

---

**VOTAFUN**

**TEST CASES AND REQUIREMENTS TEST  
COVERAGE REPORT**

---

Version 1.1  
01/11/2023

---

## REVISION HISTORY

Version #	Implemented By	Revision Date	Approved By	Approval Date	Reason
1.0	Ng Yue Jie Alphaeus	26/10/2023	Ng Yue Jie Alphaeus	26/10/2023	Initial test cases and requirements test coverage report draft
1.1	Roy Lau Run-Xuan	26/10/2023	Ng Yue Jie Alphaeus	01/11/2023	Addition of relevant sections

---

# TABLE OF CONTENTS

<b>1 Introduction</b>	<b>4</b>
<b>2 Test Cases</b>	<b>4</b>
TC-01	4
TC-02	4
TC-03	6
TC-04	8
TC-05	8
TC-06	10
<b>3 Test Coverage Report</b>	<b>11</b>
3.1 Frontend test coverage report	11
3.2 Backend test coverage report	12

# 1 Introduction

This document outlines the test cases used to test VotaFun. In this document, we list the test cases used to test VotaFun, the execution steps, as well as the results of the testing.

We also include the test coverage, a metric that measures the extent to which the QA team has tested the source code. More specifically, we are using statement coverage as our metric. Statement coverage looks at the percentage of individual statements executed during testing.

## 2 Test Cases

### TC-01

Test Case ID	TC-01	Designed by	QA Manager
Test Priority	High	Designed date	15 November 2023
Test title	Vote Options	Executed by	QA Engineer
System	VotaFun	Execution date	25 November 2023
Description	Users must be able to vote for an option at each round. After the user has voted, all the options will be disabled.		
Pre-conditions	The room host has set the room location and activity and launched the room by clicking the "Start Room" button. VotaFun has rendered the first question and the options on the screen.		
Dependencies	TC-02, TC-05		

Step	Test Step	Test Data	Expected Result	Actual Result	Status (Fail/Pass)
1	Click on the first option (top left).	N/A	All options should be disabled and unclickable.	All options are disabled and unclickable.	Pass

Post Condition	The user has voted for an option. The buttons are disabled, and the database stores the vote.
----------------	---

### TC-02

Test Case ID	TC-02	Designed by	QA Manager
Test Priority	High	Designed date	15 November 2023
Test title	Room creation	Executed by	QA Engineer

**VotaFun**

System	VotaFun	Execution date	25 November 2023
Description	The room host must be able to create a room for other users to join. The application will present the room host with a shareable link for other users to join.		
Pre-conditions	N/A		
Dependencies	N/A		

Step	Test Step	Test Data	Expected Result	Actual Result	Status (Fail/Pass)
1	Go to the VotaFun application page using the browser.	N/A	The user should see the home page.	The user sees the home page.	Pass
2	Click on the "Create Room" button.	N/A	The user should see the join page to enter their username.	The user sees the join page where they can enter their username	Pass
3	Provide a username	Username: Lloyd	The user should see his input in the username field.	The username field displays "Lloyd"	Pass
4	Click on the "Join" button	N/A	<p>The user will be directed to the lobby page.</p> <p>He should also see his username on the right of the screen, with a crown symbol beside his username.</p> <p>The user should also see two dropdown lists to set the</p>	<p>The user sees the lobby page.</p> <p>Under the participants list on the right, the username "Lloyd" is displayed, with a crown symbol on the left.</p> <p>The user is shown two dropdown lists ("Select</p>	Pass

			<p>room location and room activity, a button to start the room, and a field to set the maximum capacity of the room.</p> <p>Clicking the "Room ID" field copies the URL to join the room.</p>	<p>Location" and "Select Activity") to set the room location and room activity, a button ("Start Room") to start the room, and a field to set the maximum capacity of the room.</p> <p>Clicking the "Room ID" field copies the URL to join the room.</p>	
--	--	--	---	--	--

Post Condition	The user has created a new room, and he will be the room host. A crown symbol is shown on the left of the room host's username to denote that he is the room host.
----------------	--

### TC-03

Test Case ID	TC-03	Designed by	QA Manager
Test Priority	High	Designed date	15 November 2023
Test title	Join room	Executed by	QA Engineer
System	VotaFun	Execution date	25 November 2023
Description	Users must be able to join a room using the URL from the room host.		
Pre-conditions	The room host has created a room. The current number of users in the room is less than the maximum capacity. The room host did not start the room.		
Dependencies	TC-02		

Step	Test Step	Test Data	Expected	Actual	Status (Fail/
------	-----------	-----------	----------	--------	---------------

			Result	Result	Pass)
1	Click on the field beside "Room ID" to copy the URL for other participants.	N/A	The URL to join the room will be copied to the clipboard.	The URL to join the room is copied to the clipboard.	Pass
2	Join the room by entering the URL on another browser tab.	N/A	The user should see the join page to enter their username.	The user is shown the join page where they can enter their username.	Pass
3	Provide a username	Username: Charles	The user should see his input in the username field.	The username field displays "Charles".	Pass
4	Click on the "Join" button	N/A	<p>The user should be directed to the lobby page, and will see his username on the right of the screen, below the room host.</p> <p>There will be 2 participants on the lobby page.</p> <p>Also, the "Location" and "Activity" field is set to "thinking..."</p>	<p>The user is shown the lobby page.</p> <p>Under the participants list on the right, the username "Charles" appears below "Lloyd".</p> <p>The "Location" and "Activity" field is to "thinking..."</p>	Pass

Post Condition	Two users have joined the room. "Lloyd" is the room host, denoted with a crown symbol to the left of his username, while "Charles" will not have this symbol.
----------------	---

**TC-04**

Test Case ID	TC-04	Designed by	QA Manager
Test Priority	Medium	Designed date	15 November 2023
Test title	Kick users	Executed by	QA Engineer
System	VotaFun	Execution date	25 November 2023
Description	The room host must be able to kick users from the game lobby. The kicked user will return to the home page.		
Pre-conditions	The room host has created a room. There are at least 2 participants ("Lloyd" and "Charles") on the lobby page. Lloyd will be the room host.		
Dependencies	TC-02, TC-03		

Step	Test Step	Test Data	Expected Result	Actual Result	Status (Fail/Pass)
1	Using the browser tab with Lloyd as the user, click the red button to the right of Charles.	N/A	Charles is removed from the list of participants on the right.  Charles will be shown a button to return to the home page.	Charles is removed from the list of participants in the room lobby.  Charles is shown a page which says "You are not in a room!" and a button "Return to Home"	Pass
2	Click on the "Return to Home" button	N/A	The user should see the home page.	The user is shown the home page.	Pass

Post Condition	The room host will be the only participant in the room lobby. The kicked user will return to the home page.
----------------	---

**TC-05**



**VotaFun**

Test Case ID	TC-05	Designed by	QA Manager
Test Priority	High	Designed date	15 November 2023
Test title	Set room properties	Executed by	QA Engineer
System	VotaFun	Execution date	25 November 2023
Description	The room host must be able to set different room properties such as the room location, room activity and the maximum capacity of the room. Other participants are notified of the change in room location and room activity.		
Pre-conditions	The room host has created a room. There are at least 2 participants ("Lloyd" and "Charles") on the lobby page. Lloyd will be the room host.		
Dependencies	TC-02, TC-03		

Step	Test Step	Test Data	Expected Result	Actual Result	Status (Fail/Pass)
1	Using the browser tab with Lloyd as the user, click on the "Select Location" dropdown list and choose "East".	N/A	Both users (Lloyd and Charles) will see "East" selected for the room location.	Lloyd sees that "East" is selected for the room location.  Charles sees the room activity change from "thinking..." to "East".	Pass
2	Using the browser tab with Lloyd as the user, click on the "Select Activity" dropdown list and choose "Food".	N/A	Both users (Lloyd and Charles) will see "Food" selected for the room activity.	Lloyd sees that "Food" is selected for the room activity.  Charles sees the room activity change from "thinking..." to "Food".	Pass
3	Using the browser tab with	Max Users: 50	The "Max Users" field	The "Max Users" field	Pass

**VotaFun**

	Lloyd as the user, provide an integer to the "Max Users" field.		will be updated to 50.	has changed from 10 to 50.	
--	---	--	------------------------	----------------------------	--

Post Condition	The room location, room activity and maximum capacity of the room are set by the room host (Lloyd). Other participants (Charles) will see the room location and room activity become "East" and "Food".
----------------	---

**TC-06**

Test Case ID	TC-06	Designed by	QA Manager
Test Priority	High	Designed date	15 November 2023
Test title	Game round	Executed by	QA Engineer
System	VotaFun	Execution date	25 November 2023
Description	VotaFun will present users with a question and at least two options for the first five rounds. VotaFun will present users with four activities for the last round and the final activity with the most votes. The game must end within six rounds.		
Pre-conditions	The room host has created a room. The room host must set the room location and room activity and click on "Start Room" to start the room.		
Dependencies	TC-02, TC-03, TC-05		

Step	Test Step	Test Data	Expected Result	Actual Result	Status (Fail/Pass)
1	Click on any of the options to vote for it.	N/A	All options should be disabled and unclickable.	All options are disabled and unclickable.	Pass
2	Wait for 15 seconds until the current round ends and the next question is rendered.	N/A	The user will be shown a loading screen as the next question is generated.	The user sees a loading screen while the next question and options are generated.	Pass

3	Repeat steps 1 and 2 for questions 2 to 5.	N/A	The expected results should be the same as steps 1 and 2.	The actual results of steps 1 and 2 will be the same as step 1 and 2.	Pass
4.	For both users in the room, click on the first activity to vote for it.	N/A	All other activity options should be disabled and unclickable.	All other activity options are disabled and unclickable.	Pass
5	Wait for 15 seconds until the current round ends and the chosen activity is rendered on the screen.	N/A	The user will be shown the result page with the chosen activity and the exact location of the activity.  The user will also be shown a button "Leave Room".	The user sees the result page with the chosen activity and the exact location of the activity.  The user also sees a "Leave Room" button.	Pass

Post Condition	VotaFun will show the users the final activity chosen and the exact location of the activity.
----------------	---

### 3 Test Coverage Report

#### 3.1 Frontend test coverage report

The following image shows the test coverage report for VotaFun's frontend component. The test coverage report primarily shows the frontend unit testing result. Notably, the QA team has covered 51.53% of statements in the frontend unit tests.

## All files

51.53% Statements 84/163 24.24% Branches 8/33 35.59% Functions 31/59 58.2% Lines 78/134Press *n* or *j* to go to the next uncovered block, *b*, *p* or *k* for the previous block.Filter: 

File	Statements	Branches	Functions	Lines
app	93.75%	15/16	100%	0/0
components	100%	6/6	100%	2/2
components/common	82.14%	23/28	75%	3/4
components/dom	100%	1/1	100%	0/0
components/layout	100%	3/3	100%	0/0
stores	31.77%	34/107	4%	1/25
types	100%	2/2	100%	2/2

## 3.2 Backend test coverage report

The following image shows the test coverage report for VotaFun's backend component. The test coverage report primarily shows the backend unit testing results for the database and LLM and integration testing results for sockets. Notably, the QA team has covered 83% of statements in the backend tests.

Coverage report: 83%				
coverage.py v7.3.2, created at 2023-10-30 18:20 +0800				
Module	statements	missing	excluded	coverage
src/__init__.py	21	0	0	100%
src/app.py	4	1	0	75%
src/config.py	16	0	0	100%
src/database/Database.py	133	17	0	87%
src/database/Option.py	22	1	0	95%
src/database/Question.py	31	2	0	94%
src/database/Room.py	95	13	0	86%
src/database/User.py	20	2	0	90%
src/database/__init__.py	6	0	0	100%
src/decorators/__init__.py	2	0	0	100%
src/decorators/redis_pipeline.py	17	2	0	88%
src/logger.py	7	0	0	100%
src/sockets/RoomManagement.py	249	63	0	75%
src/utils/LLM.py	88	18	0	80%
src/utils/__init__.py	0	0	0	100%
<b>Total</b>	<b>711</b>	<b>119</b>	<b>0</b>	<b>83%</b>
coverage.py v7.3.2, created at 2023-10-30 18:20 +0800				