

## 1. Test User\_Reg Function

### Inputs

User-name, password, email address, and other user information

### Unit test

1. Check User Information
  - A. Check each 6 fields are filled in
2. DB Connection
  - A. Check DB Connection works correctly
  - B. Check SELECT SQL works or not
3. Register user information to the UserInfo table otherwise return error
  - A. Check INSERT SQL works or not

### Test Case

Test 1(with correct inputs)

The results should be valid and register user information to the UserInfo table.

Test 2(with incorrect inputs (missing or incorrect formation))

The results should be invalid and return the error message to users.

Test 3(with duplicated inputs)

Email and Username must be unique and others can be duplicative.

The results should be invalid and return the error message to users

### Outputs

Succeed or fail User Registration

## 2. Test Advertisement Registration

### Input

Company name, Advertiser URL, Ad Image URL, Username, Password

### Unit test

1. Check correct information that user fills in
  - A. Check the result when Company name is missed
  - B. Check the result when Advertiser URL is missed
  - C. Check the result when Ad Image URL is missed
  - D. Check the result when Username and password are missed

2. Check DB Connection
  - A. Check DB Connection works correctly
  - B. Check SELECT SQL works or not.
  - C. Check INSERT SQL works or not
3. Check duplicated data between new data and data in the DB
  - A. Check Company name is already in DB -> Complete registration
  - B. Check Advertiser & Ad Image URL are already in DB -> Error
  - C. Check Username is already in DB -> Check Password
    - i. Success : Complete registration
    - ii. Failure : Incorrect password

#### Outputs

Succeed or fail Ad Registration

### 3. Test Website Registration

#### Input

Manual test

Website URL, Username, Password

#### Test Case 1:

Website URL is blank

Output: Fail to register, "All fields are mandatory"

#### Test Case 2:

Username is blank

Output: Fail to register, "All fields are mandatory"

#### Test Case 3:

Password is blank

Output: Fail to register, "All fields are mandatory"

#### Test Case 4:

Website URL is invalid

Output: Fail to register, "Valid website required"

#### Test Case 5:

Username is invalid

Output: Fail to register, "Incorrect username/password"

Test Case 6:

Password doesn't match username

Output: Fail to register, "Incorrect username/password"

Test Case 7:

Website doesn't match any ads

Output: Registration Success, default ad displayed

Test Case 8:

All fields filled correctly and website matches some ads

Output: Registration success, display corresponding ads

## **4. Test adMatch**

Automated test

Input: website URL

Test Case 1:

Website that doesn't contain any keywords that there are ads for

Output: default ad information returned

Test Case 2:

Website that contains one keyword that there are ads for

Output: ad related to the one keyword should be returned

Test Case 3:

Website that contains multiple keywords that there are ads for

Output: Ad related to the keyword of the highest relevance is returned or if no ad is related to that keyword the next most relevant keyword is used etc.