

ROCHESTER INSTITUTE OF TECHNOLOGY

Data Security and Privacy Project

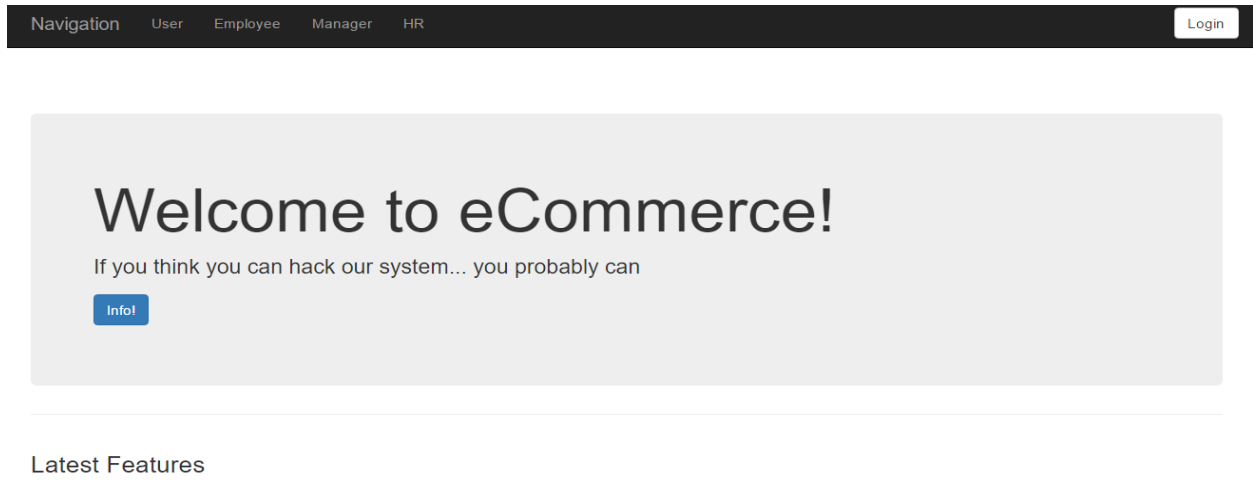
eCommerce Application

Nathaniel Cotton, Adam Fowles, Tom Ansill

4/13/2016

Application

Since we were unable to get the user VM to access our web application through RLES, we are going to allow for the user to access the web application through our webapp VM. This can be done by starting up the tomcat server by clicking on the startup.bat file located on the desktop. From there opening up a browser, must likely Internet explorer, and navigate to <http://localhost:8080/dataSecurityproj/>. From there you will see the page below.



Navigation User Employee Manager HR Login

Welcome to eCommerce!

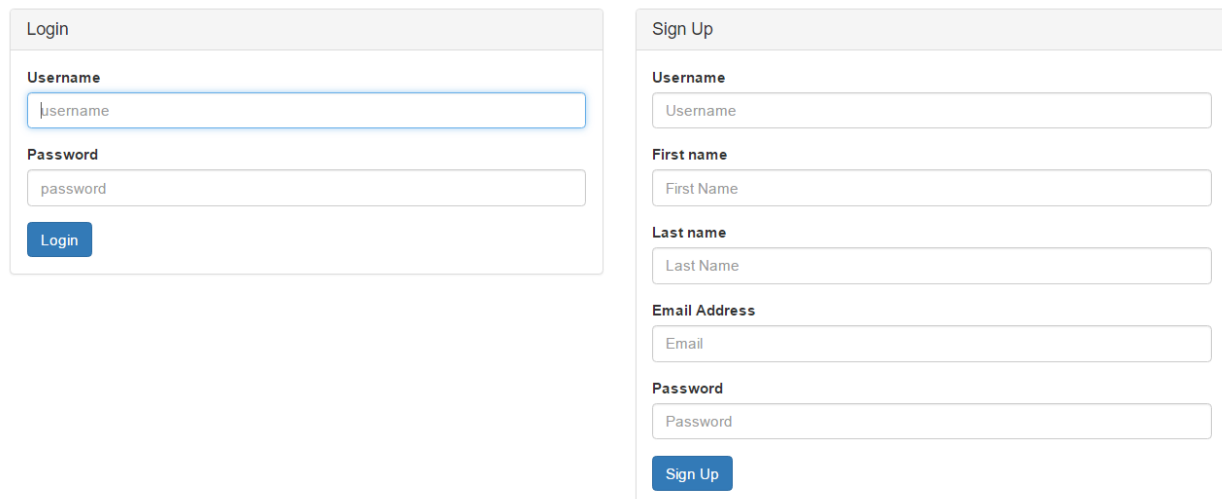
If you think you can hack our system... you probably can

Info!

Latest Features

Copyright © eCommerce 2016

From this page your options are rather limited as you are not an authorized user. That is not to say that you cannot click on the other links provided, it just that they will not let an unauthorized user execute the underlying code. Instead it will redirect you to the login page, and prompt (implied prompt) you to login with a different user account.



Login

Username

Password

Login

Sign Up

Username

First name

Last name

Email Address

Password

Sign Up

From there you will be given two options to either signup or to login. Signing up will create a new user with the values set in the fields. This newly created user will have the role of customer. The customer

will have access to changing their user information, and purchasing products. If you already have an account the login pane can be used to sign in as that user.

User Details test

test
test
test
Update

Request Role

☐ Manager
☐ HR
☐ Employee

Request

Change Password

	Change Password
--	-----------------

Once logged in the user page is then accessible to change user information, request a role change, or change the password.

Request Role

☐ Manager
☐ HR
☒ Employee

Request

When a user requests a role change, it is not immediate, or time delayed, but rather a user with role manager and another user with the role HR need to sign off on the role transition. By performing the request it puts the user in a queue to be checked whether or not the role should be assigned.

Manager Requests

HR Requests

Employee Requests

emp emp

Both the manager and the HR users will be brought to a similar looking page, but the underlying functionality is far different. If the user believes that the user should be granted the role they can click hire. Once both an HR user and Manager user sign off on the role request the role will be assigned to the user.

Fire

hr hr

emp emp

That's not to say that the role cannot be removed. The manager has the ability to fire any other employee including other managers. Once fired the users role is removed, but they do remain in the system. Later on they could reapply for their role to be reassigned. **Beware that if all HR representatives are fired it will not be possible to hire new staff, at least without manually setting the role.**

Create Product

Products

The manager also has the ability to create products to be sold to customers.

Create Product

<input type="text" value="Name"/>	<input type="text" value="Description"/>	<input type="text" value="Price"/>	<input type="button" value="Create"/>
-----------------------------------	--	------------------------------------	---------------------------------------

Products

<input type="text" value="USB"/>	<input type="text" value="8GB"/>	<input type="button" value="Update"/>
<input type="text" value="100"/>	<input type="button" value="Change Price"/>	
<input type="button" value="Activate"/>		

Once a product is created the name and description of the product can be changed, along with its price (at the moment changing the price will display duplicate items due to a framework issue with setting a date). Finally, the manager can activate or deactivate the product, which determines whether or not it should be displayed to the customer.

Products

Name: USB
Description: 8GB
Price: 100

<input type="text" value="0"/>	<input type="button" value="Order"/>
--------------------------------	--------------------------------------

Once a product is activated, a customer will get the above display, which allows them to order a particular quantity of the product. Once ordered their information will be placed in a queue to be fulfilled by either an employee or a manager.

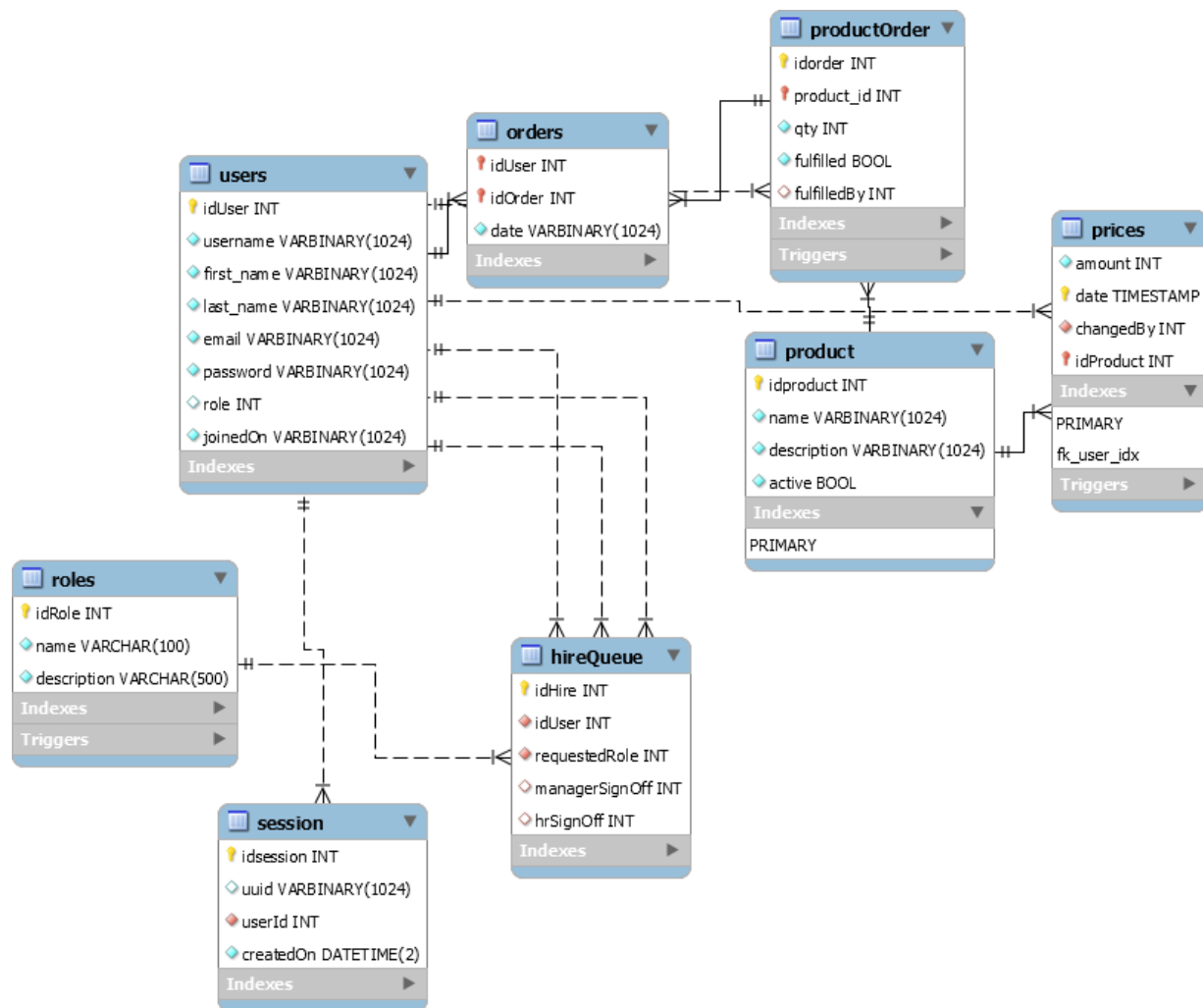
Orders eCommerce

Order #1

<input type="button" value="Fulfill"/>
--

Upon being enqueued, the employee or manager can click the fulfill button to satisfy the order.

Database



The above represents our database structure, although there should be no direct access to the database, and all interactions should be forced through stored procedures.