# Test Plan

**for**

# Brew Day!

**Version 1.0 approved**

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## Contents



# Revision History

| Name | Date | Reason For Changes | Version |
|---|---|---|---|
| Zhenghao Wu, Anqin Zha, Renjie Deng and Ruichao Zhong | 2019-05-12 | The First Version of test plan | 1.0 |
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# 1. Objectives

## 1.1 Modules under test

The module under test is recommend recipe of the program “Brew Day!”

## 1.2 References

Z. H. Wu, et al., “Software Requirements Specification for Brew Day! Version 5.0” Apr. 2nd, 2019.

# 2. Testing levels and methods

## 2.1 Testing levels

This test is system testing for the sub system “recommend recipes” of the program “Brew Day!”

## 2.2 Testing methods

The testing methods will be black-box testing, testers will adapt equivalence class testing to test the system.

# 3. Test cases

All testing cases are running on the pre prepared the database file call “brewday.db”, it include 11 different ingredients and 4 recipe which using 1 to 7 different numbers of ingredients. About the capacity of different ingredients (storage ingredient) will be specified below:

## 3.1 Database configuration 1:

In this testing case, there is no recipe in the database.

| *Test ID* | *Test case description* | *Expected result* |
|---|---|---|
| 1 | Click the “recommend” button, there is no recipe in the database. | Cannot start “recommend recipe” function. |

## 3.2 Database configuration 2:

In these testing case, there is at least one recipe in the database, and the ingredients in the database is enough.

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| 2 | Click the “recommend” button, there is at least | Successfully brew according to |

| | | |
|---|---|---|
| | one recipe in the database and the ingredient is enough, the batch size is larger than 0 and less than volume of equipment, then select the recipe 1 and click “Brew” button. | the recipe 1 and generate a brew record in the database. |
| 3 | Click the “recommend” button, there is at least one recipe in the database and the ingredient is enough, the batch size is less or equal than 0, then select the recipe 1 and click “Brew” button. | The system will pop out an error window. |
| 4 | Click the “recommend” button, there is at least one recipe in the database and the ingredient is enough, the batch size is larger than the volume of equipment, then select the recipe 1 and click “Brew” button. | The system will pop out a warning to tell user to modify the batch size. |
| 5 | Click the “recommend” button, there is at least one recipe in the database and the ingredient is enough, the batch size is larger than 0 and less than volume of equipment, then select the recipe 2 and click “Brew” button. | Successfully brew according to the recipe 2 and generate a brew record in the database. |
| 6 | Click the “recommend” button, there is at least one recipe in the database and the ingredient is enough, the batch size is less or equal than 0, then select the recipe 2 and click “Brew” button. | The system will pop out an error window. |
| 7 | Click the “recommend” button, there is at least one recipe in the database and the ingredient is enough, the batch size is larger than the volume of equipment, then select the recipe 2 and click “Brew” button. | The system will pop out a warning to tell user to modify the batch size. |
| 8 | Click the “recommend” button, there is at least one recipe in the database and the ingredient is enough, the batch size is larger than 0 and less than volume of equipment, click “Brew” button without a selection. | The system will pop out a warning to tell user to select a recipe. |

## 3.3 Database configuration 3:

In this testing case, there is at least one recipe in the database, but the amount of ingredients in the database is not enough for brewing.

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| 9 | Click the “recommend” button, there is at least one recipe in the database but the ingredient is not enough, the batch size is larger than 0 and less than volume of equipment, then select the recipe 1 and click “Brew” button. | The system will generate a shopping list for missing ingredients of recipe 1. |
| 9 | Click the “recommend” button, there is at least one recipe in the database but the ingredient is not enough, the batch size is less or equal to 0, then select the recipe 1 and click “Brew” button. | The system will pop out an error window. |
| 10 | Click the “recommend” button, there is at least one recipe in the database but the ingredient is not enough, the batch size is larger than the | The system will pop out a warning to tell user to modify the batch size. |

| | | |
|---|---|---|
| | volume of equipment, then select the recipe 1 and click “Brew” button. | |
| 11 | Click the “recommend” button, there is at least one recipe in the database but the ingredient is not enough, the batch size is larger than 0 and less than volume of equipment, then select the recipe 2 and click “Brew” button. | The system will generate a shopping list for missing ingredients of recipe 2. |
| 12 | Click the “recommend” button, there is at least one recipe in the database but the ingredient is not enough, the batch size is less or equal to 0, then select the recipe 2 and click “Brew” button. | The system will pop out an error window. |
| 13 | Click the “recommend” button, there is at least one recipe in the database but the ingredient is not enough, the batch size is larger than the volume of equipment, then select the recipe 2 and click “Brew” button. | The system will pop out a warning to tell user to modify the batch size. |