Federal University of Uberlândia - UFU
Bachelor's Degree in Information Systems - Campus Monte Carmelo
FACOM33401 - Internet Programming 2 – 2021

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Technical Report: Quality Education

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MEMBERS

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GITHUB REPOSITORY

https://github.com/JfsCrd/Quality-Education.git

SYSTEM NAME

Quality Education

PROBLEMATIZATION

The United Nations (UN) has as one of the Sustainable Development Goals "decent work and economic growth" [1], this concerns the promotion of policies that support the training oflabor, technological modernization and strengthening of policies to promote the generation of jobs in search of full employment, among others.

Given this scenario it is possible to draw a line along with the so-called structural (or technological) unemployment, which occurs because the qualification (or training) of the labor force does not evolve at the same pace as technologies. Thus, those who do not train end up losing position in the labor market.

Programs such as Brasil Mais [2] of the Federal Government aim to provide technological training to reduce unemployment – offering courses and presentations from the technological scope. Similar programs play a crucial role mainly for workers already inserted in the market, since the knowledge of the sector may end up lagging behind. However, these programs appear as palliative measures, and often follow a knowledge trail considering that the participant already has a previous technological knowledge.

Although 82.7% of Brazilian households have internet access (IBGE, 2019) [3], digital inclusion should not only focus on promoting access to technology, but also in the field of tools, in which, through training courses (such as basic informatics) can be ensured to follow up technological evolution more easily so that it can continue or enter the labor market.

In view of this, there is a proposal to develop a platform that brings together free and accessible training for the entire population. Offering clearly and objectively, support to those who want to master or better understand information and communication technologies. For the work in question, it is defined that the courses will be offered on third-party platforms, so the system must act only intermediate between user and course.

BRAINSTORNING

Figure 1 - Brainstorning (Feature Proposals)

REQUIREMENTS IMPLEMENTED

Database (in full);

Control of items to be inserted into the database (partially);

Access control of users in the system (in full);

Control of sessions (in full);

Access pages (partially);

User and administrator control roles (partially);

ENTITY-RELATIONSHIP DIAGRAM

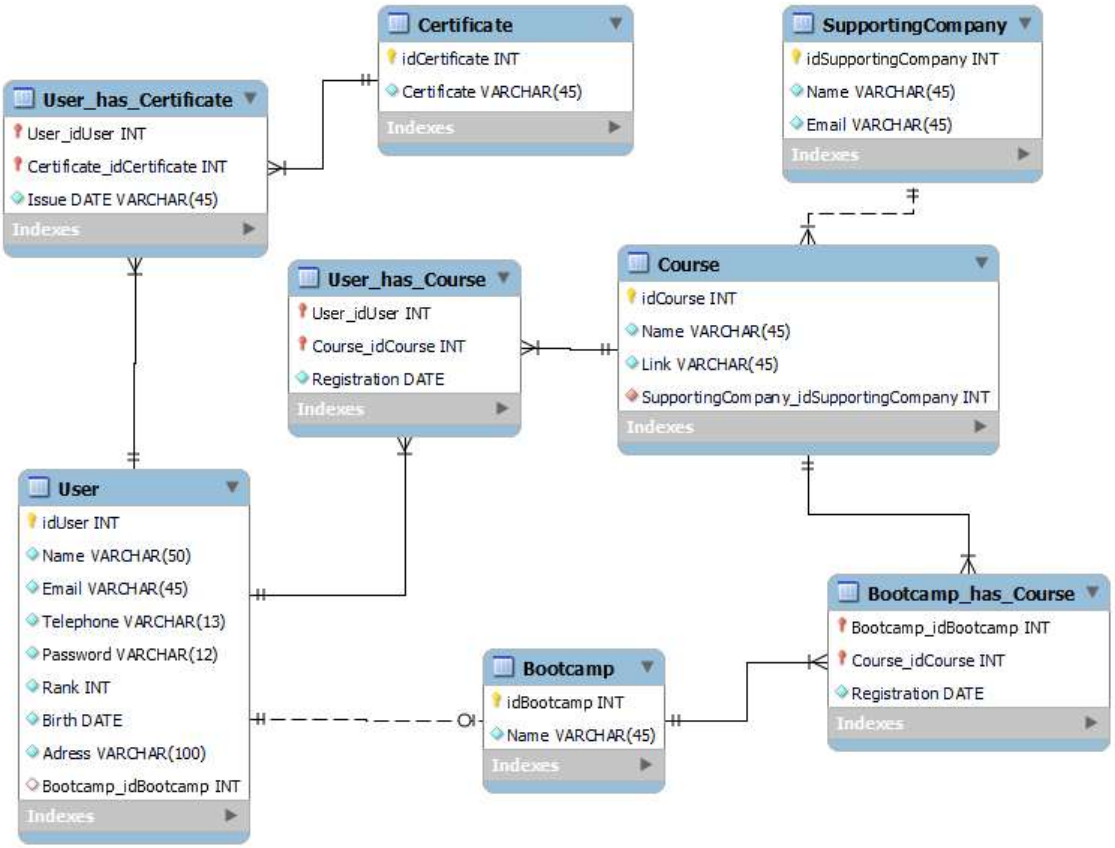

Figure 2 - Relationship Entity Diagram

Above (figure 2) is presented the Entity-Relationship Diagram (ERD), exposing the tables and attributes necessary for the operation of the system. In the model, the user has common attributes such as name, phone, email, and address, however a "rank" attribute has been added so that it is possible to differentiate levels of privileges in the system, this attribute is set automatically to the value "1" when the user registers and, later the administrator can change it. In addition, it is possible to observe three associative tables: "User_has_Certificate", it assigns certificates to users; the "User_has_Course" table is used for enrolling users to courses, as the user can enroll in more than one course simultaneously; finally, the "Bootcamp_has_Course" table defines the bootcamp in which the user is enrolled, and this enrollment is not required.

SCREENSHOTS IMPLEMENTED

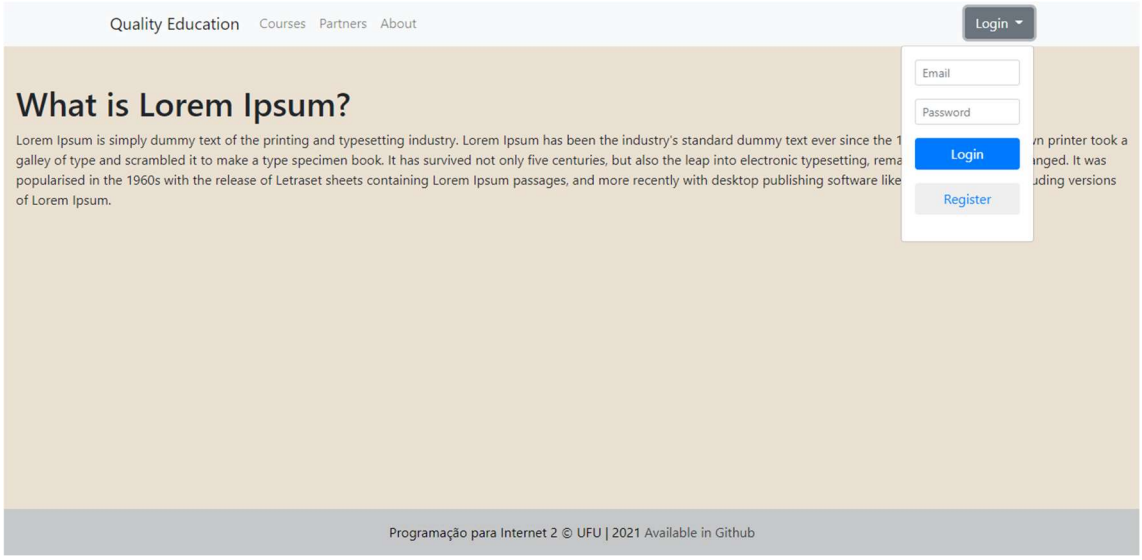

Figure 3 - Home Screen with Login/Register Button Triggered

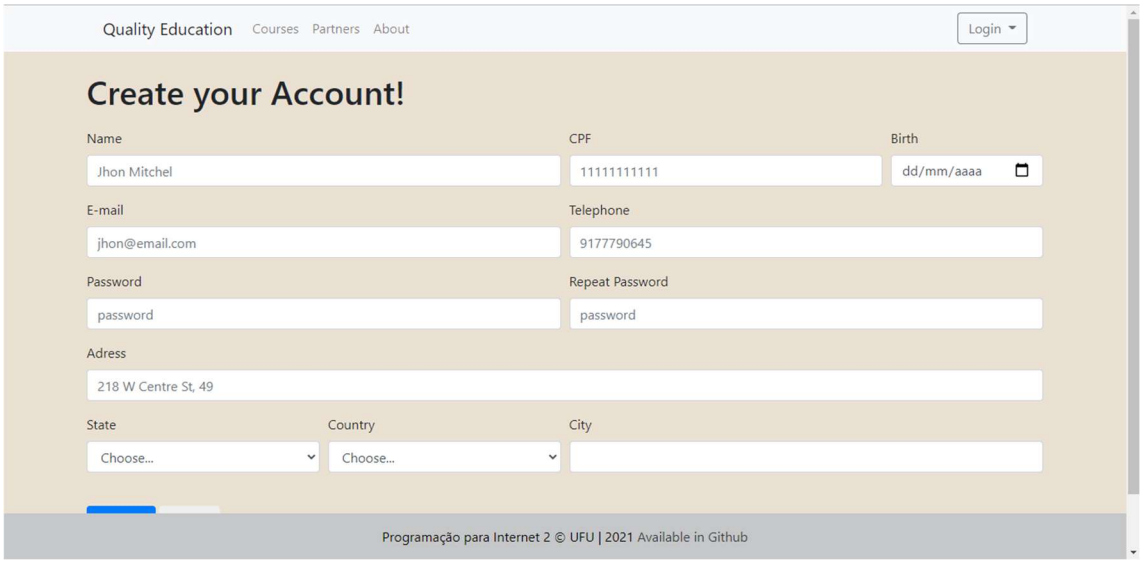

Figure 4 - Registration Screen

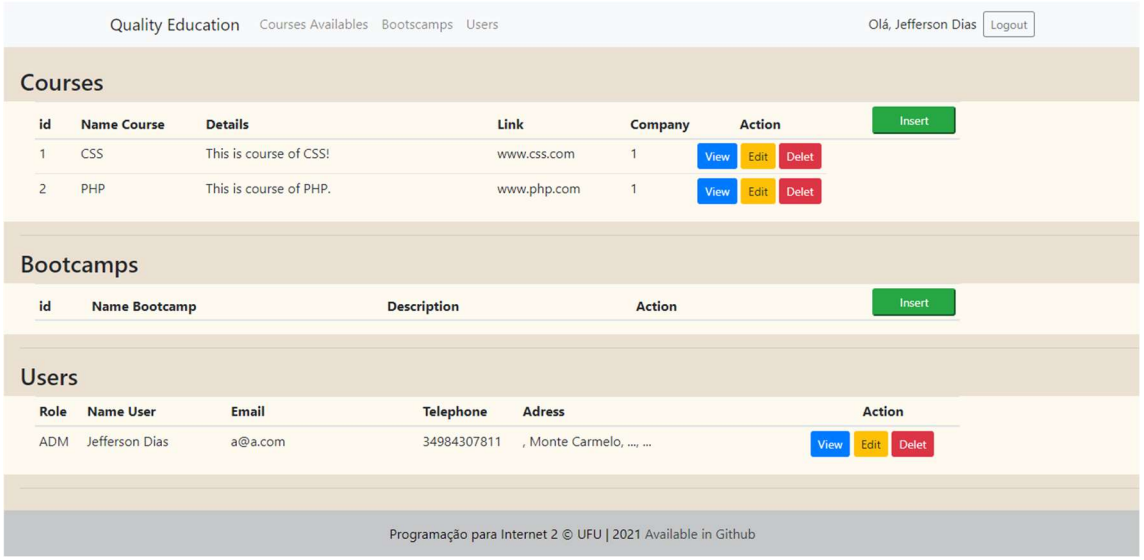

Figure 5 - Administrator Panel

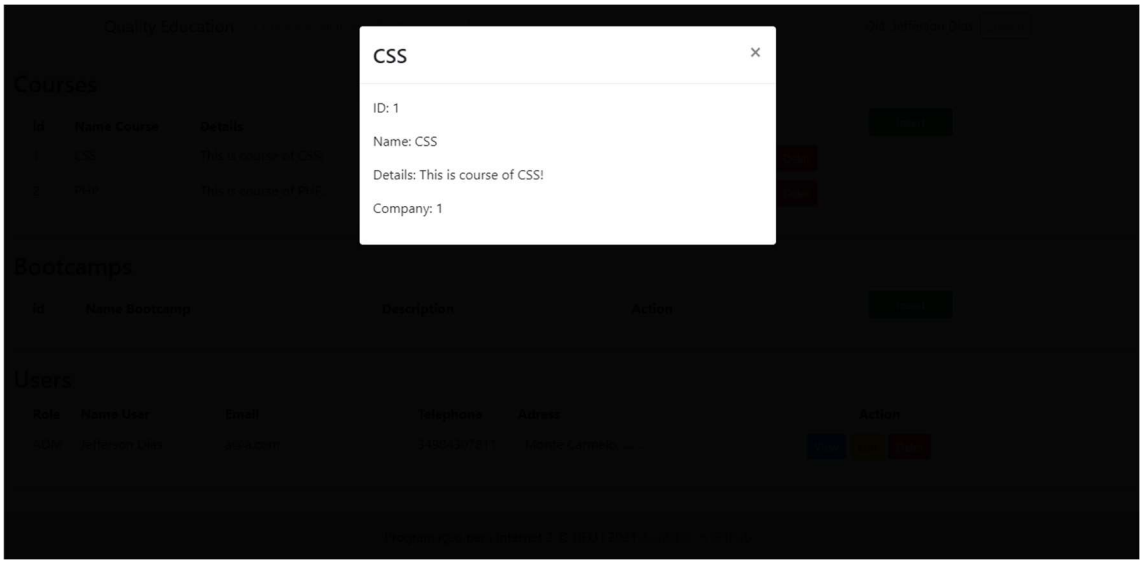

Figure 6 - Course View "Modal" Type Window

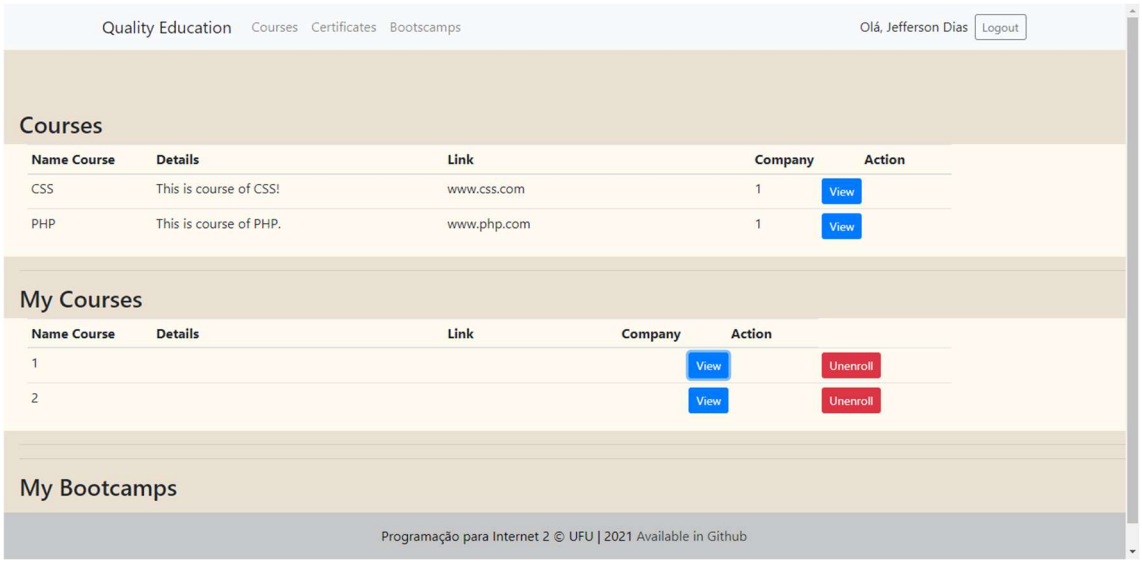

Figure 7 - Common User Panel

IMPORTANT OBSERVATIONS

The development of the project did not take place completely: the CRUDs of "enrollment" and "bootcamp" don't have the desired return on the screen due to lack of junction commands (join); the relationships of the entities (in the database) need to be revised, Such as "user_has_course" and "course_has_bootcamp"; No supporting company and control classes have not been added, as wells certificate classes; not all records that should be available to the student and administrator toview on and/or interactin have been added; session control between user and administrator has not been implemented (there is only one redirect after login); among other simple details.

REFERENCES

[1] Sustainable Development Goal. United Nations. Available in: <https://brasil.un.org//sdgs/8>. Accessed July 23.

[2] Brasil Mais will invest in the productive and technological training of companies. Government of Brazil. 2020. Available in: <https://www.gov.br/pt-br/noticias/financas-impostos-e-gestao-publica/2020/02/brasil-mais-vai-investir-na-capacitacao-produtiva-e-tecnologica-das-empresas>. Accessed July 23.

[3] Research shows that 82.7% of Brazilian households have access to the Internet. ASCOM/Ministry of Communications. 2021. Available in: <https://www.gov.br/mcom/pt-br/noticias/2021/abril/pesquisa-mostra-que-82-7-dos-domicilios-brasileiros-tem-acesso-a-internet>. Accessed July 23.