Metric	Observation
Real-TimeMessaging	Socket.ioenablednear-instantmessagedelivery(<100mslatency)
Memory Usage	Nomemoryleaksorcrashesduringextendedsessions(tested3+hours)

ToolsUsed:

- **Postman**–ForAPItestingandvalidation
- **JMeter/Locust(optional)**–Forsimulatedloadtesting
- **ChromeDevTools**–Formeasuringfrontendloadtimesandresponsiveness
- $\bullet \quad Mongo DB Compass To monitor query performance and database health$