

KotlinResponsiveness

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Contact Info

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Repository: <https://github.com/Schickendantzj/KotlinResponsiveness>

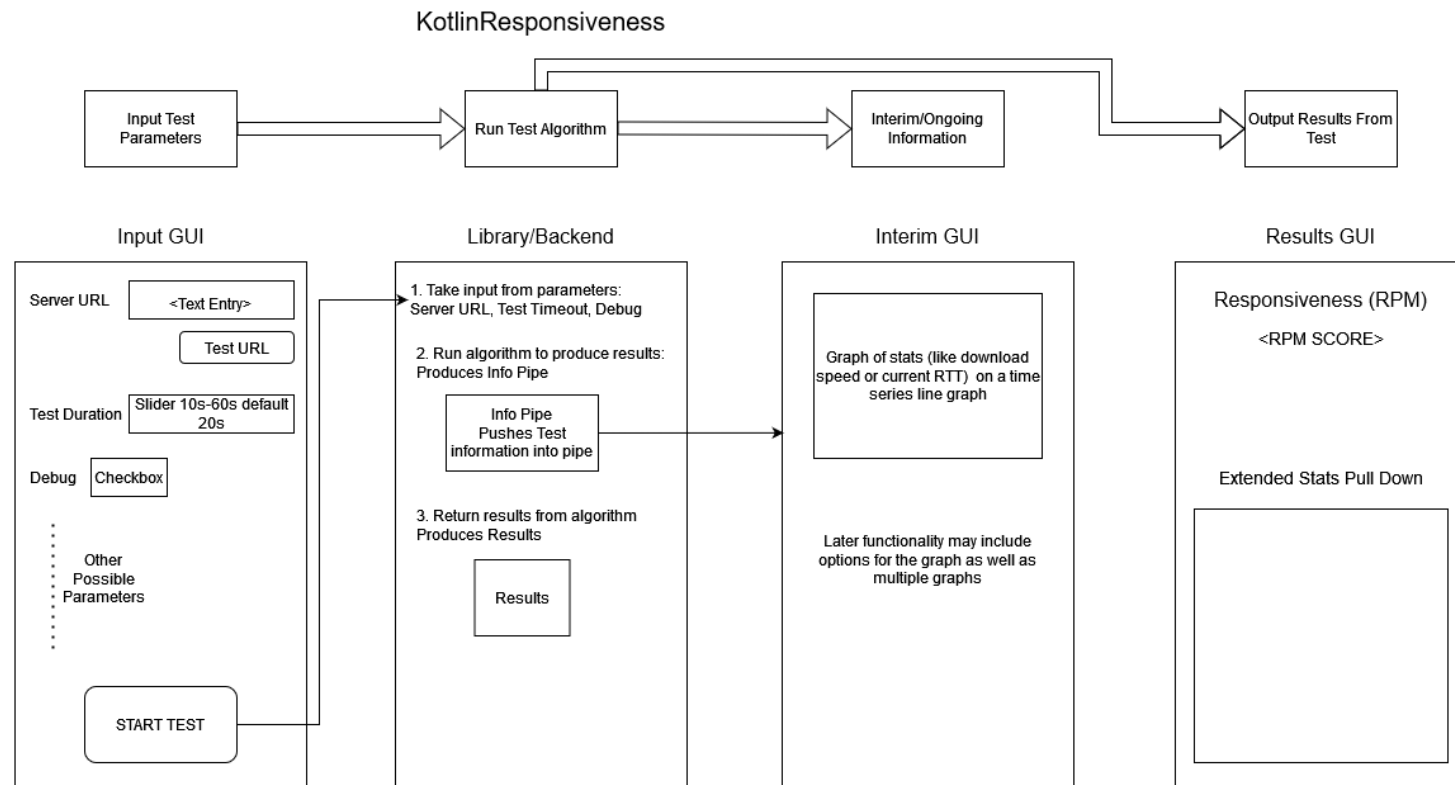
Project Abstract

This project's goal is to make a library framework for the network responsiveness test described in [Responsiveness under Working Conditions](#) IETF draft. Following, to create an Android app that can utilize the library to run the test.

The library will offer an API call to allow applications to integrate the responsiveness test. It will also provide a platform for future development of different implementations of the responsiveness test, allowing a wider range of devices to run it.

The Android app will utilize this API call to give the Android platform access to the responsiveness test.

Design Diagram



Major Project Constraints

- Networking is confusing (Professional)
- Depends on frameworks built by others (Economics)
- Will be an alternative for multiple users (Social)
- Private information transfer, DDOS avoidance (Security)

Current State

- Created project structure
- Experimented with Kotlin networking
- Working throughput capture:

```
Received 24829952 bytes | 23.679688 megabytes in 520416900 ns | 520 ms
Received 33751040 bytes | 32.1875 megabytes in 500297100 ns | 500 ms
Received 29605888 bytes | 28.234375 megabytes in 500164700 ns | 500 ms
Received 34119680 bytes | 32.539062 megabytes in 500672100 ns | 500 ms
Received 36454400 bytes | 34.765625 megabytes in 503841100 ns | 503 ms
Received 32661504 bytes | 31.148438 megabytes in 500107600 ns | 500 ms
Received 34480128 bytes | 32.882812 megabytes in 500186200 ns | 500 ms
Received 29564928 bytes | 28.195312 megabytes in 507537800 ns | 507 ms
Received 31817728 bytes | 30.34375 megabytes in 502214600 ns | 502 ms
Received 28246016 bytes | 26.9375 megabytes in 500055000 ns | 500 ms
Received 35192832 bytes | 33.5625 megabytes in 500153900 ns | 500 ms
```

Expected Accomplishments for the end of this term

- Working responsiveness test functionality
- Partial library implementation
- Partial JVM implementation
- Partial library testing implementation
- Partial GUI/App design

Expected Demo

- Working responsiveness library
- Working app with functional features working
- Partial library testing implementation

Thank you

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