

## **I. Description of Overall Test Plan**

To ensure that our web application works as expected we will incorporate different types of tests. First, we will individually test the different components of the application with expected inputs and exceptional inputs to analyze how the application works in different scenarios. Next, we will employ blackbox testing, evaluating the external components (inputs/ outputs) compared to the requirements specification to ensure the application behaves as expected. We will also perform functional testing on the application to ensure each feature is validated against the functional requirements. For the last phase of testing, we will test the application in a production environment and ensure it is able to handle such.

## **II. Test Case Descriptions**

### **Test Case 1: Search by Category**

Purpose: To verify that users can successfully search for different categories of places.

Description: Perform a search for restaurants in Cincinnati.

Inputs: Category: Restaurants

Expected Outputs/Results: Display a list of restaurants in Cincinnati.

Test: Blackbox / Functional Test

### **Test Case 2: Filter by Rating**

Purpose: To confirm that users can filter places based on average rating.

Description: Filter places based on a minimum rating of 4.

Inputs: Minimum Rating: 4

Expected Outputs/Results: Display a list of places with ratings equal to or higher than 4.

Test: Blackbox / Functional Test

### **Test Case 3: Filter by Price**

Purpose: To ensure users can filter places based on price.

Description: Filter places based on the lowest to highest price.

Inputs: Filter by Price: Lowest to Highest

Expected Outputs/Results: Display a list of places sorted by price from lowest to highest.

Test: Blackbox / Functional Test

### **Test Case 7: Mobile Responsiveness**

Purpose: To ensure the application is responsive on different devices.

Description: Access the application from a mobile device.

Inputs: Use a mobile device to access the application.

Expected Outputs/Results: The application interface adjusts correctly for mobile viewing.

Test: Blackbox / Functional Test

### **Test Case 8: Integration with External APIs**

Purpose: To verify integration with external APIs.

Description: Retrieve place data, additional information, reviews, and images from Yelp API.

Inputs: API request for place data.

Expected Outputs/Results: Successful retrieval of place information from Yelp API.

Test: Blackbox / Functional / Performance / Integration Test

### III. Test Case Matrix

	<b>Normal/ Abnormal</b>	<b>Blackbox/ Whitebox</b>	<b>Functional/ Performance</b>	<b>Unit/ Integration</b>
Test case 1	Normal	Blackbox	Function	Unit
Test case 2	Normal	Blackbox	Function	Unit
Test case 3	Normal	Blackbox	Function	Unit
Test case 4	Normal	Blackbox	Function	Unit
Test case 5	Normal	Blackbox	Function	Unit
Test case 6	Normal	Blackbox	Function	Unit
Test case 7	Normal	Blackbox	Function	Unit
Test case 8	Normal	Blackbox	Function	Unit