Testing

8cres App 8cres 06/02/2021

Note: We did automatic Unit Testing in Xcode which is under the Repository "8cres" under the directory "8cresTests"

CreateAccountViewController

- a. isValidEmail()
 - This function returns true if the user inputs valid format email and false otherwise.
 - 1. We tested by inputting ("test@test.com") a valid email address which we passed.
 - 2. We also tested with an empty formatted email ("") and returned false which we passed.
 - 3. We also tested with a badly formatted email ("testtest.com") that was missing the "@" and returned false which we passed.
 - 4. We also tested with a badly formatted email ("test@testcom") that was missing the "." and returned false which we passed.

b. isValidPassword()

- i. This function returns true if the user inputs a valid password.
 - 1. we tested by inputting ("Ab1#\$&4") which is a correctly formatting password which returned true and we passed it.
 - 2. We also tested it by inputting an empty string which returns false and we passed it.
 - 3. We also tested it by inputting a string that is less than six characters long which returns false and we passed it.

2. TestingNewUserViewController

- a. isValidFirstName()
 - i. This function tests that the user inputs a correct format user first name.
 - 1. To test it we input a string in the format "test" which returns true and we pass it.
 - 2. we also tested it by allowing for space between two words "test test" which returns true and we pass it.
 - 3. we tested with an empty string "" which returns false and we passed.
 - 4. we tested incorrect first name which includes characters only in the format "12!3\$*" which returns false and we passed it.

b. isValidLastName()

- i. This function tests that the user inputs a correct format user last name.
 - 1. To test it we input a string in the format "test" which returns true and we pass it.

- 2. we also tested it by allowing for space between two words "test test" which returns true and we pass it.
- 3. we tested with an empty string "" which returns false and we passed.
- 4. we tested the incorrect last name which includes characters only in the format "12!3\seta" which returns false and we passed it.

c. isValidPhoneNumber

- i. This function tests that the user inputs the correct phone number format.
 - 1. We tested it with the correct input in the format "111-222-3333" which returns true and we passed it.
 - 2. We tested wrong input in the format of empty string "" which returns false and it was passed.
 - 3. We tested a wrong input in the format "111-222-333" which is missing numbers, returns false and we passed it.
 - 4. we tested a wrong input in the format "111-2223333" which is missing a dash which returns false and we passed it.
 - 5. We also tested the input format "(111)222-3333" which uses commas and returns false and we passed.

d. returnEmail()

- i. which returns the email of the current user.
 - 1. We tested by comparing the returned email to the email the user used which are the same.

3. NameYourGoalViewController

- a. isValidHomeGoal()
 - i. This function checks that the user inputs a correct formatted string input.
 - 1. We tested by inputting correct input in the format "testing" with no spaces which returns true and we passed it.
 - 2. We Tested by inputting correct input in the format "testing testing testing" with spaces which returns true and we passed
 - 3. we tested an empty string input in the format "", which returns false and we passed it.
 - 4. we also tested with wrong input in the format "12321" which is numbers only, returns false and we passed.

4. InconeViewController

- a. isValidIncomeInput()
 - i. This function checks that the user inputs the correct income input.
 - 1. We tested by inputting the correct format "0123456789" which is numbers only and returns true, and we passed.
 - 2. we tested by inputting a wrong input which is an empty string in the format "" which returns true and we passed.
 - 3. we also tested with the wrong input using only alphabet strings in the format "Testing" which returns false, and we passed.

5. PriceViewController

a. isValidPriceInput()

- i. This function checks that the user inputs the correct price format.
 - 1. We tested by inputting the correct format "0123456789" which is numbers only and returns true, and we passed.
 - 2. we tested by inputting a wrong input which is an empty string in the format "" which returns true and we passed.
 - 3. we also tested with the wrong input using only alphabet strings in the format "Testing" which returns false, and we passed.

6. LocationViewController

- a. isValidLocation()
 - i. This function checks that the user inputs a correct formatted string input.
 - 1. We tested by inputting correct input in the format "testing" with no spaces which returns true and we passed it.
 - 2. We Tested by inputting correct input in the format "testing testing" with spaces which returns true and we passed
 - 3. We tested by inputting the correct input in the format "testing, testing" which has a comma, and it returns true which we passed.
 - 4. We tested an empty string input in the format "", which returns false and we passed it.
 - 5. We also tested with wrong input in the format "0123456789" which is numbers only, returns false and we passed.
 - We also tested with wrong input in the format "Abc0123456789" which is a mixture of numbers and letters, and returned false and we passed.

7. HomveViewController

- a. We tested the labels to check that they are connected by trying to unwrap them.
- b. We tested that the buttons are connected and have action when clicked on them by calling UIButton actions that check for connection.
- c. goalReachCheck()
 - This function checks whether the downpayment goal has been reached or not.
 - 1. We tested by having an input of "1.00" dollars to go until the goal is reached which is supposed to return false, and it passed.
 - 2. We tested by having an input of "1000.00" dollars to go until the goal is reached which is supposed to return false, and it passed.
 - 3. we tested with an input of "0.00" meaning that the goal has been reached and is supposed to return true, which we passed.
 - 4. we also tested by having a negative input " -1.00" which means that we saved more than we needed which is supposed to return a true, and we passed.

8. ProfileViewController

- a. We tested the labels to check that they are connected by trying to unwrap them.
- b. We tested that the buttons are connected and have action when clicked on them by calling UIButton actions that check for connection.
- 9. HomveViewController

- a. We tested the labels to check that they are connected by trying to unwrap them.
- b. We tested that the buttons are connected and have action when clicked on them by calling UIButton actions that check for connection.
- c. isOverdraftValidation()
 - This function takes a balance as an input and checks to see whether the balance is positive not overdrafted or negative which means overdrafted.
 - 1. We tested with a positive input of "100.00" which means no overdraft, and is supposed to return false, which we passed.
 - 2. we tested with a negative balance of "-100.00" which means that there is overdraft and is supposed to return true, which we passed.
 - 3. we tested with a balance of "0.00" which means that there is no overdraft and returns false, which we passed.
- d. validateTransferIsNotEmpty()
 - i. This function checks that the text input field is not empty when we click the transfer button.
 - 1. we tested with an empty input "" which means that's the textfield is empty which returns true, and we passed.
 - 2. we tested with an input of "0123456789" which means that the textfield is not empty and returns false which we passed.