

**Team Finclerk**  
**Cybersecurity Awareness Microservices App**  
**Source-code: [https://github.com/valdor14/BSD\\_Final](https://github.com/valdor14/BSD_Final)**

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Our team aims to develop a web platform that will help companies manage the social aspect of cyber security. As we all know, even if the institution IT department is able to thoroughly secure a network and all personnel accounts through the use of firewalls, detection and prevention systems, anti-virus software and VPN connection for the times the employees are working remotely, a major vulnerability of any system is the human factor. This being said, our application will come in the form of a documentation, testing, analyzing and “patching” any possible social engineering vulnerability of an organization.

The platform will consist of a login and a register form for all new users. The types of account one can make are user (auto-generated at registry) and admin (custom generated when implemented or modified by another admin).

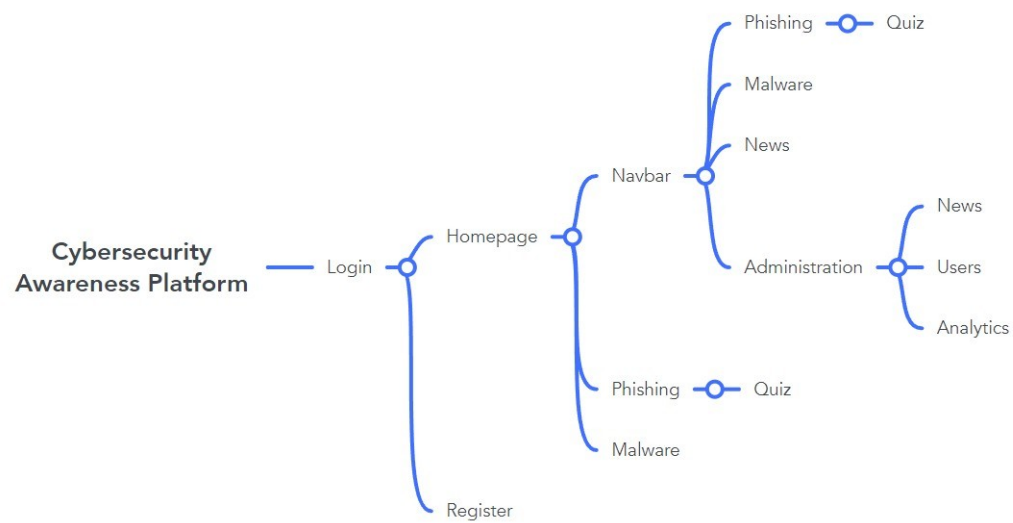
Once logged in, the employee will be greeted by the homepage screen. Here they will be able to see the acquired badges from all the modules they passed and also read a short description of how the app works and a list of modules designed as presentation of various topics such as: phishing, malware, gdpr and so on. Users will also have the possibility to access the navigation bar which will present them with a screen in which they can choose between reading a course or reading the cyber security related news. If they chose to go in and study a course, at the end of it, there will be a button for taking a quiz. Each quiz is composed of 10 multiple choice questions chosen randomly from our database. When submitted, the quiz will end, the grade will be shown on the screen with all the correct answers for all the questions given. The news screen on the other hand will be a screen of the latest cyber security news gathered from custom set websites by our web crawler. The users will only be able to read the news and go to its link for the full article on the subject.

The admin will have the same possibilities as the user, with the addition of the administration pages. First will be the user administration where they will see each user and all their grades for all modules, and they will also have the possibility to send an email to certain users to retake the quizzes they did not pass. The news administration page will feature a button that, once pressed, will trigger a backend crawler to go and fetch the latest cyber security news from certain websites. In the administration part of the app, we have an analytics screen with charts for users and their respective modules and tests taken.

The architecture of this web application will be based on microservices, with a common database and single frontend. With the help of MERN technologies (MySQL, Express, React, Node) we will divide the server side into several unit components that, in the form of APIs, will communicate with the client side to outline a high-performance application whose backend modules are not inter-dependent, preventing the failure of the platform in case one of these modules will become malfunctioning.

In the following we will sketch a possible model of the platform to be developed, both as architecture and as the various types of screens proposed.

## Application diagram



Mocks:

-Navbar

**HOME**  
**Phishing**  
**Malware**  
**News**  
**Administartor News**  
**Administartor Users**  
**Administartor Charts**

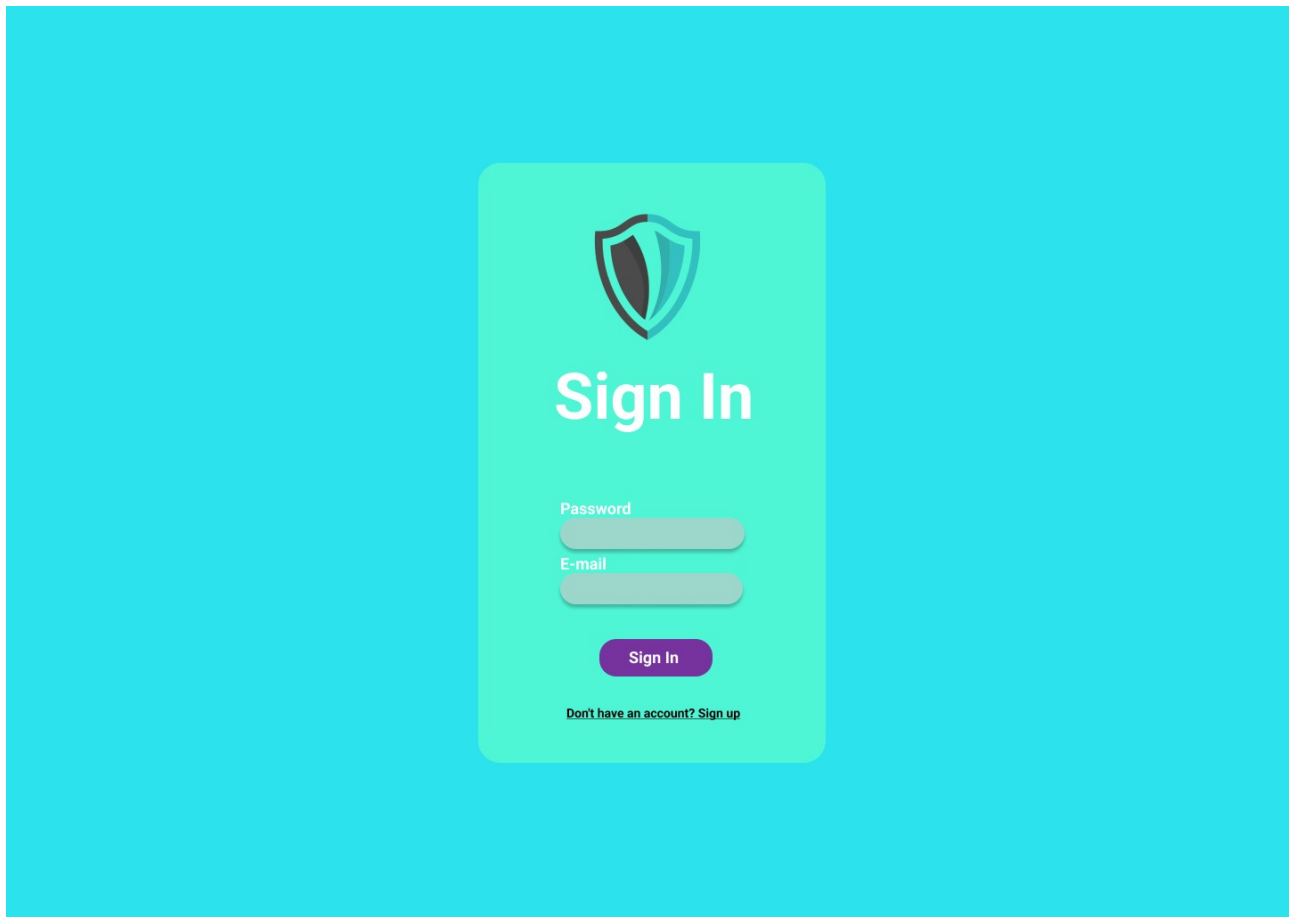
-Home



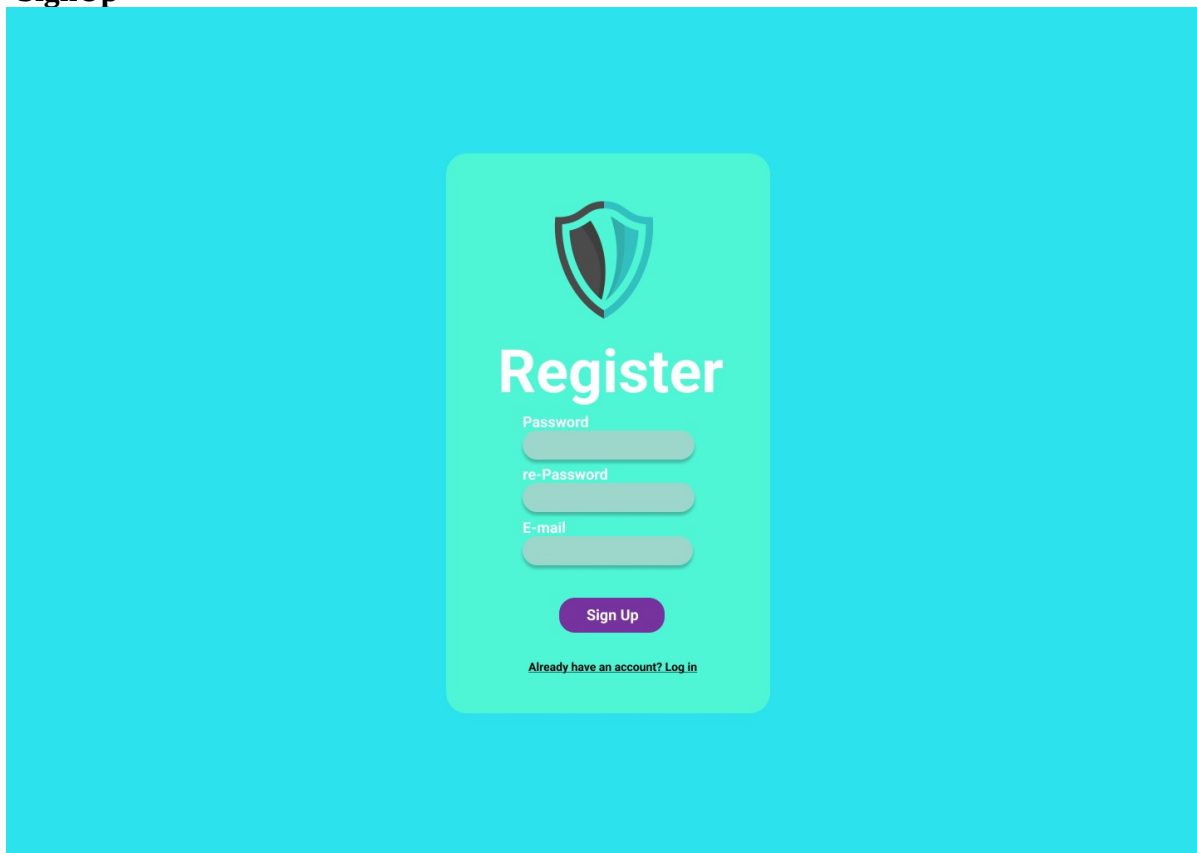
Hello, user!



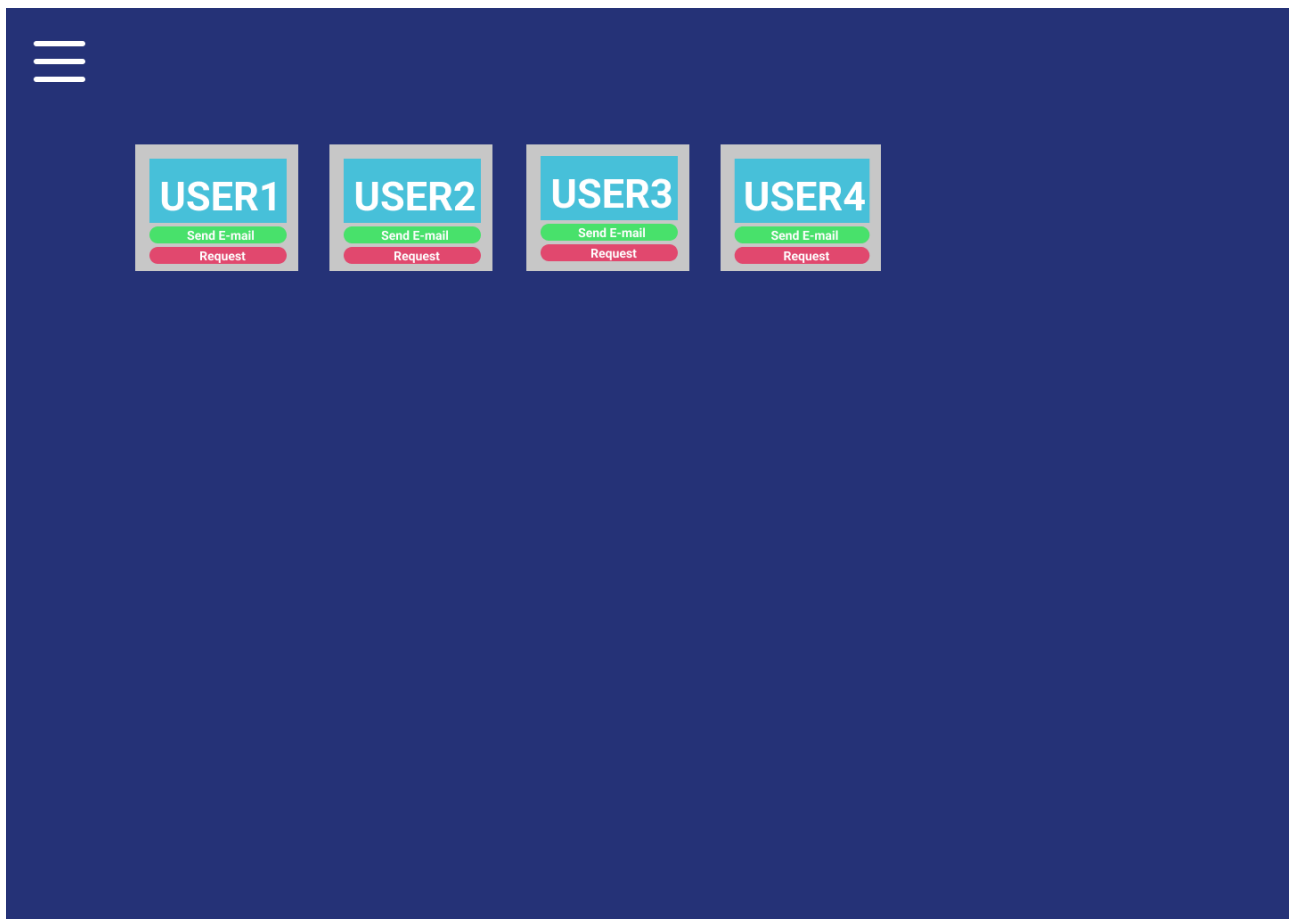
-SignIn



**-SignUp**



**-Users**



**-Phishing**



# Phishing

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorem Ipsum.

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Take a Quiz



# Quiz-Phishing

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submit the answer



# News

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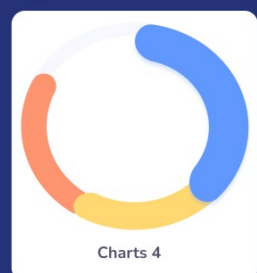
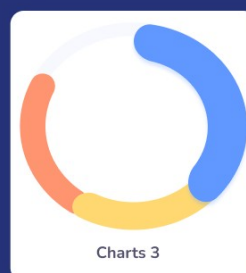
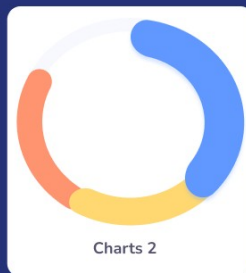
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# Administrator Charts



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