InstructED

Software Test Plan

CSCI-P465/565 (Software Engineering I)

Project Team

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1. Overview
   1. Test Objectives
      * Verify a user can register an account
      * Verify a user can log into their account using their email and correct password
      * Verify a user can reset their password using a password reset link sent to the email tied to their account.
      * The password a user submits is encrypted
      * Verify a user can log using Facebook Oauth.
      * Verify Duo 2 Factor Authentication works, and is required to log in.
   2. Test Environment
      * 1: Local testing on a Linux system (Arch Linux), using the Brave browser (Chromium) and a locally hosted Postgresql database
      * 2: Non-Local testing using a Heroku based web server, and Postgresql database server
   3. Test Personnel
      * Kevin Cao
   4. Acceptance Criteria
      * A user can register and login, as well as reset their password. All links and buttons direct to where they are supposed to and no pages that can only be accessed by users can be accessed by non-users.
   5. Noted Omissions
2. Test Cases
   1. Test Case 1: Normal Login
      * Description: A user with an account would like to log into their InstructED account
      * Initial Conditions: User must already have an account, and know their password and email address
      * Input Data: Email of the account, password for the account, and phone number (for Duo Authentication)
      * Specifications: User can log into their account with the correct email and password, and Duo 2FA works
      * Procedure: Using an account created using one of our emails, a password we know, and our phone number we would test the login procedure
   2. Test Case 2: Forgot Password
      * Description: A user has forgotten their password, and wants to reset it
      * Initial Conditions: User must already have an account, know their email address and have access to the email address tied to their account.
      * Input Data: Email of the account, and the new password.
      * Specifications: A user can reset their password using a password reset link sent to the email tied to their account
      * Procedure: We would use the email associated with a test account to reset the password of the test account, then attempt to login with the new password.
   3. Test Case 3: Registration
      * Description: A new user would like to create an InstructED account.
      * Initial Conditions: New user must have an email address to use for their account, and a password to provide.
      * Input Data: Email of the new user, first name, last name, and password
      * Specifications: User can log into their account with the correct email and password.
      * Procedure: We would use one of our emails, and a password to register for an account, then verify it exists by checking the database and logging in.
   4. Unsuccessful Login
      * Description: A user would like to log in, but either types the wrong email address or wrong password
      * Initial Conditions: User must have an account
      * Input Data: Erroneous password/email address inputted
      * Specifications: User can log in with their correct email address and their correct password
      * Procedure:
   5. Login/Register With a Facebook Account
      * Description: A user would like to use their Facebook account to log into their InstructED account
      * Initial Conditions: The user must have a Facebook account, and must not have an InstructED account with the same email as their Facebook account
      * Input Data: Email/password for the Facebook account
      * Specifications: User can log into their account using Facebook Oauth
      * Procedure: Use one of our Facebook accounts to log in using Oauth
   6. Test Case 4: Testing Encryption of Passwords
      * Description: After adding a user to the database, the password should be encrypted to ensure security.
      * Initial Conditions: There must be a user in the database, and the person checking the database must know the unencrypted password for this user.
      * Input Data: A query to the database in order to see password info.
      * Specifications: The password a user submits is encrypted
      * Procedure: Add a user to the database, while knowing the password, then query the database to ensure that the password has been encrypted.