**MANUAL QA**

***Homework - Lesson 10***

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**Level 1:**

**1. The speed control system has the following characteristics:**

**- at a speed of 50 km/h or less — the system does not respond**

**- at a speed of more than 50 but less than 55 km/h — the system issues a warning**

**- at a speed of more than 55, but less than 60 km/h — the system will issue a fine**

**- at a speed of more than 60 km/h — the driver will receive a fine and a penalty point in the driver's license**

**The speed in the system is measured in integer values. Which of the test data sets can be used to test all the boundary values of the equivalence classes?**

**A.** **0,49,50,54,59,60**

**B.** **50,55,60**

**C.** **49,50,54,55,60,62**

**D.** **50,51,55,56,60,61**

The equivalence classes for this problem are:

· Class 1: speed <= 50

· Class 2: 50 < speed < 55

· Class 3: 55 <= speed < 60

· Class 4: speed >= 60

Option D provides the best coverage because it includes boundary values from each class:

**2. A fitness app counts the number of steps and sends messages to encourage the users to move. Depending on the number of steps, the feedback will be as follows:**

- **up to 1000 inclusive – “Couch potato”**

- **from 1000 to 2000 inclusive – “Bit lazy, huh” - from 2000 to 4000 inclusive – “Keep moving!”**

- **from 4000 to 6000 inclusive – “Nice!”**

- **over 6000 – “Amazing job!”**

**Which test data set will provide the best coverage of equivalence classes?**

**A.** **0, 1000, 2000, 3000, 4000**

**B.** **1000,2001,4000,4001,6000**

**C.** **123,2345,3456,4567,5678**

**D.** **666,1999,2222,5555,6666**

The equivalence classes for this problem are:

· Class 1: steps <= 1000

· Class 2: 1000 < steps <= 2000

· Class 3: 2000 < steps <= 4000

· Class 4: 4000 < steps <= 6000

· Class 5: steps > 6000

Option D provides the best coverage.

***Level 2:***

***1. Complete the tasks of the previous level.***

***2. A device that measures the time and intensity of sunlight received by a plant counts a combination of parameters: time in the sun (less than 3 hours, 3 to 6 hours, and more than 6 hours) and light intensity (very low, low, medium, high).***

***There is the following set of tests:***

|  | ***Hours*** | ***Intensity*** | ***Index of exposure*** |
| --- | --- | --- | --- |
| ***Test 1*** | ***1,5*** | ***very low*** | ***10*** |
| ***Test 2*** | ***7*** | ***medium*** | ***60*** |
| ***Test 3*** | ***0,5*** | ***very low*** | ***10*** |

***What is the minimum number of additional test cases required to ensure that all valid equivalence classes are covered?***

**A. 1**

**B. 2**

**C. 3**

**D. 4**

Test 1 and 3 covers Class 1. Test 2 covers Class 3. Therefore, we need a minimum of 2 additional test cases to ensure that all valid equivalence classes are covered.

***2. The video playback application has requirements. The application will work on devices with this resolution:***

***1. 640x480***

***2. 1280x720***

***3. 1600x1200***

***4. 1920x1080***

***What test case is the result of applying the equivalence partitioning technique? Support your answer.***

***A.*** ***Check that the application plays video on a 1920x1080 display (1 test case)***

***B.*** ***Check that the application plays video on 640x480 and 1920x1080 displays (2test cases)***

***C.*** ***Check that the application plays video on displays of all sizes specified in the requirements (4 test cases)***

***D.*** ***Check that the application plays video on any display size specified in the requirements (1 test case)***

To apply equivalence partitioning, we need to select at least one test case from each of the equivalence classes. The four equivalence classes are:

· Class1: 640x480

· Class 2: 1280x720

· Class 3: 1600x1200

· Class 4: 1920x1080

Option C includes at least one test case from each of the four equivalence classes, which ensures that all valid input values are tested.

***Level 3:***

***1. Complete the tasks of the previous two levels.***

***2. We keep working on a cat photo sharing app.***

***Write requirements for the app that would regulate the minimum and maximum size of photos the users can upload to the system. Also, mention the following parameters: minimum length of comments under photos, maximum length of comments under photos (the more parameters you come up with, the better).***

***Write test cases that incorporate equivalence partitioning and boundary value analysis and will allow you to verify these requirements.***

**Answer:**

***Requirements:***

1. The minimum size of photos that users can upload to the system is 640x480 pixels.
2. The maximum size of photos that users can upload to the system is 1920x1080 pixels.
3. The minimum length of comments under photos is 1 character.
4. The maximum length of comments under photos is 500 characters.

***Test case for minimum size of photo:***

**Preconditions:**

1.Have an iOS mobile device.

2.Have already installed the application.

3.Have a registered user with proper credentials.

**Steps:**

1.Launch the application in an iOS device

2.Log in with valid credentials. Email: mariolima@gmail.com Password: 123456

3.Press de Login Button

4.Tap the "Add Photo" button.

5.Select a 640x480 pixel photo of a cat from the device's photo library.

6.Enter caption “Love My Cat” for the photo and tap "Upload".

**Expected result:**

1.The application opens correctly.

2.

3.Successful Login

4.

5.

6.The photo is successfully uploaded and appears in the user's feed.

***Test case for maximum size of photo:***

**Preconditions:**

1.Have an iOS mobile device.

2.Have already installed the application.

3.Have a registered user with proper credentials.

**Steps:**

1.Launch the application in an iOS device

2.Log in with valid credentials. Email: mariolima@gmail.com Password: 123456

3.Press de Login Button

4.Tap the "Add Photo" button.

5.Select a 1920x1080 pixel photo of a cat from the device's photo library.

6.Enter caption “Love My Cat” for the photo and tap "Upload".

**Expected result:**

1.The application opens correctly.

2.

3.Successful Login

4.

5.

6.The photo is successfully uploaded and appears in the user's feed.

***Test case for photo size just below the minimum limit:***

**Preconditions:**

1.Have an iOS mobile device.

2.Have already installed the application.

3.Have a registered user with proper credentials.

**Steps:**

1.Launch the application in an iOS device

2.Log in with valid credentials. Email: mariolima@gmail.com Password: 123456

3.Press de Log In Button

4.Tap the "Add Photo" button.

5.Select a 639x479 pixel photo of a cat from the device's photo library.

6.Enter caption “Love My Cat” for the photo and tap "Upload".

**Expected result:**

1.The application opens correctly.

2.

3.Successful Login

4.

5.

6. Photo upload fails with an error message indicating that the minimum size is not met.

***Test case for photo size just above the maximum limit:***

**Preconditions:**

1.Have an iOS mobile device.

2.Have already installed the application.

3.Have a registered user with proper credentials.

**Steps:**

1.Launch the application in an iOS device

2.Log in with valid credentials. Email: mariolima@gmail.com Password: 123456

3.Press de Login Button

4.Tap the "Add Photo" button.

5.Select a 1921x1081 pixel photo of a cat from the device's photo library.

6.Enter caption “Love My Cat” for the photo and tap "Upload".

**Expected result:**

1.The application opens correctly.

2.

3.Successful Login

4.

5.

6. Photo upload fails with an error message indicating that the maximum size is exceeded.

***Test case for minimum length of comment:***

**Preconditions:**

1.Have an iOS mobile device.

2.Have already installed the application.

3.Have a registered user with proper credentials.

4.Have already other valid users registered in the app. email:paolaaliss@gmail.com Password: 78919112 username:PaolaAliss32 5.Username:PaolaAliss32 must be already added in mariolima@gmail.com friends list 6.Username:PaolaAliss32 must have already an uploaded cat photo.

**Steps:**

1.Launch the application in an iOS device

2.Log in with valid credentials. Email: mariolima@gmail.com Password: 123456

3.Press de Login Button

4.Scroll through the user's feed to find a photo of a cat.

5.Tap the "Comment" button beneath the photo.

6.Enter the comment in the text field "a" (1 character) as a comment and tap "Post".

**Expected Result:**

1.The application opens correctly.

2.

3.Successful Login

4.

5.

6. Comment is posted successfully and appears beneath the photo.

***Test case for maximum length of comment:***

**Preconditions:**

1.Have an iOS mobile device.

2.Have already installed the application.

3.Have a registered user with proper credentials.

4.Have already other valid users registered in the app. email:paolaaliss@gmail.com Password: 78919112 username:PaolaAliss32 5.Username:PaolaAliss32 must be already added in mariolima@gmail.com friends list 6.Username:PaolaAliss32 must have already an uploaded cat photo.

**Steps:**

1.Launch the application in an iOS device

2.Log in with valid credentials. Email: mariolima@gmail.com Password: 123456

3.Press de Login Button

4.Scroll through the user's feed to find a photo of a cat.

5.Tap the "Comment" button beneath the photo.

6.Enter the comment in the text field *"Wow, what an adorable cat! This photo is a perfect example of why cat pictures are so popular on social media. The cat's fluffy fur and cute face are sure to make anyone smile. I love the way the cat is posing in this photo, it looks like it's ready to pounce on a toy or a treat. The lighting in this picture is also fantastic, it really highlights the cat's features and makes the photo pop.*

*I can see why this cat has so many followers on this cat sharing photo app, it's just too cute to resist! I love seeing all the different cats on this app, they all have their own unique personalities and quirks. It's so fun to see what each cat is up to and what kind of mischief they're getting into.*

*This cat sharing photo app is the perfect place to show off your furry friend to the world. Whether your cat is napping in a sunbeam or playing with a toy, there's always a great photo opportunity to capture. I love scrolling through the feed and seeing all the amazing photos that users have posted.*

*Thanks for sharing this adorable cat photo with us! It's sure to brighten anyone's day and bring a smile to their face. Keep those cute cat photos coming, we can't get enough!"* (500 characters) as a comment and tap "Post".

**Expected Result:**

1.The application opens correctly.

2.

3.Successful Login

4.

5.

6. Comment is posted successfully and appears beneath the photo.

***Test case for comment length just below the minimum limit:***

**Preconditions:**

1.Have an iOS mobile device.

2.Have already installed the application.

3.Have a registered user with proper credentials.

4.Have already other valid users registered in the app. email:paolaaliss@gmail.com Password: 78919112 username:PaolaAliss32 5.Username:PaolaAliss32 must be already added in mariolima@gmail.com friends list 6.Username:PaolaAliss32 must have already an uploaded cat photo.

**Steps:**

1.Launch the application in an iOS device

2.Log in with valid credentials. Email: mariolima@gmail.com Password: 123456

3.Press de Login Button

4.Scroll through the user's feed to find a photo of a cat.

5.Tap the "Comment" button beneath the photo.

6.Enter no comment in the text field " " (0 character) as a comment and tap "Post".

**Expected Result:**

1.The application opens correctly.

2.

3.Successful Login

4.

5.

6. Comment fails to post with an error message indicating that the minimum length is not met.

***Test case for comment length just above the maximum limit:***

**Preconditions:**

1.Have an iOS mobile device.

2.Have already installed the application.

3.Have a registered user with proper credentials.

4.Have already other valid users registered in the app. email:paolaaliss@gmail.com Password: 78919112 username: PaolaAliss32 5.Username: PaolaAliss32 must be already added in mariolima@gmail.com friends list 6.Username: PaolaAliss32 must have already an uploaded cat photo.

**Steps:**

1.Launch the application in an iOS device

2.Log in with valid credentials. Email: mariolima@gmail.com Password: 123456

3.Press de Log In Button

4.Scroll through the user's feed to find a photo of a cat.

5.Tap the "Comment" button beneath the photo.

6.Enter the comment in the text field *"Wow, what an adorable cat! This photo is a perfect example of why cat pictures are so popular on social media. The cat's fluffy fur and cute face are sure to make anyone smile. I love the way the cat is posing in this photo, it looks like it's ready to pounce on a toy or a treat. The lighting in this picture is also fantastic, it really highlights the cat's features and makes the photo pop.*

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*Thanks for sharing this adorable cat photo with us! It's sure to brighten anyone's day and bring a smile to their face. Keep those cute cat photos coming, we can't get enough!!"* (501 character) as a comment and tap "Post".

**Expected Result:**

1.The application opens correctly.

2.

3.Successful Login

4.

5.

6. Comment fails to post with an error message indicating that the maximum length is exceeded.