Iteration 3: Addressing Quality Attribute Scenario Driver (QA-3)

In this section, the results of the activities performed in each of the steps in the third iteration of the design process are presented. This iteration is used to build off of the fundamental decisions made in iteration 1 and 2, which leads to an important quality attribute scenario.

Step 2: Establish Iteration Goal By Selecting Drivers

For this iteration, the architect focuses on the QA-3 quality attribute scenario: Send location coordinates but shifts it slightly.

Step 3: Choose One or More Elements of the System to Refine

For this availability scenario, the elements that will be refined are the physical nodes that were identified during the second iteration:

- GeoLocation

Step 4: Choose One or More Design Concepts That Satisfy the Selected Drivers

The design concepts used in this iteration are the following:

Design Decisions and Location	Rationale and Assumptions
Introduce the ability to shift user location based on the graphic data taken from GeoLocation	By refining the element system, can have increased security as the user location direct location will not be revealed to the other users within the chat app.

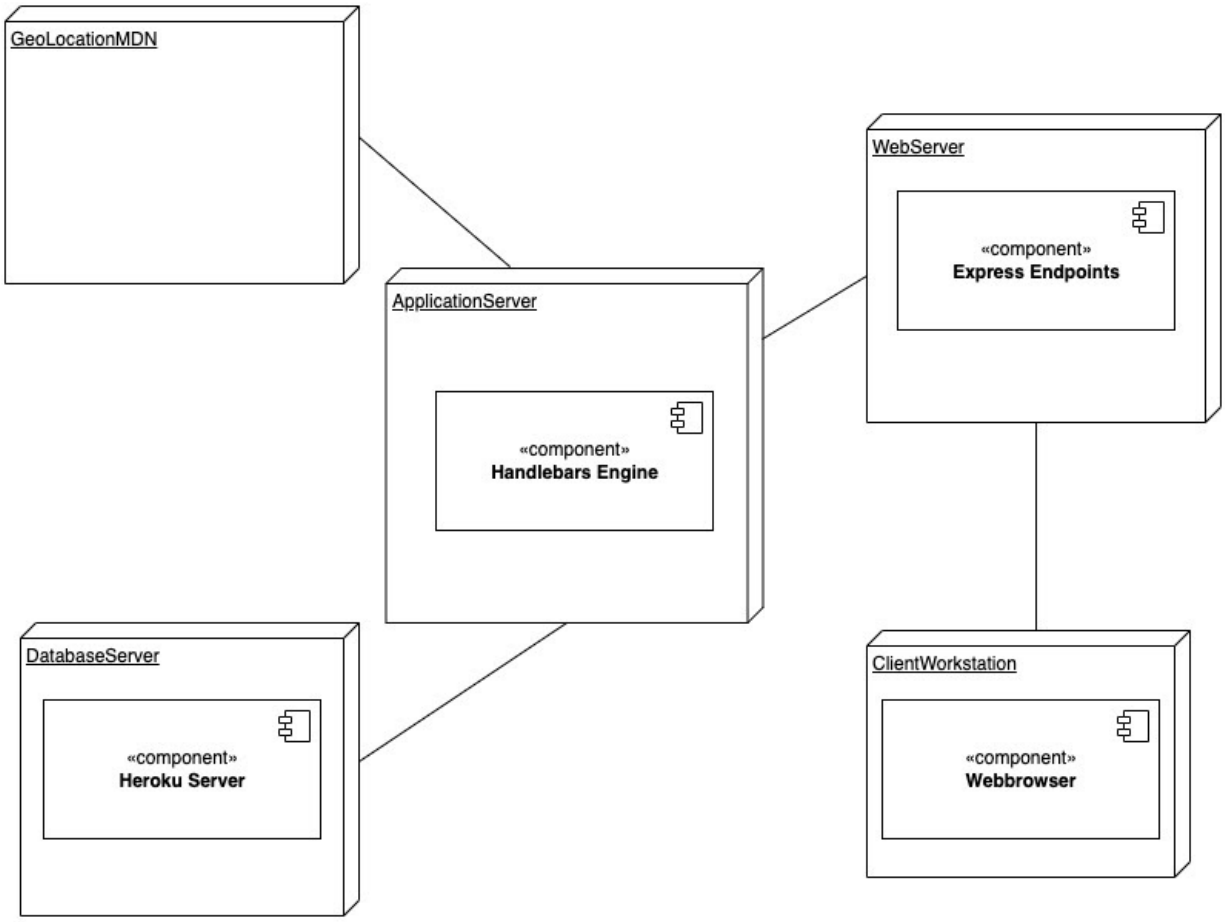
Step 5: Instantiate Architectural Elements, Allocate Responsibilities, and Define Interfaces

The instantiation design decisions are summarized in the following table:

Design Decisions and Location	Rationale
Deploy a method that will shift the location	The user's location will be taken by the user pressing a button. The location will be processed by GeoLocation MDN, and the geographical coordinates will be shifted. The coordinate will be processed through google's map api and print within the chat

Step 6: Sketch Views and Record Design Decisions

Figure 4.10 shows a refined deployment diagram that includes the introduction of redundancy in the system.



Step 7: Perform Analysis of Current Design and Review Iteration Goal and Achievement of Design Purpose

Not Addressed	Partially Addressed	Completely Addressed	Design Decisions Made During this Iteration
	QA-1		No relevant decisions made.
		QA-3	By shifting the location obtained by Geolocation we are able to hide the user's direct location. Thus, giving the user's relative location as opposed to absolute location.
	QA-4		No relevant decisions made.
	QA-5		No relevant decisions made.
	CON-3		No relevant decisions made.
	CON-4		No relevant decisions made.

CON-5	No relevant decisions made.
CRN-2	No relevant decisions made.
CRN-3	No relevant decisions made.
CRN-4	No relevant decisions made.