



**NANYANG
TECHNOLOGICAL
UNIVERSITY**
SINGAPORE

School of Computer Science and Engineering

CZ3002 Advanced Software Engineering

Test Cases and Requirements Test Coverage report

Project Name: Hangout



Group Name: Mac & Cheese

Lab Group: TDDP1

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1 Test Cases for Users' Mobile App

1.1 Register User

Equivalence class

| | |
|----------------------|---|
| User Input: Email | |
| Valid Email | Strings containing character @ and .com |
| Invalid Email | Strings not containing character @ and .com |
| Invalid Email | Email already in use |
| User input: Password | |
| Valid Password | At least 6 characters long and not more than 15 characters long. Must have at least one special character. |
| Invalid Password | Less than 6 characters long. |
| Invalid Password | More than 15 characters long. |
| Invalid Password | No special characters used. |

| Case No. | Username | Email | Password | Expected Output | Actual Output |
|----------|-------------|----------------------|----------------|------------------|------------------|
| 1 | Not Entered | Valid Email | Valid Password | Fail to register | Fail to register |
| 2 | Entered | Not Entered | Valid Password | Fail to register | Fail to register |
| 3 | Entered | Invalid Email Format | Valid Password | Fail to register | Fail to register |
| 4 | Entered | Email already in use | Valid Password | Fail to register | Fail to register |

| | | | | | |
|---|---------|-------------|--------------------------------|------------------|------------------|
| 5 | Entered | Valid Email | Not Entered | Fail to register | Fail to register |
| 6 | Entered | Valid Email | Less than 6 characters | Fail to register | Fail to register |
| 7 | Entered | Valid Email | More than 15 characters | Fail to register | Fail to register |
| 8 | Entered | Valid Email | No special characters | Fail to register | Fail to register |

1.2 Login User

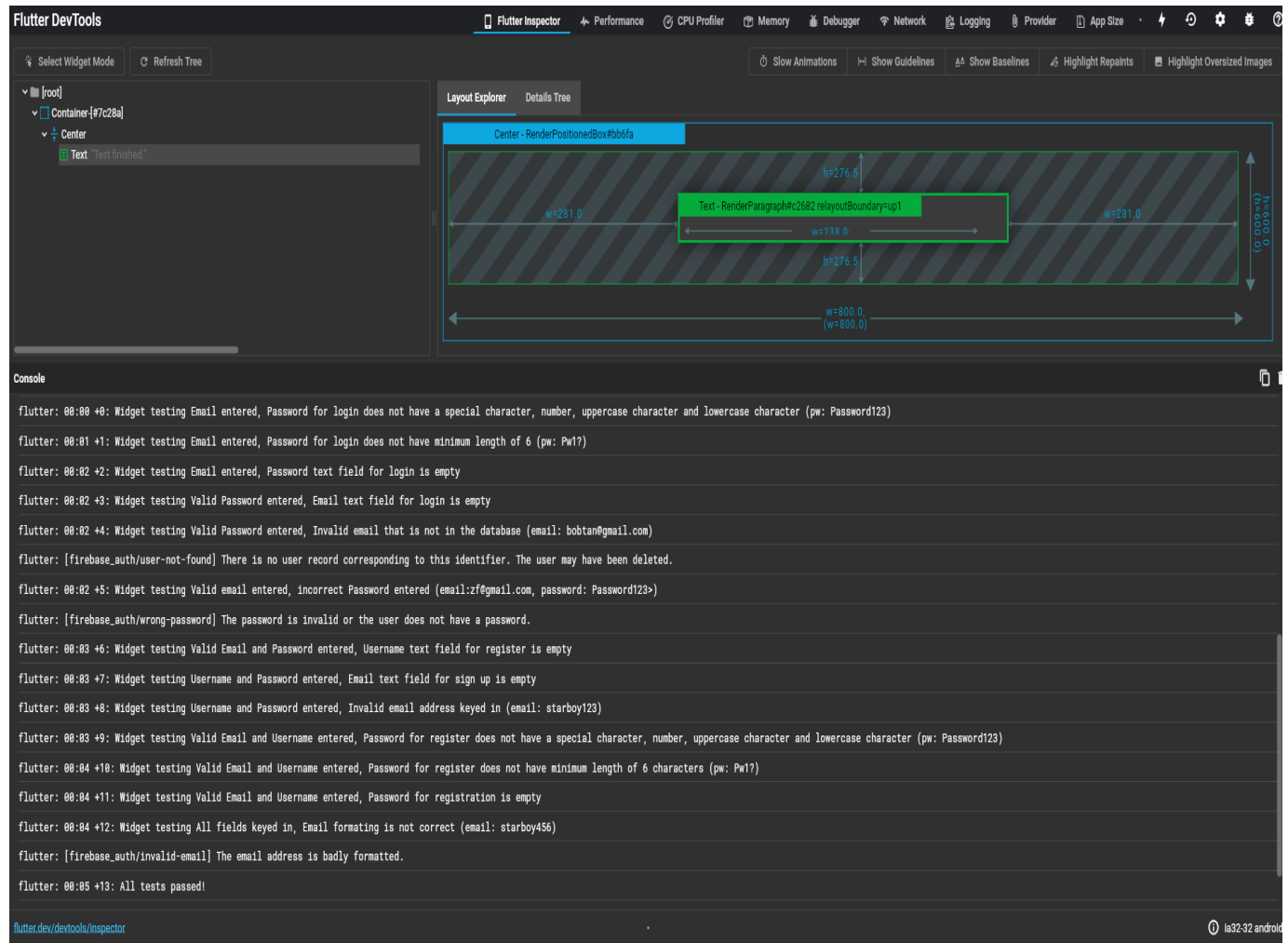
Equivalence class

| | |
|----------------------|---|
| User Input: Email | |
| Valid Email | Strings containing character @ and .com |
| Invalid Email | Strings not containing character @ and .com |
| Invalid Email | Email does not exist in Firebase |
| User input: Password | |
| Valid Password | Matches password in Firebase |
| Invalid Password | Does not match password in Firebase |
| Invalid Password | Less than 6 characters long. |
| Invalid Password | More than 15 characters long. |
| Invalid Password | No special characters used. |

| Case No. | Email | Password | Expected Output | Actual Output |
|----------|--------------------|----------------|-----------------|---------------|
| 1 | Not Entered | Valid Password | Fail to login | Fail to login |

| | | | | |
|---|-----------------------------|---|---------------|---------------|
| 2 | Invalid Email Format | Valid Password | Fail to login | Fail to login |
| 3 | Email already in use | Valid Password | Fail to login | Fail to login |
| 4 | Valid Email | Not Entered | Fail to login | Fail to login |
| 5 | Valid Email | Less than 6 characters | Fail to login | Fail to login |
| 6 | Valid Email | More than 15 characters | Fail to login | Fail to login |
| 7 | Valid Email | No special characters | Fail to login | Fail to login |
| 8 | Valid Email | Password does not match Firebase | Fail to login | Fail to login |

1.2.1 Flutter Test for Login and Register



Based on the image above, below is the output of the test file:

flutter: 00:00 +0: Widget testing Email entered, Password for login does not have a special character, number, uppercase character and lowercase character (pw: Password123)

flutter: 00:01 +1: Widget testing Email entered, Password for login does not have minimum length of 6 (pw: Pw1?)

flutter: 00:02 +2: Widget testing Email entered, Password text field for login is empty
flutter: 00:02 +3: Widget testing Valid Password entered, Email text field for login is empty

flutter: 00:02 +4: Widget testing Valid Password entered, Invalid email that is not in the database (email: bobtan@gmail.com)

flutter: [firebase_auth/user-not-found] There is no user record corresponding to this identifier. The user may have been deleted.

flutter: 00:02 +5: Widget testing Valid email entered, incorrect Password entered (email:zf@gmail.com, password: Password123>)

flutter: [firebase_auth/wrong-password] The password is invalid or the user does not have a password.

flutter: 00:03 +6: Widget testing Valid Email and Password entered, Username text field for register is empty

flutter: 00:03 +7: Widget testing Username and Password entered, Email text field for sign up is empty

flutter: 00:03 +8: Widget testing Username and Password entered, Invalid email address keyed in (email: starboy123)

flutter: 00:03 +9: Widget testing Valid Email and Username entered, Password for register does not have a special character, number, uppercase character and lowercase character (pw: Password123)

flutter: 00:04 +10: Widget testing Valid Email and Username entered, Password for register does not have minimum length of 6 characters (pw: Pw1?)

flutter: 00:04 +11: Widget testing Valid Email and Username entered, Password for registration is empty

flutter: 00:04 +12: Widget testing All fields keyed in, Email formatting is not correct (email: starboy456)

flutter: [firebase_auth/invalid-email] The email address is badly formatted.

flutter: 00:05 +13: All tests passed!

1.3 Update Profile

| Cas e No. | Usenam e | Email | Bio | Locatio n | Phone | Expected Output | Actual Output |
|-----------|--------------------|-----------------------------|---------|-----------|---------|------------------------|------------------------|
| 1 | Not Entered | Valid Email | Entered | Entered | Entered | Fail to update profile | Fail to update profile |
| 2 | Entered | Not Entered | Entered | Entered | Entered | Fail to update profile | Fail to update profile |
| 3 | Entered | Invalid Email Format | Entered | Entered | Entered | Fail to update profile | Fail to update profile |

| | | | | | | | |
|---|---------|-------------|--------------------|--------------------|--------------------|------------------------|------------------------|
| 4 | Entered | Valid Email | Not Entered | Entered | Entered | Fail to update profile | Fail to update profile |
| 5 | Entered | Valid Email | Entered | Not Entered | Entered | Fail to update profile | Fail to update profile |
| 6 | Entered | Valid Email | Entered | Entered | Not Entered | Fail to update profile | Fail to update profile |

1.4 Create Meetup

| Case No. | Title | Date | Location | Start Time | End Time | Description | Category | Expected Output | Actual Output |
|----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------|-----------------------|
| 1 | Not Entered | Entered | Entered | Entered | Entered | Entered | Entered | Fail to create meetup | Fail to create meetup |
| 2 | Entered | Not Entered | Entered | Entered | Entered | Entered | Entered | Fail to create meetup | Fail to create meetup |
| 4 | Entered | Entered | Not Entered | Entered | Entered | Entered | Entered | Fail to create meetup | Fail to create meetup |
| 5 | Entered | Entered | Entered | Not Entered | Entered | Entered | Entered | Fail to create meetup | Fail to create meetup |
| 6 | Entered | Entered | Entered | Entered | Not Entered | Entered | Entered | Fail to create meetup | Fail to create meetup |
| 7 | Entered | Entered | Entered | Entered | Entered | Not Entered | Entered | Fail to create meetup | Fail to create meetup |
| 8 | Entered | Entered | Entered | Entered | Entered | Entered | Not Entered | Fail to create meetup | Fail to create meetup |

2 Test Cases for Administration Web Application

2.1 Register Administrator

Equivalence class

| | |
|----------------------|---|
| User Input: Email | |
| Valid Email | Strings containing character @ and .com |
| Invalid Email | Strings not containing character @ and .com |
| Invalid Email | Email already in use |
| User input: Password | |
| Valid Password | At least 6 characters long and not more than 15 characters long. Must have at least one special character. |
| Invalid Password | Less than 6 characters long. |
| Invalid Password | More than 15 characters long. |
| Invalid Password | No special characters used. |

| Case No. | Username | Email | Password | Expected Output | Actual Output |
|----------|--------------------|-----------------------------|----------------|------------------|------------------|
| 1 | Not Entered | Valid Email | Valid Password | Fail to register | Fail to register |
| 2 | Entered | Not Entered | Valid Password | Fail to register | Fail to register |
| 3 | Entered | Invalid Email Format | Valid Password | Fail to register | Fail to register |
| 4 | Entered | Email already in use | Valid Password | Fail to register | Fail to register |

| | | | | | |
|---|---------|-------------|--------------------------------|------------------|------------------|
| 5 | Entered | Valid Email | Not Entered | Fail to register | Fail to register |
| 6 | Entered | Valid Email | Less than 6 characters | Fail to register | Fail to register |
| 7 | Entered | Valid Email | More than 15 characters | Fail to register | Fail to register |
| 8 | Entered | Valid Email | No special characters | Fail to register | Fail to register |

2.2 Login Administrator

Equivalence class

| | |
|----------------------|---|
| User Input: Email | |
| Valid Email | Strings containing character @ and .com |
| Invalid Email | Strings not containing character @ and .com |
| Invalid Email | Email does not exist in Firebase |
| User input: Password | |
| Valid Password | Matches password in Firebase |
| Invalid Password | Does not match password in Firebase |
| Invalid Password | Less than 6 characters long. |
| Invalid Password | More than 15 characters long. |
| Invalid Password | No special characters used. |

| Case No. | Email | Password | Expected Output | Actual Output |
|----------|--------------------|----------------|-----------------|---------------|
| 1 | Not Entered | Valid Password | Fail to login | Fail to login |

| | | | | |
|---|-----------------------------|---|---------------|---------------|
| 2 | Invalid Email Format | Valid Password | Fail to login | Fail to login |
| 3 | Email already in use | Valid Password | Fail to login | Fail to login |
| 4 | Valid Email | Not Entered | Fail to login | Fail to login |
| 5 | Valid Email | Less than 6 characters | Fail to login | Fail to login |
| 6 | Valid Email | More than 15 characters | Fail to login | Fail to login |
| 7 | Valid Email | No special characters | Fail to login | Fail to login |
| 8 | Valid Email | Password does not match Firebase | Fail to login | Fail to login |

2.3 Create Activity (e.g. Places of Interests)

| Case No. | Name | Description | Location | Category | Display Image | Trending | Category | Expected Output | Actual Output |
|----------|--------------------|--------------------|--------------------|--------------------|---------------|----------|----------|-------------------------|-------------------------|
| 1 | Not Entered | Entered | Entered | Entered | Entered | Entered | Entered | Fail to create activity | Fail to create activity |
| 2 | Entered | Not Entered | Entered | Entered | Entered | Entered | Entered | Fail to create activity | Fail to create activity |
| 3 | Entered | Entered | Not Entered | Entered | Entered | Entered | Entered | Fail to create activity | Fail to create activity |
| 4 | Entered | Entered | Entered | Not Entered | Entered | Entered | Entered | Fail to create activity | Fail to create activity |
| 5 | Entered | Entered | Entered | Entered | Not | Entered | Entered | Create | Create |

| | | | | | | | | | |
|---|---------|---------|---------|---------|-------------|---------|----------------|--------------------------------------|--------------------------------------|
| | | | | | Entere d | | | activity with default image | activity with default image |
| 6 | Entered | Entered | Entered | Entered | Entere d | Entered | Entered | Fail to create activity | Fail to create activity |
| 7 | Entered | Entered | Entered | Entered | Entere d | Entered | Not Entered | Fail to create activity | Fail to create activity |

2.4 Edit Activity (e.g. Places of Interests)

| Case No. | Name | Descri ption | Location | Catego ry | Displa y Image | Trending | Category | Expecte d Output | Actual Output |
|----------|--------------------|--------------------|----------------|----------------|----------------------|----------|----------|--|--|
| 1 | Not Entere d | Entered | Entered | Entered | Entere d | Entered | Entered | Fail to create activity | Fail to create activity |
| 2 | Entered | Not Entere d | Entered | Entered | Entere d | Entered | Entered | Fail to create activity | Fail to create activity |
| 3 | Entered | Entered | Not Entered | Entered | Entere d | Entered | Entered | Fail to create activity | Fail to create activity |
| 4 | Entered | Entered | Entered | Not Entered | Entere d | Entered | Entered | Fail to create activity | Fail to create activity |
| 5 | Entered | Entered | Entered | Entered | Not Entere d | Entered | Entered | Create activity with default image | Create activity with default image |
| 6 | Entered | Entered | Entered | Entered | Entere d | Entered | Entered | Fail to create | Fail to create |

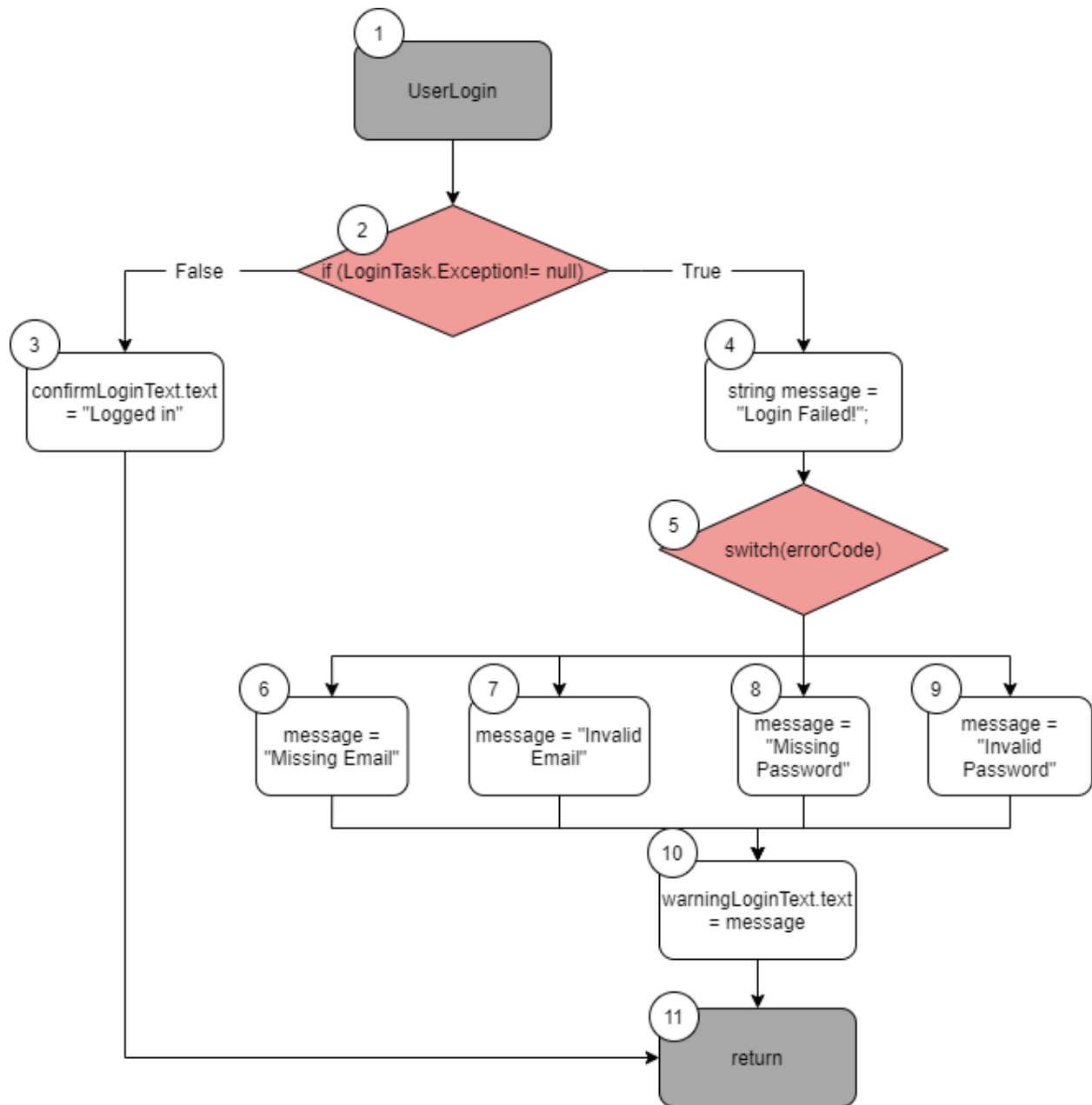
| | | | | | | | | | |
|---|---------|---------|---------|---------|---------|---------|--------------------|-------------------------|-------------------------|
| | | | | | | | | activity | activity |
| 7 | Entered | Entered | Entered | Entered | Entered | Entered | Not Entered | Fail to create activity | Fail to create activity |

2.5 Delete Activity (e.g. Places of Interests)

| Case No. | Confirm | Cancel | Expected Output | Actual Output |
|----------|----------------|----------------|-------------------------|-------------------------|
| 1 | Pressed | Unpressed | Delete activity | Delete activity |
| 2 | Unpressed | Pressed | Fail to delete activity | Fail to delete activity |

White Box Testing

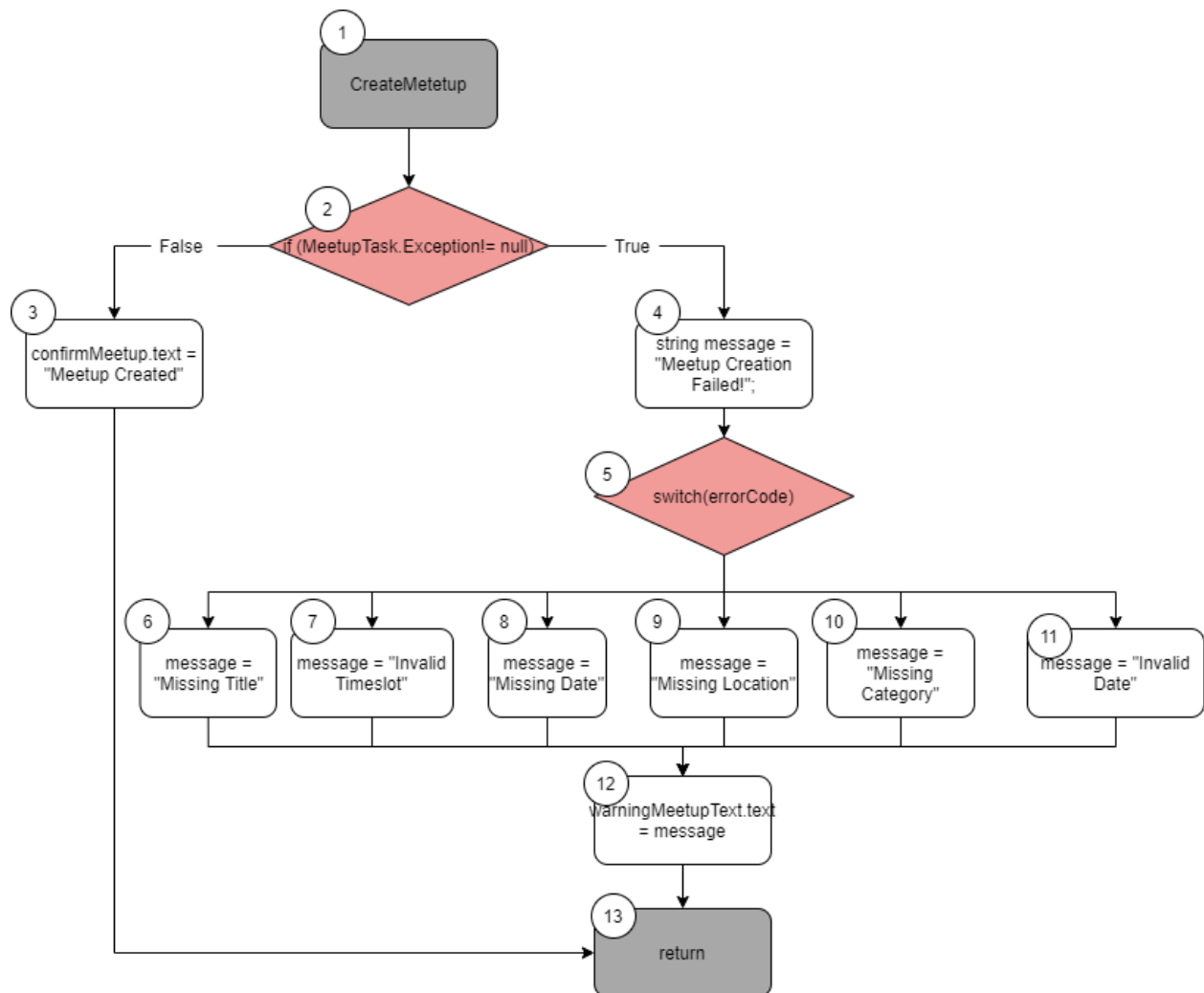
Login User



| | |
|-----------------------|--------------------------------|
| Cyclomatic Complexity | $CC = 14 - 11 + 2 = 5$ |
| Basic Path | 1. 1,2,3,11 (Most common path) |

| | |
|----------------------|--|
| | <ol style="list-style-type: none"> 2. 1,2,4,5,6,10,11 3. 1,2,4,5,7,10,11 4. 1,2,4,5,8,10,11 5. 1,2,4,5,9,10,11 |
| Test Cases | <ol style="list-style-type: none"> 1. User's email address and password are accepted and the user is logged into the system. 2. User login details are not accepted. User has not entered his email. 3. User login details are not accepted. User has entered an invalid email. 4. User login details are not accepted. User has not entered his password. 5. User login details are not accepted. User has entered the wrong password. |
| Real Execution Paths | <ol style="list-style-type: none"> 1. 1,2,3,11 (Most common path) 2. 1,2,4,5,6,10,11 3. 1,2,4,5,7,10,11 4. 1,2,4,5,8,10,11 5. 1,2,4,5,9,10,11 |

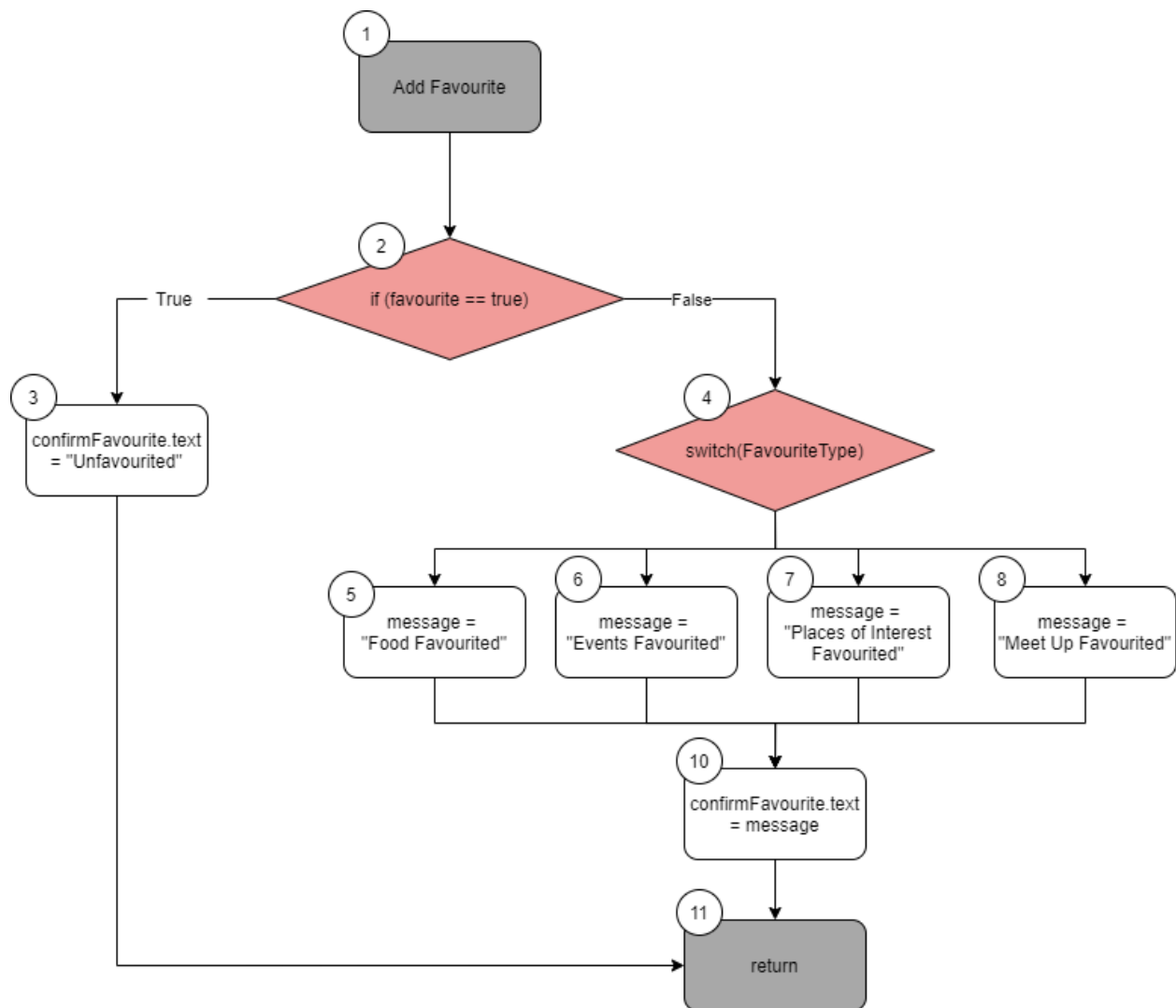
Create Meetup



| | |
|-----------------------|--|
| Cyclomatic Complexity | CC = 18 - 13 + 2 = 7 |
| Basic Path | <ol style="list-style-type: none"> 1, 2, 3, 13 (Most common path) 1, 2, 4, 5, 6, 12, 13 1, 2, 4, 5, 7, 12, 13 1, 2, 4, 5, 8, 12, 13 1, 2, 4, 5, 9, 12, 13 1, 2, 4, 5, 10, 12, 13 1, 2, 4, 5, 11, 12, 13 |
| Test Cases | <ol style="list-style-type: none"> 1. Meetup is created successfully. 2. Meetup creation failed. Title is missing. 3. Meetup creation failed. Timeslot is invalid. (Ending time is set before |

| | |
|----------------------|---|
| | <p>starting time).</p> <ol style="list-style-type: none"> Meetup creation failed. Date is missing. Meetup creation failed. Location is missing. Meetup creation failed. Category is missing. Meetup creation failed. Date is invalid (Set before current date). |
| Real Execution Paths | <ol style="list-style-type: none"> 1,2,3,13 (Most common path) 1,2,4,5,6,12,13 1,2,4,5,7,12,13 1,2,4,5,8,12,13 1,2,4,5,9,12,13 1,2,4,5,10,12,13 1,2,4,5,11,12,13 |

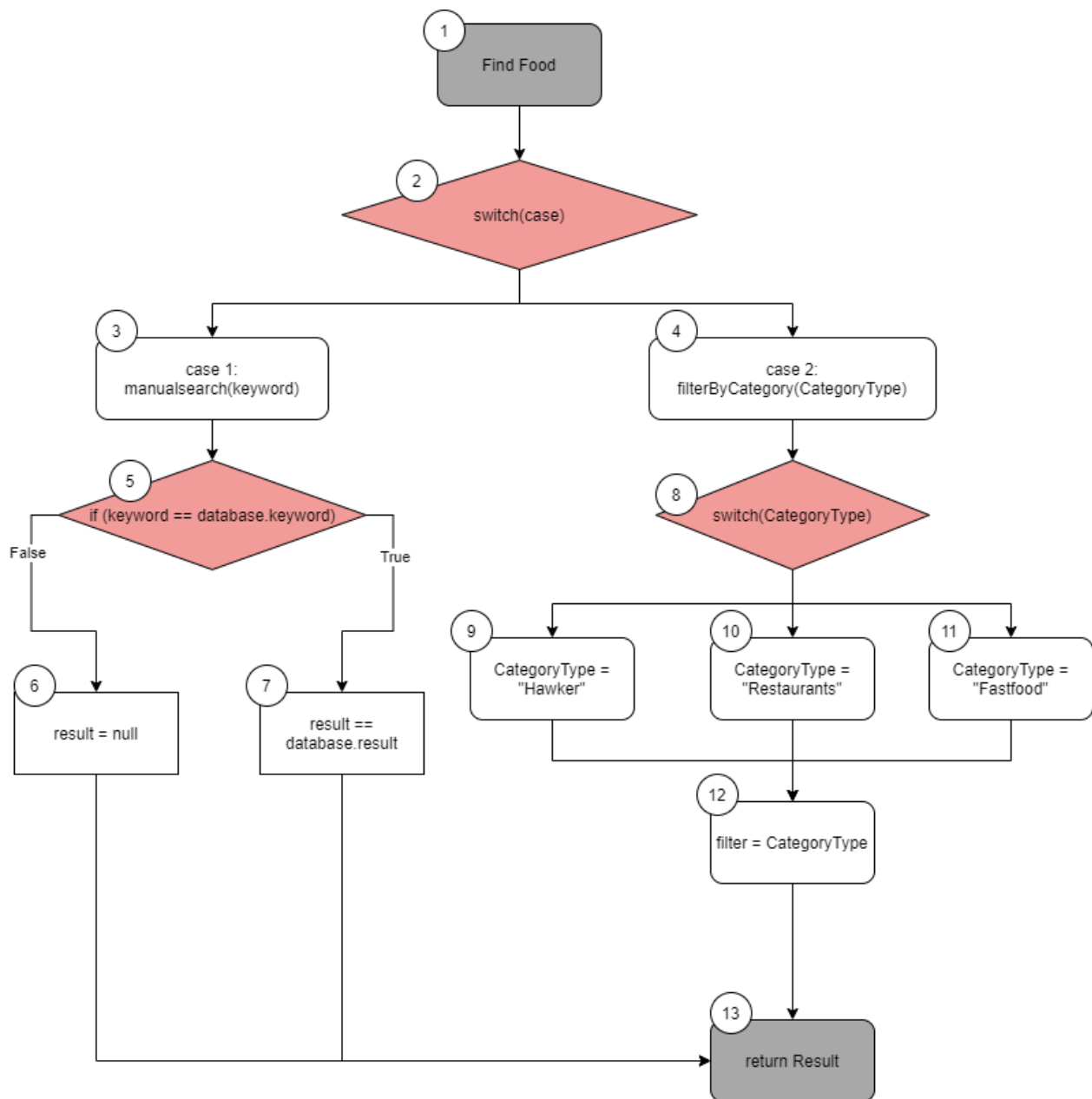
Add Favourites



| | |
|-----------------------|---|
| Cyclomatic Complexity | $CC = 13 - 10 + 2 = 5$ |
| Basic Path | <ol style="list-style-type: none">1, 2, 4, 5, 10, 11 (Most Common Path)1, 2, 3, 111, 2, 4, 6, 10, 111, 2, 4, 7, 10, 111, 2, 4, 8, 10, 11 |
| Test Cases | <ol style="list-style-type: none">Food is favoured.Favourited event is unfavourited. (Regardless of Food, Event, Place of Interest or Meetup).Events is favoured. |

| | |
|----------------------|--|
| | <ul style="list-style-type: none">4. Places of event is favourited.5. Meetup is favourited. |
| Real Execution Paths | <ul style="list-style-type: none">1. 1,2,4,5,10,11 (Most Common Path)2. 1,2,3,113. 1,2,4,6,10,114. 1,2,4,7,10,115. 1,2,4,8,10,11 |

Find Food



| | |
|-----------------------|---|
| Cyclomatic Complexity | $CC = 16 - 13 + 2 = 5$ |
| Basic Path | 1. 1,2,3,5,7,13 (Most common path) 2. 1,2,3,5,7,13 3. 1,2,4,8,9,12,13 4. 1,2,4,8,10,12,13 5. 1,2,4,8,11,12,13 |
| Test Cases | 1. User types inside search bar. |

| | |
|----------------------|---|
| | <p>Search bar yields result.</p> <p>2. User types inside search bar. Search bar yields no result.</p> <p>3. User clicks on “Hawker” category.</p> <p>4. User clicks on “Restaurants” category.</p> <p>5. User clicks on “Fastfood” category</p> |
| Real Execution Paths | <p>1. 1,2,3,5,7,13 (Most common path)</p> <p>2. 1,2,3,5,7,13</p> <p>3. 1,2,4,8,9,12,13</p> <p>4. 1,2,4,8,10,12,13</p> <p>5. 1,2,4,8,11,12,13</p> |