EATSY APP Testing

7.1 Unit Testing

In unit testing, various modules have been tested individually. This has been done manually to test if the expected result is actually seen on the screen. The following are test cases with the help of which the application has been tested.

Sr. No	Test Case Description	Expected Result	Actual Result
1	On load of home screen	Show Top 5 restaurants in the current city	Pass
2	On clicking search image button without any user input	Display an alert box prompting the user about an invalid input	Pass
3	On clicking search image button with user input	Display a list of restaurants present in the specified location and that match the keyword.	Pass
4	On Clicking search button without any user input	Display an alert box prompting the user to either choose the current location or enter an address	Pass
5	On Clicking search button	Display a list of restaurants	Pass

	with complete user input	according to the requested category, rating and distance range	
6	On Clicking a particular restaurant in the list	Display a screen showing the details of the selected restaurant	Pass
7	On Clicking the submit button on Write a Review page	Update the rating and number of reviews in the database	Pass
8	On Clicking “Show Reviews” button on Restaurant Details page	Display a list of all the reviews written by users about the selected restaurant	Pass
9	On Clicking “Show Route” button on Restaurant Details screen	Show the route to the selected restaurant from the specified source address	Pass

10	On Clicking Invite button on Restaurant Details screen without logging in.	Navigate to the login screen.	Pass
11	On Clicking "Invite" button on Restaurant Details Screen after logging in	Show a screen where the user can send invitations to multiple users.	Pass
12	On Clicking "See Invitations" button on Restaurant Details Screen without logging in.	Navigate to the login screen.	Pass
13	On Clicking "See Invitations" button on Restaurant Details Screen after logging in.	Display a list of invitations that the logged user received.	Pass

14	On Clicking an invitation	Display the details of the invitation like the sender name, meeting place, time and the subject.	Pass
15	On Clicking "Mark" button on Invitation Details screen	Open the google calendar with the details populated.	Pass

Table : Test Cases for Unit Testing

Performance Testing

Performance testing has been done to measure the responsiveness of the application to the workload such as increasing users' requests. JMeter was used to create the users and to analyze the performance. The parameters were chosen randomly till the application performed consistently. The test has been done on a home Wi-Fi network with a speed of 5Mbps

System Configuration:

Operating System: Windows 10

Processor: Intel® Core™ i5-2450M CPU @ 2.50GHz

RAM: 6GB

The home page was tested by analyzing the performance of the PHP page which is responsible for returning top 5 restaurants in the current city by tracking the current location of the user through Wi-Fi, Cellular network or GPS. It was really important to have a good response time for this screen as it is the home page.

7.2.1 Home Screen

The graph below explains the characteristics of the PHP page for 500 user requests.

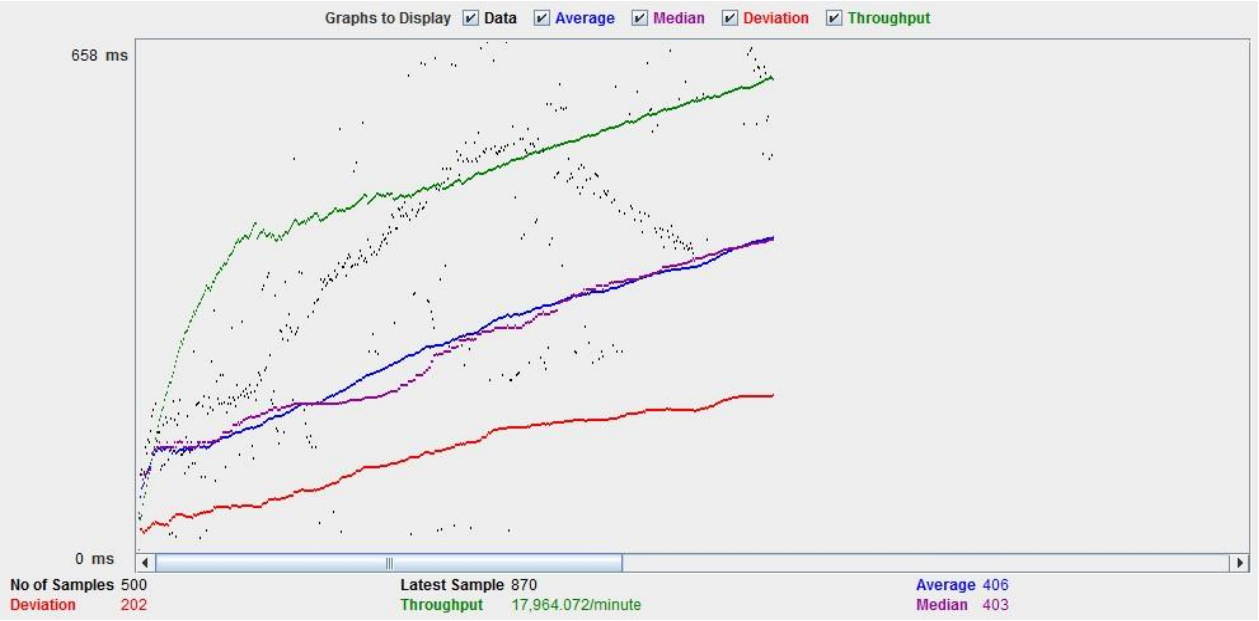

Figure : Performance testing on home screen for 500 users

It is clear from the graph that the application performs consistently for 500 users as it has an average response time of 0.4 sec.

The following are the graphs for 1000 users and 1500 user requests on the home page

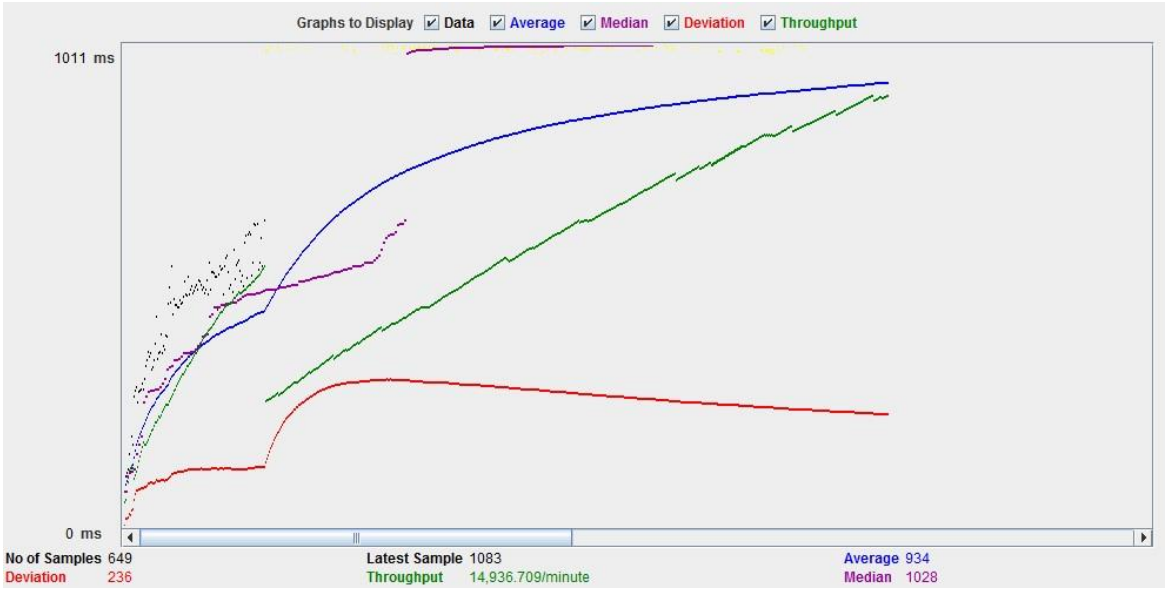

Figure: Performance testing on home screen for 1000 users

Figure: Performance testing on home screen for 2000 users

The application performs consistently for 1000 users as the average response time is 0.9 sec but it might not respond quickly enough for 2000 or more users as the average response time is as high as 1.4 sec.

Search Screen

The graph below explains the characteristics of the PHP page for 500, 1000 and 1500 user requests.

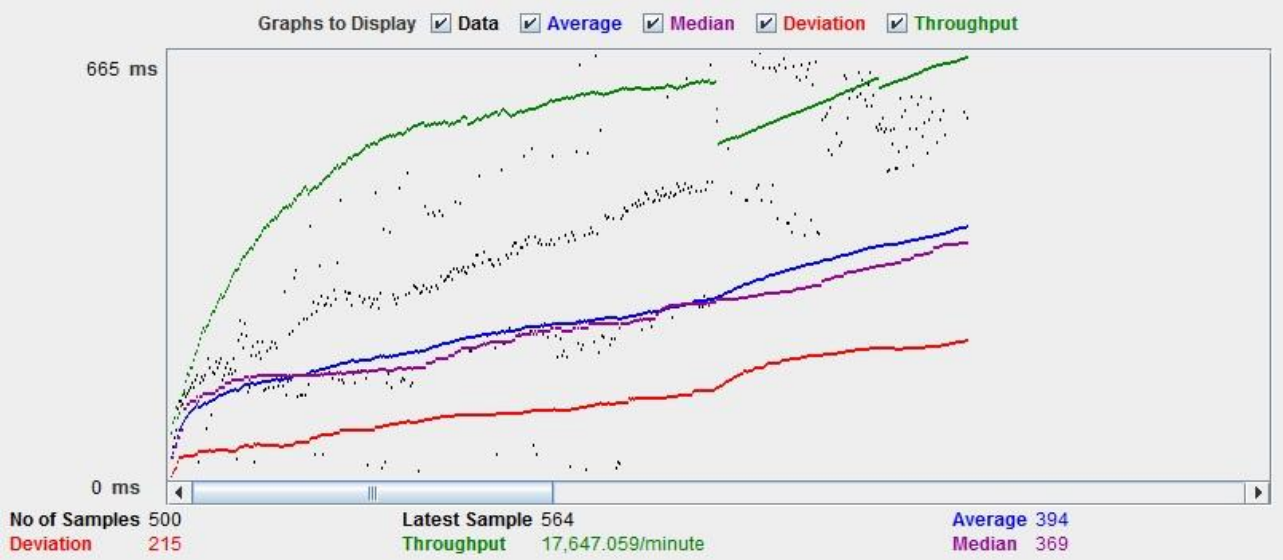

Figure: Performance testing on search screen for 500 users

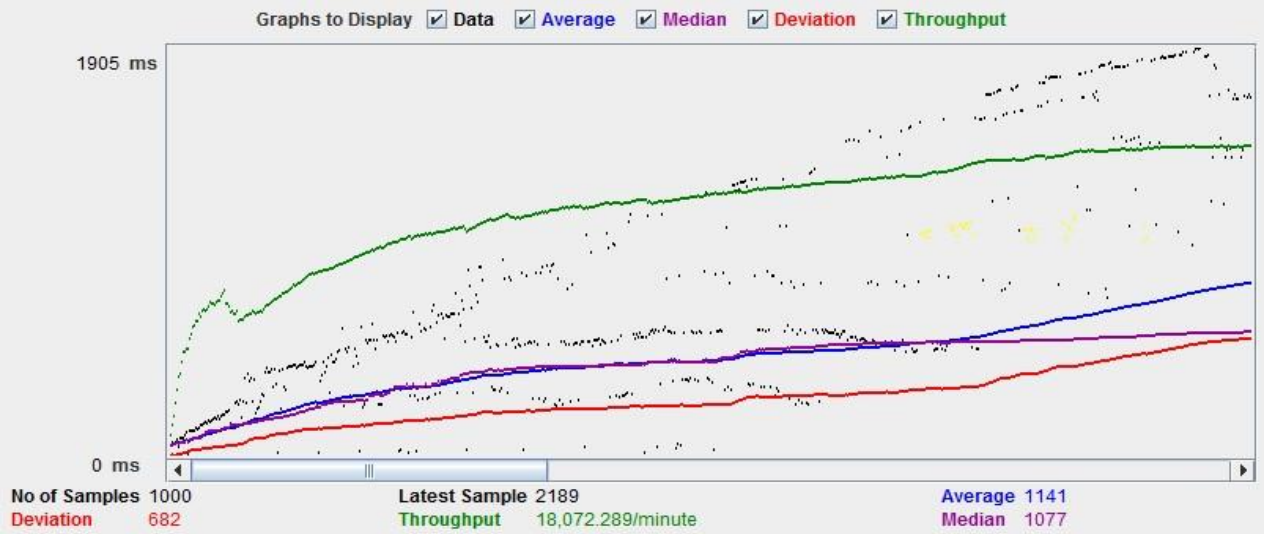

Figure: Performance testing on search screen for 1000 users

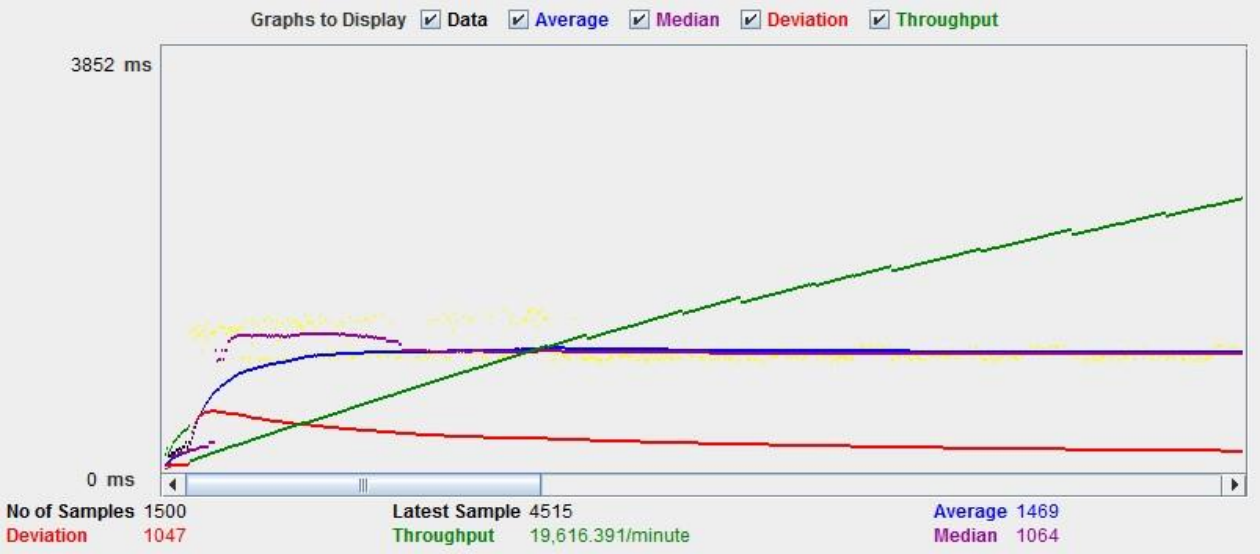

Figure: **Performance testing on search screen for 1500 users**

From the above graphs it can be observed that the applications performs consistently for 1500 user requests with an average response time of 1.4sec and a throughput of almost 20,000 requests per minute.

Compatibility Testing

This application was mainly designed for android phones as it helps the users find the restaurants when they are on the move. Generally they try to carry something handy like cell phones with them and not the tablets. Different android phones have different screen sizes and resolution. The application has been tested for its compatibility with different screen sizes on the emulator.

1 Portrait mode

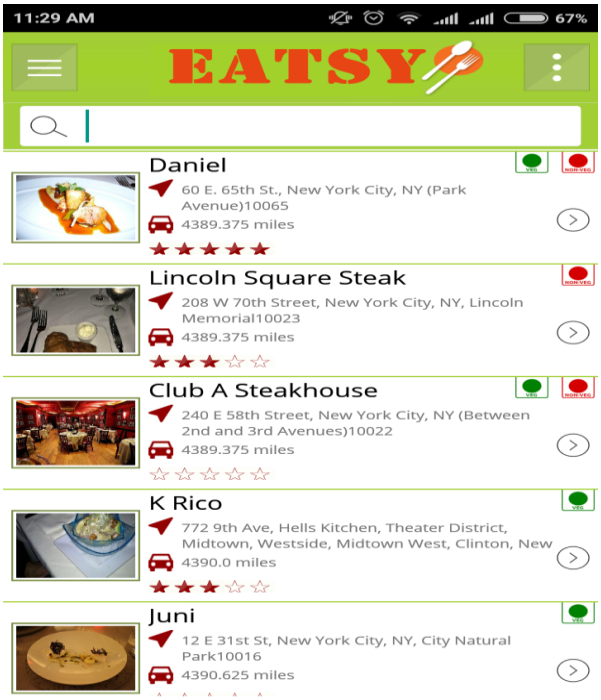

Figure Portrait mode

2 Landscape mode

Figure: Landscape mode