

# MTurk Framework Test Document

By Akshat, Jonathan, Muhammad, Walker

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## Login Page

Test # `LoginTests`

- **Reference to User Story:** *"As an administrator, I want to be able to login to my account, so that I can securely access the website on my account."*
  - **User Story:** MH1
- **Step-by-Step Description:**
  1. Tests if the correct Login template is used.
  2. Creates a user object which is then used to test whether the user is authenticated.
- **Screenshots:**

```
(venv) PS C:\Users\Paperspace\Documents\GitHub\mturk-experiment\mturksite> python manage.py test
Creating test database for alias 'default'...
System check identified no issues (0 silenced).
..
-----
Ran 2 tests in 1.742s

OK
Destroying test database for alias 'default'...
(venv) PS C:\Users\Paperspace\Documents\GitHub\mturk-experiment\mturksite> |
```

## Overview Page

Test # `HomeViewTests`

- **Reference to User Story:** Related to other user stories, required testing
  - **User Story:** -
- **Step-by-Step Description:**
  1. Tests if the correct Home template is used.
- **Screenshots:**

```
(venv) PS C:\Users\Paperspace\Documents\GitHub\mturk-experiment\mturksite> python manage.py test
Creating test database for alias 'default'...
System check identified no issues (0 silenced).
..
-----
Ran 2 tests in 1.742s

OK
Destroying test database for alias 'default'...
(venv) PS C:\Users\Paperspace\Documents\GitHub\mturk-experiment\mturksite> |
```

## Experiments Page

Test # `ExperimentsViewTests`, `AddExperimentViewTests`,  
`ExperimentFilterViewTests`

- **Reference to User Story:** Related to other user stories, required testing
  - **User Story:** -

- **Step-by-Step Description:**
  1. Tests if the correct Experiment template is used.
  2. Tests if the correct Add Experiment template is used.
  3. Tests if the correct Experiment Filter template is used.
  4. Creates a test filter then tests if the filter shows up in Experiments.
- **Screenshots:**

```
(venv) PS C:\Users\Paperspace\Documents\GitHub\mturk-experiment\mturksite> python manage.py test
Creating test database for alias 'default'...
System check identified no issues (0 silenced).
..C:\Users\Paperspace\Documents\GitHub\mturk-experiment\mturksite\mturkapp\views.py:52: UnorderedObjectListWarning: Pagination may yield inconsistent results with an unordered object_list: <class 'mturkapp.models.Experiment'> QuerySet.
  paginator = Paginator(experiment_items, 10)
..
-----
Ran 4 tests in 2.230s

OK
Destroying test database for alias 'default'...
(venv) PS C:\Users\Paperspace\Documents\GitHub\mturk-experiment\mturksite> |
```

## HITTypes Page

Test # `HittypeViewTests, AddHittypeViewTests`

- **Reference to User Story:** *“As an administrator, I want to be able to create HITTypes, so that HITs can be grouped by HITTypes”*
  - **User Story:** MH3
- **Step-by-Step Description:**
  1. Tests if the correct HITTypes template is used.
  2. Tests HITType filters by creating two HITType objects and filtering.
  3. Tests if the correct Add HITTypes template is used.
  4. Creates a HITType to test if it is being saved to the database correctly.
  5. Execute an API call for creating a HITType to test if API is working correctly.
- **Screenshots:**

## HITs Page

Test # `HitsViewTests, AddHitViewTests`

- **Reference to User Story:**
  - **User Story:** MH4, MH5, MH6
- **Step-by-Step Description:**
  1. Tests if the correct HIT template is used.
  2. Tests the filter on the HITs page.
  3. Tests if the correct add HIT template is used.
  4. NOTE: The following tests will fail without an account. Tests if HITS are being added to the database.
  5. Execute an API call for creating a HIT to test if API is working correctly.
- **Screenshots:**

```
(venv) PS C:\Users\Paperspace\Documents\GitHub\mturk-experiment\mturksite> python manage.py test
Creating test database for alias 'default'...
System check identified no issues (0 silenced).
..
-----
Ran 2 tests in 0.895s

OK
Destroying test database for alias 'default'...
(venv) PS C:\Users\Paperspace\Documents\GitHub\mturk-experiment\mturksite> 
```

## HitsViewTests console output

```
(venv) PS C:\Users\Paperspace\Documents\GitHub\mturk-experiment\mturksite> python manage.py test
Creating test database for alias 'default'...
System check identified no issues (0 silenced).
.FE
=====
ERROR: test_create_hit_with_hittype_apicall (mturkapp.tests.test_views_and_models.AddHitViewTests)
-----
Traceback (most recent call last):
  File "C:\Users\Paperspace\Documents\GitHub\mturk-experiment\mturksite\mturkapp\tests\test_views_and_models.py", line 203, in test_create_hit_with_hittype_apicall
    response = mturk.create_hit_with_hit_type(
  File "C:\Users\Paperspace\Documents\GitHub\mturk-experiment\venv\lib\site-packages\botocore\client.py", line 357, in _api_call
    return self._make_api_call(operation_name, kwargs)
  File "C:\Users\Paperspace\Documents\GitHub\mturk-experiment\venv\lib\site-packages\botocore\client.py", line 676, in _make_api_call
    raise error_class(parsed_response, operation_name)
botocore.errorfactory.RequestError: An error occurred (RequestError) when calling the CreateHitWithHitType operation: HITType 3CS3U1VE5KBFL43TLU25PEJ0XNKS0M does not exist. (1618271751920 s)

=====
FAIL: test_addHitView_POST_and_DB (mturkapp.tests.test_views_and_models.AddHitViewTests)
-----
Traceback (most recent call last):
  File "C:\Users\Paperspace\Documents\GitHub\mturk-experiment\mturksite\mturkapp\tests\test_views_and_models.py", line 196, in test_addHitView_POST_and_DB
    self.assertEqual(hit_items.count(),1)
AssertionError: 0 != 1

-----
Ran 3 tests in 2.022s
```

## Error if testing without an account

```
(venv) PS C:\Users\saman\Desktop\COMP401\MTurk\mturk-experiment\mturk-experiment\mturksite> python manage.py test
Creating test database for alias 'default'...
System check identified no issues (0 silenced).
...
-----
Ran 3 tests in 3.883s

OK
Destroying test database for alias 'default'...
```

## Test works with an account

## Active Assignments Page

Test # `AsgmtsActiveViewTests`

- **Reference to User Story:** As an administrator, I want to be able to view assignments on the dashboard, so that I can easily see the status of assignments.
  - **User Story:** # MH2
- **Step-by-Step Description:**
  1. Tests if the correct Active Assignments template is used.
  2. Creates a HIT and enters the assito test if it is being saved to the database correctly.
- **Screenshots:**

```
(venv) PS C:\Users\Paperspace\Documents\GitHub\mturk-experiment\mturksite> python manage.py test
Creating test database for alias 'default'...
System check identified no issues (0 silenced).
..
-----
Ran 2 tests in 1.161s

OK
Destroying test database for alias 'default'...
(venv) PS C:\Users\Paperspace\Documents\GitHub\mturk-experiment\mturksite> █
```

```
(venv) PS C:\Users\Paperspace\Documents\GitHub\mturk-experiment\mturksite> python manage.py test
Creating test database for alias 'default'...
System check identified no issues (0 silenced).
.....
-----
Ran 5 tests in 4.201s

OK
Destroying test database for alias 'default'...
(venv) PS C:\Users\Paperspace\Documents\GitHub\mturk-experiment\mturksite> █
```

## Completed Assignments Page

Test # `AsgmtsCompletedViewTests`

- **Reference to User Story:** As an administrator, I want to be able to view assignments on the dashboard, so that I can easily see the status of assignments.
  - **User Story:** # MH2
- **Step-by-Step Description:**
  1. Tests if the correct Completed Assignment template is used.
- **Screenshots:**

```
(venv) PS C:\Users\Paperspace\Documents\GitHub\mturk-experiment\mturksite> python manage.py test
Creating test database for alias 'default'...
System check identified no issues (0 silenced).
.
-----
Ran 1 test in 0.551s

OK
Destroying test database for alias 'default'...
(venv) PS C:\Users\Paperspace\Documents\GitHub\mturk-experiment\mturksite> █
```

## Qualifications Page

Test # `QualificationsViewTest, AddQualificationViewTests`

- **Reference to User Story:** Related to creating Hitttype, even assigning qualification to worker however this functionality has not been implemented
  - **User Story:** -
- **Step-by-Step Description:**
  1. Tests if the correct Qualification template is used.
  2. Tests if the correct Add Qualification template is used.
  3. Execute an API call for creating a Qualification to test if API is working correctly.
  4. Tests if new Qualifications are being added to the database correctly.
- **Screenshots:**

```
(venv) PS C:\Users\Paperspace\Documents\GitHub\mturk-experiment\mturksite> python manage.py test
Creating test database for alias 'default'...
System check identified no issues (0 silenced).
....
-----
Ran 4 tests in 3.517s

OK
Destroying test database for alias 'default'...
(venv) PS C:\Users\Paperspace\Documents\GitHub\mturk-experiment\mturksite> |
```

## Workers Page

Test # `WorkersViewTests`

- **Reference to User Story:** Related to getting the worker data who submitted the assignment so it's important for status of assignment.
  - User Story #
- **Step-by-Step Description:**
  1. Tests if the correct Worker template is used.
  2. NOTE: The following tests will fail without an account. Tests the API call for retrieving workers.
- **Screenshots:**

```
(venv) PS C:\Users\Paperspace\Documents\GitHub\mturk-experiment\mturksite> python manage.py test
Creating test database for alias 'default'...
Got an error creating the test database: database "mytestdatabase" already exists

Type 'yes' if you would like to try deleting the test database 'mytestdatabase', or 'no' to cancel: yes
Destroying old test database for alias 'default'...
System check identified no issues (0 silenced).
E.
=====
ERROR: test_workersView_APICall (mturkapp.tests.test_views_and_models.WorkersViewTests)
-----
Traceback (most recent call last):
  File "C:\Users\Paperspace\Documents\GitHub\mturk-experiment\mturksite\mturkapp\tests\test_views_and_models.py", line 273, in test_workersView_APICall
    response = mturk.list_assignments_for_hit(
  File "C:\Users\Paperspace\Documents\GitHub\mturk-experiment\venv\lib\site-packages\botocore\client.py", line 357, in _api_call
    return self._make_api_call(operation_name, kwargs)
  File "C:\Users\Paperspace\Documents\GitHub\mturk-experiment\venv\lib\site-packages\botocore\client.py", line 676, in _make_api_call
    raise error_class(parsed_response, operation_name)
botocore.errorfactory.RequestError: An error occurred (RequestError) when calling the ListAssignmentsForHIT operation: Hit 3Y04AH2FPD7KJWGZX8KAYBXVGXQ8U does not exist. (1618272283633 s)

-----
Ran 2 tests in 1.181s

FAILED (errors=1)
Destroying test database for alias 'default'...
(venv) PS C:\Users\Paperspace\Documents\GitHub\mturk-experiment\mturksite> █
```

Error if testing without an account

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL 1: powershell
(venv) PS C:\Users\saman\Desktop\COMPUT401\MTurk\mturk-experiment\mturk-experiment\mturksite> python manage.py test
Creating test database for alias 'default'...
System check identified no issues (0 silenced).
..
-----
Ran 2 tests in 1.878s

OK
Destroying test database for alias 'default'...
(venv) PS C:\Users\saman\Desktop\COMPUT401\MTurk\mturk-experiment\mturk-experiment\mturksite> █
```

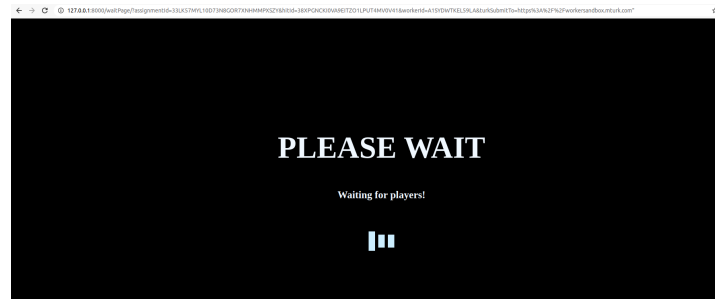
Test works with an account

## Game Manual Test

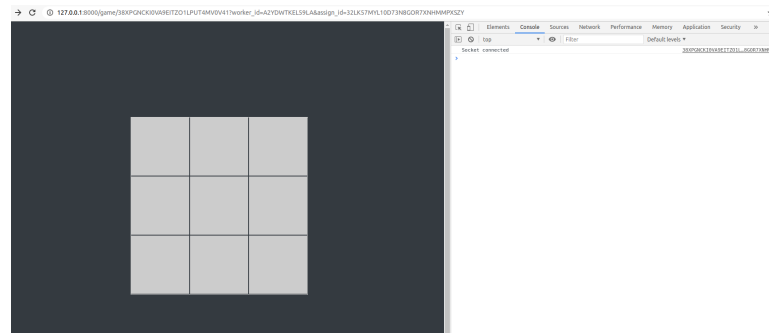
Test #

- **Reference to User Story:**
  - User Story #
- **Step-by-Step Description:**

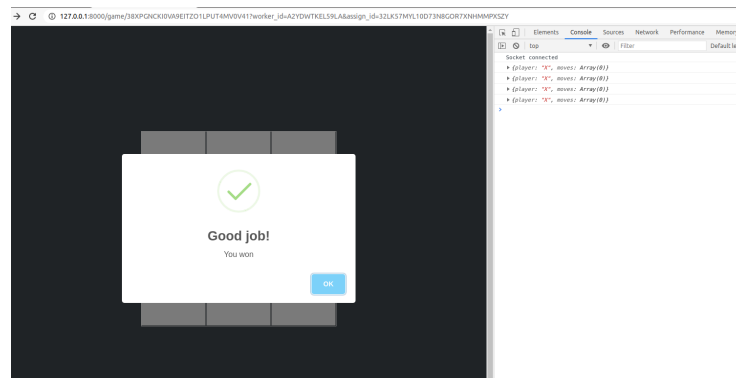
- Run the local server, open two pages with the mock waitPage to test if the game will start automatically when there's two players accept the hit



- 127.0.0.1:8000/waitPage?assignmentId=33LK57MYL10D73N8GOR7XNHMMPXSZY&hitId=38XPGNCKI0VA9EITZO1LPUT4MV0V41&workerId=A1SYDWTKEL59LA&turkSubmitTo=https%3A%2F%2Fworkersandbox.mturk.com"
- 127.0.0.1:8000/waitPage?assignmentId=13LK57MYL10D73N8GOR7XNHMMPXSZY&hitId=38XPGNCKI0VA9EITZO1LPUT4MV0V41&workerId=A2SYDWTKEL59LA&turkSubmitTo=https%3A%2F%2Fworkersandbox.mturk.com"
- The assignmentId and workerId has to be different
- Check the console log and when there's a message "socket connected", that means the game start properly



- Play and finish the game to check if there's a proper popup message



- **Reason for manual test:**
  - The asynchronous game uses channels and needs players to connect using socket, so it is not possible to test the game with normal method.

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## ***User Stories Not Tested***

- **User Story # MH10**
  - **Reason:** We implemented the functionality but it was tough for a limited number of people to do the testing for it. We tested frontend and backend for each page and API calls wherever there is one (major API calls both for frontend and backend)
- **User Story # SH4**
  - **Reason:** We did add Experiment filter to our application and we did not test because it was not on the must test list and we were on a time crunch
- **User Story # SH5**
  - **Reason:** The search filter functionality did not require testing
- **User Story # CH1**
  - **Reason:** We did add messages that shows system error if an error occurs as well as error handling for experiment filter and API calls as well
- **User Story # CH2**
  - **Reason:** Our app is based on API call and the name for things needed to make the API calls are easy to understand and we provided small introduction on the home page or the Overview page
- **User Story # WL1**
  - **Reason:** The bonus was only paid when the requirements are satisfied, which made it difficult to test

## **User Stories Not Developed:**

- **User Story # MH8**
  - **Reason:** We couldn't implement the assign qualification to the worker feature but did create a views.py function for future development.
- **User Story # MH9**



- **Reason:** We couldn't implement the assign qualification to the worker feature but did create a views.py function for future development.
- **User Story # SH2**
  - **Reason:** We created a lobby for Turkers (workers) automatically so the administrator will not need to make a lobby every time when someone accepts a HIT.