

# Theater Ticketing System

## Verification Test Plan

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Group 2

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## Revision History

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10/19/23	Version 1.0	Group 2	First Draft

## Document Approval

The following Software Requirements Specification has been accepted and approved by the following:

Signature	Printed Name	Title	Date
	Afnan Algharbi	Software Engineer	10/19/23
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# 1. Verification Test Plan

The following module expands more on the plans for verification. It discusses and elaborates in detail the varying types of tests implemented such as Unit, Integration, and system tests and how they target the main features of the ticketing system.

## 1.1 Unit Tests

After each component is designed, all units shall be subjected to rigorous testing to make sure every variable and statement is accessed properly. To ensure things are thoroughly tested, unit tests will be built and both the development and the QA team will be actively involved in ensuring thorough testing.

Each unit test will focus on one specific class, method, or module within our program. Tests may be accessed through direct method calls, or by interacting with the frontend environment. Some examples of unit tests are laid out below:

- Verify that a user can only access employee features if employee credentials are provided, rather than standard customer credentials
- Verify that calls to the Shopping Cart API are structured accurately, and that a customer's private information can only be accessed by authorized devices.
- Verify that a customer can purchase no more than 10 tickets for any given showtime.
- Verify that tickets "reserved" by a customer will expire (become available to other customers) within five minutes of selecting them.

## 1.2 Integration Tests

After each module has been thoroughly tested individually, it will be tested in combination with other modules to ensure the successful integration of each portion of the system. Some examples of integration tests are laid out below:

- Verify functionality of accessibility features in embedded movie trailer videos;
- Verify that customers are able to search for nearby theaters and movie showings;
- Verify that customers are able to purchase and use gift cards;
- Verify that a user's shopping cart accurately reflects the contents added to it.

### 1.3 System Tests

In order to ensure the cohesive operation of our system's various components, it is necessary to test the entire system from the perspective of its end users. For this program, both customers and employees are included, and each has their own distinct operations at their disposal.

We will test our system through two full-system tests from an online customer's perspective, and one from a theater employee's perspective.

- For the customer trials, nearly every function will be attempted, including:
  - signing up for an account / signing into an existing account
  - purchasing gift cards
  - purchasing a membership subscription
  - purchasing tickets, and
  - receiving refunds for tickets.
- For the employee trials, each of the limited options available will be tested.
  - Employees will be able to handle on-site purchases made with cash or credit cards, to buy specific tickets as desired by the customer.
  - Theater managers and other higher-end employees will have access to inventory checking and other management solutions, so pipelines leading to those will also be tested.

In all cases, each step will be precisely documented to ensure that the end result matches the expected outcome.