Service example (upper section) - large screen device

The interface of Gamification to the different sizes, presenting on different screen devices, large screen devices on laptop/desktop devices, medium size devices on tablets and smaller screen devices on smartphones. Again, besides the main menu which is shown in an extended version for larger screen sizes, the menu button is presented to smaller devices, the number of awards is presented considering the screen size available. As the device own a smaller screen size, the less number of awards are presented on the same line, so the prize can be clearly identified with the icon and description.





0/33 Awards

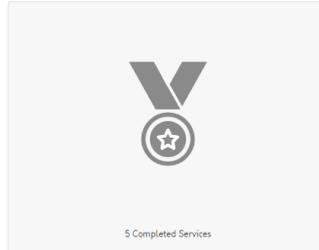


Figure 10 - Different visualizations of the Awards Page

5. CONCLUSION

This report shows the adjustments made on the platform related to the web responsiveness and the differences between accessing the platform from small screen and large screen devices. By using bootstrap and following the web accessibility standards both from user requirements and Web Content Accessibility Guidelines, silverskills platform offers to the user, on devices with different screen sizes, an enriched experience from accessibility and web responsiveness perspectives.