ELECTRONIC HEALTHCARE WEBSITE Designing User Interfaces and Graphics

Godeanu Lucian-Florin YEAR IV IS 3.1

Academic year 2023-2024

Electronic health services are revolutionizing health management by providing quick and convenient access to medical information. These include telemedicine, online consultations with specialist doctors, appointments and medical follow-up through digital platforms. Through advanced technology, patients benefit from efficient diagnosis, personalized health management and direct communication with medical professionals.

I chose to develop a medical web application because I believe it brings major benefits by providing quick access to medical information, efficient appointments, health monitoring and direct communication with doctors. Thus, **it simplifies health management**, promoting faster and personalized medical services for users.

To analyze **the code** related to the web application, access the link : <u>godeanulucian/ehealth-angular (github.com)</u>, and for **testing**, access the link : <u>eHealth (godeanulucian.github.io)</u>.

The application is made from scratch, without any templates. It consists of four web pages: the main page, the page for medical appointments, the page for presenting laboratory tests and the page for checking the stock of drugs. The technologies used to build the website are Angular, Typescript, HTML, CSS, Bootstrap and Reactive Forms.

Gray, white and blue colors are excellent choices for a medical website from an aesthetic point of view because of their meanings and psychological effects. Gray conveys professionalism and poise, suggesting confidence. White symbolizes purity and cleanliness, suggesting medical safety. Blue is associated with calmness and confidence, creating a relaxing and healing atmosphere. This combination provides a clean and professional look, instilling confidence in users.

To create an efficient and user-friendly web experience, I tried to adapt to **Nielsen's heuristic principles,** namely :

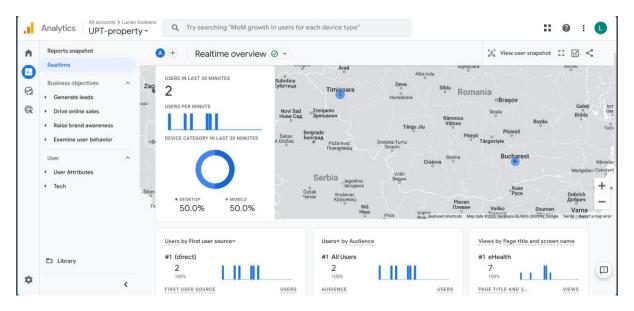
- 1. Visibility of system status: The interface displays a navigation panel home pages, appointments, laboratory tests and pharmacy inventory, highlighting the page the user is on
- 2. Consistency Interface elements (buttons, menus) have the same structure and appearance throughout the application, making it easier to recognize and use.
- 3. Error prevention When scheduling a consultation, the application automatically validates the doctor's availability and alerts the user before confirmation in case of scheduling conflicts by validating the information entered in the form by the user
- 4. Recognition rather than recall Navigation is intuitive and explicit labels are displayed to indicate available actions without requiring memorization of information.
- 5. User flexibility and efficiency Users can schedule appointments via an interactive calendar.
- 6. Minimalist design Pages are clean with a minimalist look so important information stands out

- 7. Help and Documentation There is an accessible Help section with a short guide.
- 8. Rollback flexibility Users can cancel appointments and quickly return to previous pages to make changes.
- 9. Intuitive design The interface uses intuitive symbols and colors, and workflows are built according to user expectations.
- 10. Quick Feedback Each action (schedule, cancel) is confirmed with a success or error message, and users receive real-time notifications for schedule updates.

Each page features global elements such as fixed navigation with active button highlighting, search function, dark/light mode button , help button , up/down buttons , the animation of the main elements and the footer (where the connection to social networks is made). Also, the entire web application can adapt to any device and has integrated the Google Analytics service with which we can monitor the flow of users.

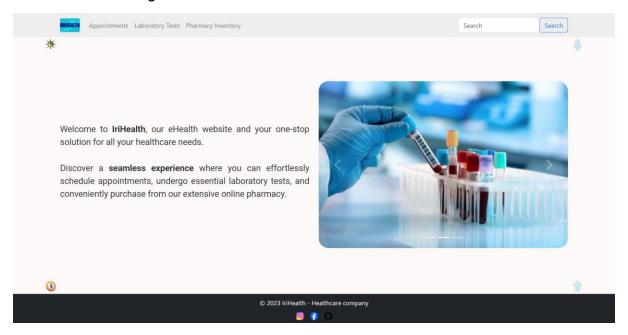


(Triggering the help button)

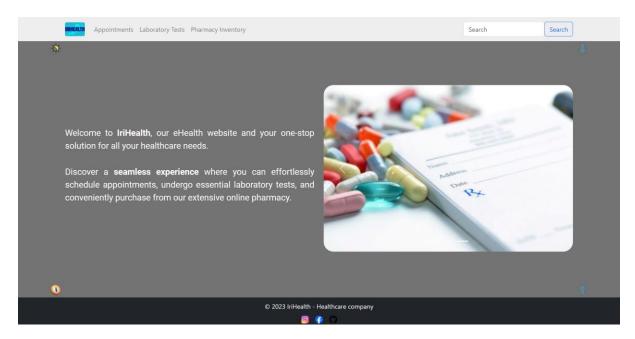


(Google Analytics – User Monitoring)

Welcome page – contains the page's introductory text alongside an automated and interactive image carousel.

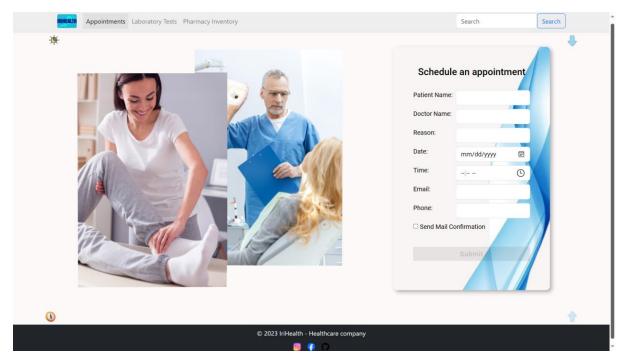


(Welcome page – Desktop version – Light mode)

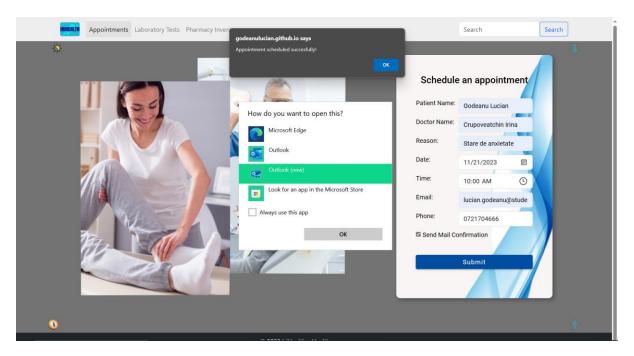


(Welcome page – Desktop version – Dark mode)

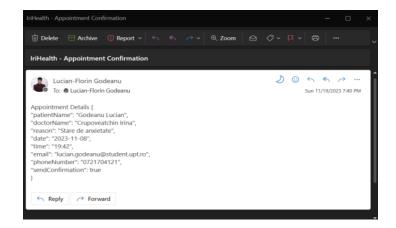
The appointments page - contains an appropriate image and a form, with the possibility of confirmation by email, which must be filled in correctly to activate the "Submit" button. After pressing button , the user you will be greeted by a confirmation alert the transmission the data . To avoid _ replenishment the form , the form will automatically reset , removing dATES introduced in the text boxes .



(Scheduling page – Desktop version – Light mode)

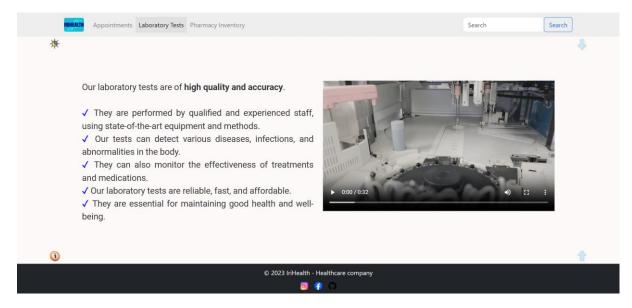


(Programming page – Desktop version – Dark mode – Successful validation)

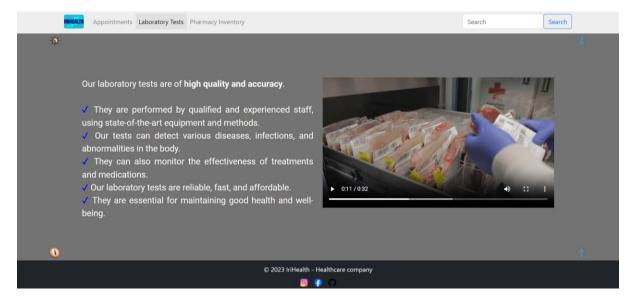


(Schedule confirmation email)

Lab Test Page – consists of a paragraph that describes the qualities of the lab tests and a related video.

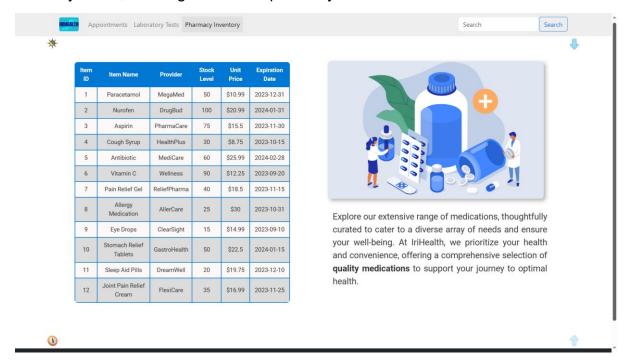


(Page for laboratory tests – Desktop version – Light mode)

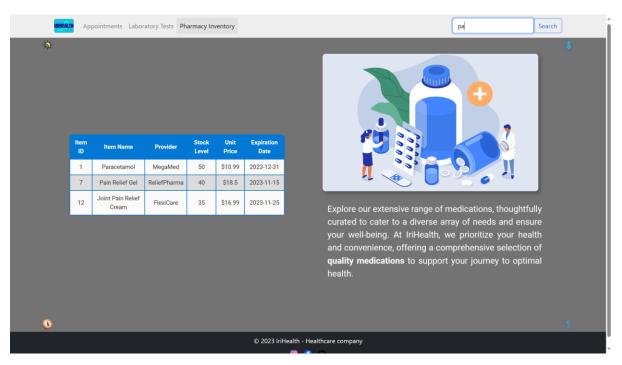


(Page for laboratory tests – Desktop version – Dark mode)

Drug inventory page – contains a table of drugs that can be searched and sorted by name, an image and an explanatory text.

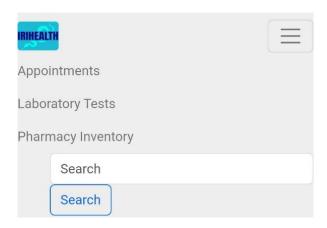


(Medicine inventory page – Desktop version – Light mode)

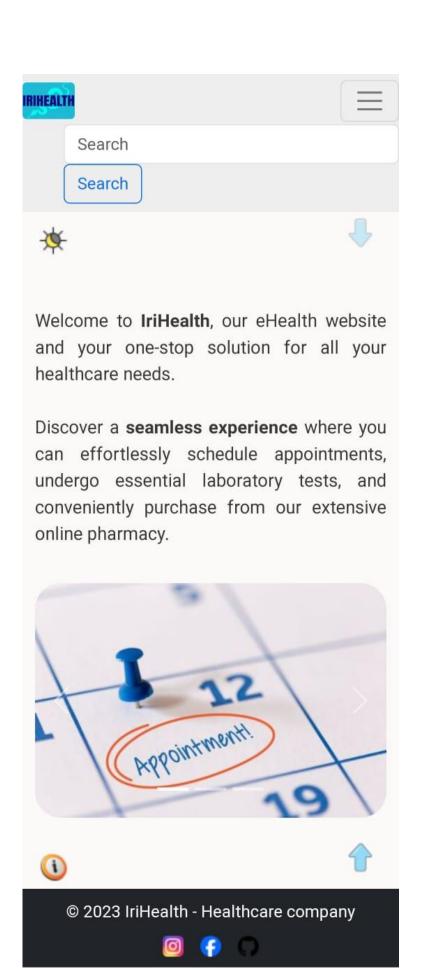


(Medicine inventory page – Desktop version – Dark mode – Search demo)

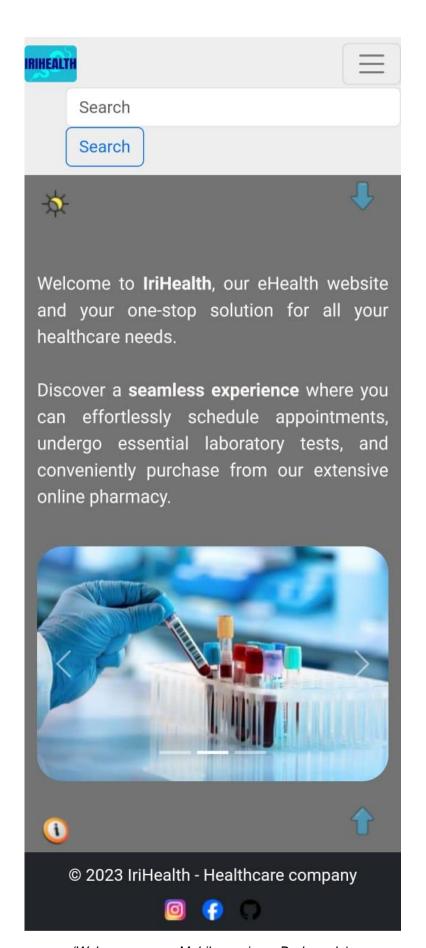
The elements on the mobile version were successfully displayed on all pages. They narrowed, with rows becoming columns, and navigation adapted to the new environment by placing items in a mini menu triggered by a toggle button. The application also adapted to the dark mode by changing the background of the pages from white to gray, and the text from black to white.



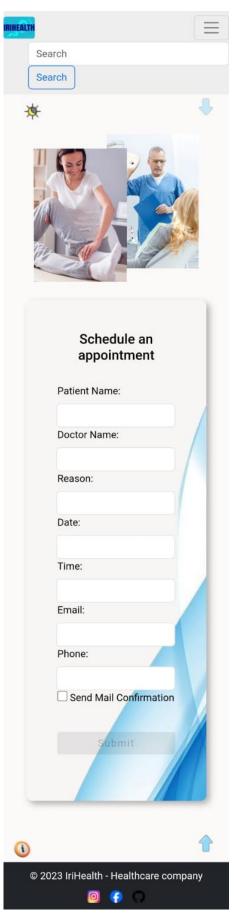
(Navigation adaptation to the mobile version)



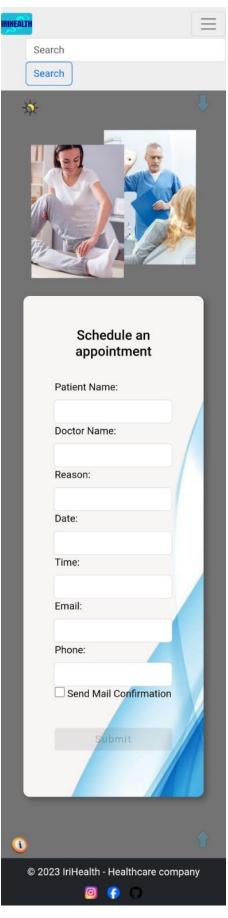
(Welcome page – Mobile version – Light mode)



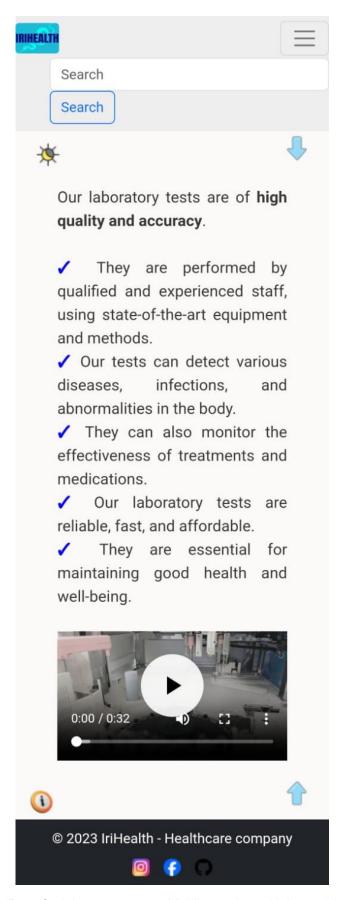
(Welcome page – Mobile version – Dark mode)



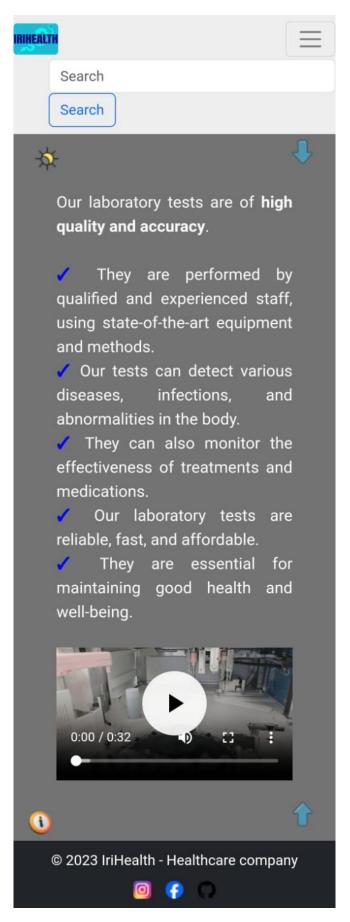
(Scheduling page – Mobile version – Light mode)



(Scheduling page – Mobile version – Dark mode)



(Page for laboratory tests – Mobile version – Light mode)



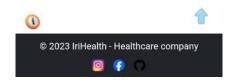
(Page for laboratory tests – Mobile version – Dark mode)



ltem ID	Item Name	Provider	Stock Level	Unit Price	Expiration Date
1	Paracetamol	MegaMed	50	\$10.99	2023-12- 31
2	Nurofen	DrugBud	100	\$20.99	2024-01- 31
3	Aspirin	PharmaCare	75	\$15.5	2023-11- 30
4	Cough Syrup	HealthPlus	30	\$8.75	2023-10- 15
5	Antibiotic	MediCare	60	\$25.99	2024-02- 28
6.	Vitamin C	Wellness	90	\$12.25	2023-09- 20
7	Pain Relief Gel	ReliefPharma	40	\$18.5	2023-11- 15
8	Allergy Medication	AllerCare	25	\$30	2023-10- 31
9	Eye Drops	ClearSight	15	\$14.99	2023-09- 10
10	Stomach Relief Tablets	GastroHealth	50	\$22.5	2024-01- 15
11	Sleep Aid Pills	DreamWell	20	\$19.75	2023-12- 10
12	Joint Pain Relief Cream	FlexiCare	35	\$16,99	2023-11- 25



Explore our extensive range of medications, thoughtfully curated to cater to a diverse array of needs and ensure your well-being. At IriHealth, we prioritize your health and convenience, offering a comprehensive selection of quality medications to support your journey to optimal health.



(Medicine inventory page – Mobile version – Light mode)



(Medicine inventory page – Mobile version – Dark mode)