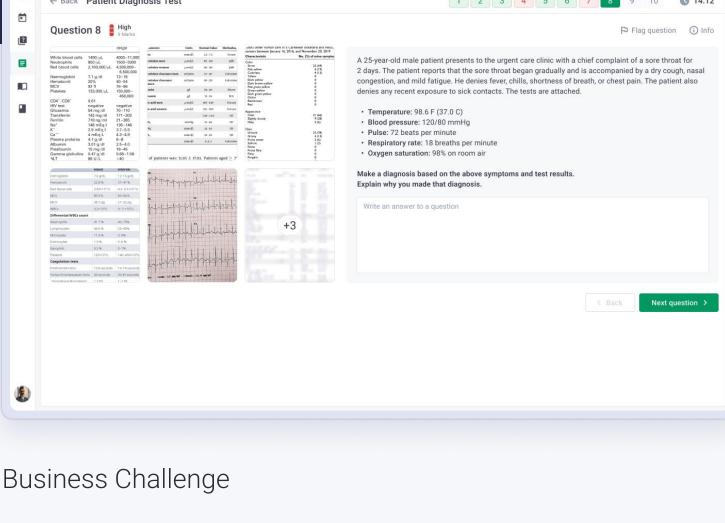


We have successfully completed over 200 projects in 65+ countries across the globe. The majority of our clients reside in the United States, Canada and the European Union.

Medical Professional Testing System

of the medical staff. The platform supports exam preparation, self-assessment, continuous learning, and curriculum support for nurses and other healthcare professionals.

A medical exam system with an extensive question bank for systematic testing and training



healthcare case studies:

After engaging in a thorough discussion with our client, we have established the following set of primary objectives: Develop a structured medical testing system for both nurses and doctors that will help standardize the knowledge base across nursing personnel; Provide a centralized repository for storing and managing medical questions and

Create and organize question sets for various exams, such as NCLEX practice tests, medical board exams, internal assessments, and training programs.

- Solution
- To address these challenges, our team proposed the development of a medical exam system with a nursing exam question bank on the basis of our ready-made product **Examarius online** <u>test system</u>. Created as a white-label assessment software, the system can be customized to

Since the platform should not only become a simple catalog for test bank questions, we

the needs of different businesses and government institutions that require training and testing

developed a reliable examination system in accordance with client's requests and the latest

staff, healthcare institutions can maintain a high standard of care and ensure that medical professionals are up-to-date with the latest medical practices and protocols. Medical question bank module provides the categorization of questions based on different medical specialties and displays them in a convenient table form. Selecting one of them by clicking a user will be able to see details, such as question content preview, types of question and answer control used, a difficulty mark, and path with the question category.

Test Builder tool with a user-friendly interface and an intuitive drag-and-drop that allows

questions from scratch or select the existing ones. By regularly testing nurses and other

users to create, edit, and organize exams on a regular basis. Users may use it to design new

our client. This allows experts to better control the process of creating questions and minimize errors at the stage of their creation. Moreover, the system offers collaboration features that allow multiple experts alternately to contribute to and manage the medical question bank, thereby improving testing accuracy and quality. The system will block a question that is edited by one examiner, and the expert who clicks on the same question card will receive a notification that currently editing it is not allowed. It was also crucial for nursing question banks to provide updated content and questions

opinions, we added an extra permission to the examiner role in the medical test system for

with unreliable or false information, an examiner with the additional permission reviews each case study and verifies it. A case study is presented in the text content view with the ability to attach photos or documents, for instance, blood analysis or initial patient assessment. This custom feature supports ongoing professional development and ensures that nurses are equipped with current knowledge. Having created an extensive question bank, we proposed to create a custom module, a test simulator for self-assessment of competency. It would allow different medical staff to take

contributor sends it for submission. In order to prevent the database from being replenished

answers and focus their learning efforts on areas where they fall behind. To conduct tests and exams within the timeframe requested in the syllabus we implemented the scheduling system. It grants all users to follow their agenda, make appointments, schedule meetings and book rooms for it. For the tests that are organized on the regular basis the implemented scheduling system provides the ability to arrange recurring events. Additional service we provided for our client was the paper-to-digital transition, because most of their exams were built manually before. Moving knowledge base to the digital records was a

General: No fevers and chills. No weight loss Skin: Noncontributory · HEENT: No nasal congestion or throat pain Brooklyn Simmons Page 1 of 5 Items per page 20

Case Study Description

14 -

B I U S A

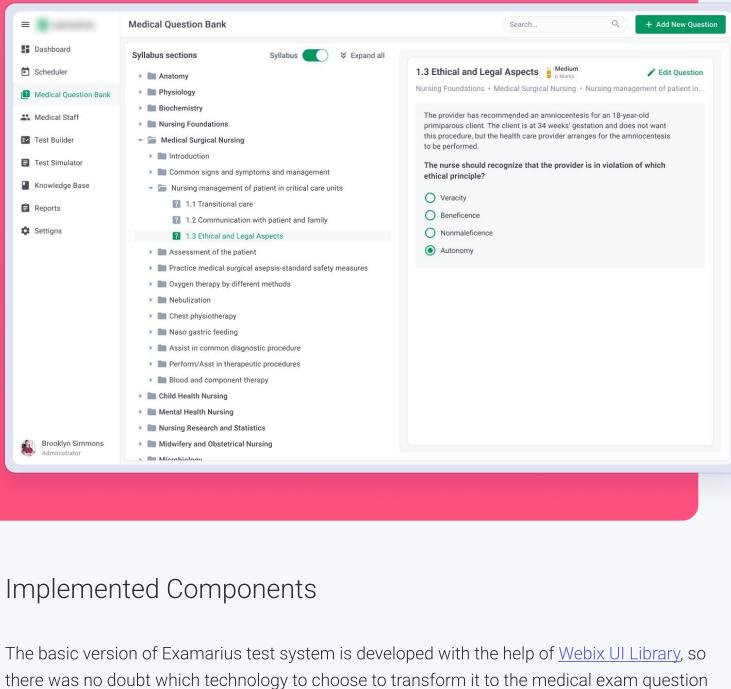
A 74-yr-old man comes to the Emergency Department (ED) because of a several-month history of increasing exertional chest pain. He states that after walking a few feet he feels left-sided chest pressure that radiates down

his left arm. Lately, the pain has been associated with dyspnea and nausea. The pain is relieved by rest within a few minutes. He saw his primary care physician a few days ago. At that time, he was given a prescription for

sublingual nitroglycerin as a therapeutic trial and was scheduled for an outpatient stress test in a few weeks. He comes to the ED today because the episodes have been occurring more frequently and with less exertion. He

says today that when he takes the sublingual nitroglycerin, it does relieve his symptoms

4.3



bank. Initially, we chose Webix due to its flexibility, extensive widget library, and ease of

integration with other technologies, which is why our client was able to get a good result faster

For example, in the syllabus mode of the nursing exam question bank we used the <u>Tree Widget</u> that enables viewing all the questions in one place in a hierarchically structured list. Using Webix

UI widgets also allows us to speed up web development and remain confident in the results. To

help medical personnel follow the curriculum and training plan flawlessly and timely we

Since this system differs from the classic Examarius by having the examiner role with extra

permissions, we integrated the <u>User Manager widget</u>. So the client may easily administer user access rights and assign multiple rules for each role. The User Manager also lets users track activity logging and gather each user's operations in a list with logging time, IP and device

Project in Figures

Applied Technologies

webix **php** MySOI

and without spending much on development.

embedded the Scheduler JavaScript UI widget.



Results

which provided our client with the organized and editable directory for both questions and case studies. The question bank ensured that questions were not duplicated and could be easily accessed and reused for testing, self-assessment or training purposes. Like the NCLEX-RN exam simulator the system allows creating and organizing exams to enhance the overall efficiency of the institution.

https://xbsoftware.com/ <u>sales@xbsoftware.com</u> Visit

← Back Patient Diagnosis Test

Test Simulator 1 2 3 4 5 6 7 A customer from a medical institution asked us to develop a web application that will make it

easy for the institution to create and organize question sets for various medical exams, starting from onboarding employees tests to NCLEX simulation tests. Also, it was necessary to provide nurses and other staff with the ability to use the system to get access to continuous learning and adding their practical experience into the knowledge database for further training.

of their employees.

trends in the healthcare industry. We customized the basic version of our product and integrated the ability to add, edit and delete questions in the medical question bank, create tests and exams based on them using an in-build tool, and other functions that will be described below. Here are several key features the medical exam question bank provided our customer with:

Furthermore, we included a search functionality, enabling users to quickly find specific questions or topics. It helps standardize the knowledge base, ensuring that medical specialists possess a consistent level of understanding and expertise. Taking into account that the healthcare industry sometimes requires the collection of

that reflect the latest evidence-based practices and guidelines. Together with the client, we discussed and decided to implement the contributor role with the opportunity to expand the knowledge base in accordance with the practical experience gained. Adding case studies to the appropriate topic, thereby helping to share knowledge about a specific medical case and experience with colleagues. After filling in all the information to the case study a

tests on a chosen topic on their own. The simulator offers an unlimited number of tests with a random selection of questions. Let's say, in the "Safety and Infection Control" category in a medical surgery test bank, there are over 150 questions. When taking a test in this category, the simulator will randomly select 10 of them. At the same time, it will take into account that the questions vary in complexity, so the test will include various questions with the difficulty mark from 1 to 10. After passing the test, the users can review their

key step to achieve a more optimized and structured workflow. It ensures a smooth integration process with the developed system that preserves data solidarity and reduces disruption. B Dash

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Med Med

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M Know **B** Repo

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Knowledge Base

New Case Study

Case Study Name Add Case Study name

Esther Howard

Short Description

Add description

Medical Field

General Info

details.

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We developed a robust and user-friendly testing system with the medical question bank, Your questions and requests are always welcome! Contact Us