CS 1530 - Group 4

Milestone 5 for CodeFeed

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# 1 Purpose

## This test plan is to test a social media interface CodeFeed. The testing will consist of front-end and back-end, focusing on the back-end components and the front-end interfaces. We will test the front-end with Katalon, and test the back-end with python unittest import library.

# 2 Unit Testing

### 2.1 App Config: the configuration file varies based on if the app is in debug, release, or testing mode

#### 2.1.1 Equivalence classes for the App Config module

##### 2.1.1.1 The equivalence classes for item “DEBUG”

###### 1 If the app is in release mode, the DEBUG flag will be set to false

###### 2 If the app is in debug mode, the DEBUG flag will be set to true

###### 3 If the app is in testing mode, the DEBUG flag will be set to true

###### 4 Anything else is an error

##### 2.1.1.2 The equivalence classes for item “TESTING”

###### 1 If the app is in release mode, the TESTING flag will be set to false

###### 2 If the app is in debug mode, the TESTING flag will be set to false

###### 3 If the app is in testing mode, the TESTING flag will be set to true

###### 4 Anything else is an error

##### 2.1.1.3 The equivalence classes for item “SECRET\_KEY”

###### 1 The SECRET\_KEY flag will always be set to binascii.hexlify(os.urandom(24)) regardless of the program mode

###### 2 Anything else is an error

##### 2.1.1.4 The equivalence classes for item “USERNAME”

###### 1 If the app is in release mode, the USERNAME flag will be set to 'admin'

###### 2 If the app is in debug mode, the USERNAME flag will be set to 'debug'

###### 3 If the app is in testing mode, the USERNAME flag will be set to 'testing'

###### 4 Anything else is an error

##### 2.1.1.5 The equivalence classes for item “SQLALCHEMY\_TRACK\_MODIFICATIONS”

###### 1 If the app is in release mode, the SQLALCHEMY\_TRACK\_MODIFICATIONS flag will be set to false

###### 2 If the app is in debug mode, the SQLALCHEMY\_TRACK\_MODIFICATIONS flag will be set to false

###### 3 If the app is in testing mode, the SQLALCHEMY\_TRACK\_MODIFICATIONS flag will be set to true

###### 4 Anything else is an error

##### 2.1.1.6 The equivalence classes for item “SQLALCHEMY\_DATABASE\_URI”

###### 1 If the app is in release mode, the SQLALCHEMY\_DATABASE\_URI flag will be set to ‘sqlite:///codefeed\_release.db'

###### 2 If the app is in debug mode, the SQLALCHEMY\_DATABASE\_URI flag will be set to sqlite:///codefeed\_debug.db'

###### 3 If the app is in testing mode, the SQLALCHEMY\_DATABASE\_URI flag will be set to sqlite:///codefeed\_testing.db'

###### 4 Anything else is an error

#### 2.1.2 Checklist: the following grey box tests will be performed

##### Load the app in debug mode and assert all variables are correct

##### Load the app in testing mode and assert all variables are correct

##### Load the app in release mode and assert all variables are correct

### 2.2 login\_required: used to assert the user is logged in before attempting to view a page or sensitive data

#### 2.2.1 Equivalence classes for the login\_required module

##### 2.2.1.1 The equivalence classes for item “session['user\_id']”

###### 1 If the session variable is nothing, the user will be redirected to the login page

###### 2 If the session variable is set, the user will continue to the requested page

###### 3 Anything else is an error

#### 2.2.2 Checklist: the following black box tests will be performed

##### Login to CodeFeed and attempt to view the profile page

##### Logout of CodeFeed and attempt to view the profile page

##### Login to CodeFeed and attempt to view the profile/messages page

##### Logout of CodeFeed and attempt to view the profile/messages page

##### Login to CodeFeed attempt to send a friend request

##### Logout of CodeFeed and attempt to send a friend request

##### Login to CodeFeed and attempt to add a category

##### Logout of CodeFeed and attempt to add a category

##### Login to CodeFeed and attempt to add a thread

##### Logout of CodeFeed and attempt to add a thread

##### Login to CodeFeed and attempt to add a comment

##### Logout of CodeFeed and attempt to add a comment

##### Login to CodeFeed and attempt to vote on a thread

##### Logout of CodeFeed and attempt to vote on a thread

##### Log in CodeFeed and attempt to vote on a comment

##### Logout of CodeFeed and attempt to vote on a comment

### 2.3 initdb: used to create an empty database for the application to use or clear an existing database

#### 2.3.1 Equivalence classes for initdb

##### 2.3.1.1 The equivalence classes for item “release database”

###### 1 If the application is set in release mode, a new database called “codefeed\_release.db” will be created

###### 2 Anything else is and error

##### 2.3.1.2 The equivalence classes for item “debug database”

###### 1 If the application is set in debug mode, a new database called “codefeed\_debug.db” will be created

###### 2 Anything else is an error

##### 2.3.1.3 The equivalence classes for item “testing database”

###### 1 If the application is set in testing mode, a new database called “codefeed\_testing.db” will be created

###### 2 Anything else is an error

##### 2.3.1.4 The equivalence classes for item “database exists”

###### 1 Even if the database already exists, it will still be blank after the module is executed

###### 2 Anything else is an error

#### 2.3.2 Checklist: the following white box tests will be performed

##### Run init\_db in debug mode

##### Run init\_db in testing mode

##### Run init\_db in release mode

### 2.4 Landing Page: used to introduce the platform to the user

#### 2.4.1. Equivalence classes for the Landing Page

##### 2.4.1.1 The equivalence classes for item "Create Account"

###### 1. on click, redirect to Register Page, acceptable

###### 2. anything else is an error

##### 2.4.1.2 The equivalence classes for item "Login":

###### 1. on click, redirect to Login Page, acceptable

###### 2. Anything else is an error

##### 2.4.1.3 The equivalence classes for item "Registered Users":

###### 1. If the number of registered users in the database is 0, display 0 acceptable

###### 2. Else display the count of registered users acceptable

###### 3. Anything else is an error

##### 2.4.1.4 The equivalence classes for item "Current Groups":

###### 1. If the number of categories in the database is 0, display 0 acceptable

###### 2. Else display the count of categories acceptable

###### 3. Anything else is an error

##### 2.4.1.5 The equivalence classes for item "Posts Made":

###### 1. If the number of threads + the number of comments in the database is 0, display 0 acceptable

###### 2. Else number of threads + the number of comments acceptable

###### 3. Anything else is an error

##### 2.4.1.6 The equivalence classes for item "Happy Programmers":

###### 1. If the number of votes in the database is 0, display 0 acceptable

###### 2. Else display the count of votes acceptable

###### 3. Anything else is an error

#### 2.4.2 Checklist: the following black box tests will be performed

##### Assert page loads elements correctly

##### Click on Create Account

##### Click on Login

##### Assert Registered Users count when database is empty

##### Assert Registered Users count when database is not empty

##### Assert Current Groups count when database is empty

##### Assert Current Groups count when database is not empty

##### Assert Posts Made count when database is empty

##### Assert Posts Made count when database is not empty

##### Assert Happy Programmers count when database is empty

##### Assert Happy Programmers count when database is not empty

### 2.5 Login Page

### 2.6 Logout Route: used to log the user out of the CodeFeed application

#### 2.6.1 Equivalence classes for the Logout Route module

##### 2.6.1.1 Class “user logged in”

###### 1 If the user is logged in, the session will be cleared and they will be redirected to the login page

###### 2 Anything else is a failure

##### 2.6.1.2 Class “user not logged in”

###### 1 If the user is not logged in, they will be redirected to the login page

###### 2 Anything else is a failure

#### 2.6.2 Checklist

### 2.7 Register Page

### 2.8 Profile Page

### 2.9 Profile/id Page

### 2.10 Profile/Messages Page

### 2.11 Profile/Friends Page

### 2.12 Profile/Friends/Requests Route

### 2.13 Categories Page: used to view a list of categories stored in the CodeFeed database

#### 2.13.1 Equivalence classes for the Categories Page module

##### 2.13.1.1 Class “page load”

###### 1 A navbar with links - my profile, messages, categories, and logout – and the CodeFeed logo will be present on page load

###### 2 The page will be titled: Categories

###### 3 The page header will read: Select a Category

###### 4 A table with a list of categories or the message: “no table data present”, sorting features, and a search box will be centered on the page

###### 5 A button labeled “Add category” will be present on the upper right of the page

###### 6 Anything else is a failure

##### 2.13.1.2 Class “click add category”

###### 1 When the “Add category” button is clicked, there should be a modal popup with the follow fields: desired name, description, and a “Post Category” button

###### 2 Anything else is a failure

##### 2.13.1.3 Class “search table”

###### 1 When the search box is typed into with any character, the table will be filtered to display entries that contain that string

###### 2 If no category contains the entered text, the text “No matching records” will be shown

###### 3 When the search box is cleared, the table will be returned to its original, unfiltered form

###### 4 Anything else is a failure

2.13.1.4 “sort table”

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#### 2.13.2 Checklist

### 2.14 Category Page: used to view a single category within the list of categories

### 2.15 Category Route: used to add a new category to the CodeFeed database

### 2.16 Category/Thread Page: used to view a single thread associated with a category

### 2.17 Category/Thread Route: used to add a new thread to the CodeFeed database

### 2.18 Category/Thread/Comment Route: used to add a new comment to the CodeFeed database

### 2.19 Category/Thread/Vote Route: used to modify the vote count on a specific thread

### 2.20 Category/Thread/Comment/Vote Route: used to modify the vote count on a specific comment

# 3 Integration Testing

3.1 The purpose of the integration tests is to test the functionality of CodeFeed. This includes all the features required in the documentation and possible future improvements. These are test cases to test the depth and degree of integration, aka: Does it work for all edge cases and corner cases? We will group specific components of the system by their routes.

3.2 Checklist

3.3 The tests will be performed by Alec and Bert

# 4 System Testing

## 4.1 These tests will make sure the basics of the program (startup, initialization, configuration, routes creation, etc.) will work.

## 4.2 Checklist

### Initialize database in debug mode

### Initialize database in testing mode

### Initialize database in release mode

### Run the application in debug mode

### Run the application in testing mode

### Run the application in release mode

### View / route

### View /login route

### View /profile route

### View /category route

## 4.3 The system tests will be performed by Jeremy

# 5 Acceptance Testing

## 5.1 The purpose of the acceptance tests is to test just the end-user-focused of the feature set. This includes all the features required in the documentation and possible future improvements. These tests should be more user experience based, rather than technical.

## 5.2 Checklist: the following black box tests will be performed

### Register for an account

### Login to new account

### Logout of account

### View profile

### Edit profile

### View friends

### Add new friend

### View messages

### Create new message

### Respond to message

### View categories

### Add new category

### View threads in a category

### Add thread to category

### Vote on category

### View comments on a thread

### Add new comment on a thread

### Comment on thread

## 5.3 The acceptance tests will be performed by Jeremy