

## ASTA project - Design

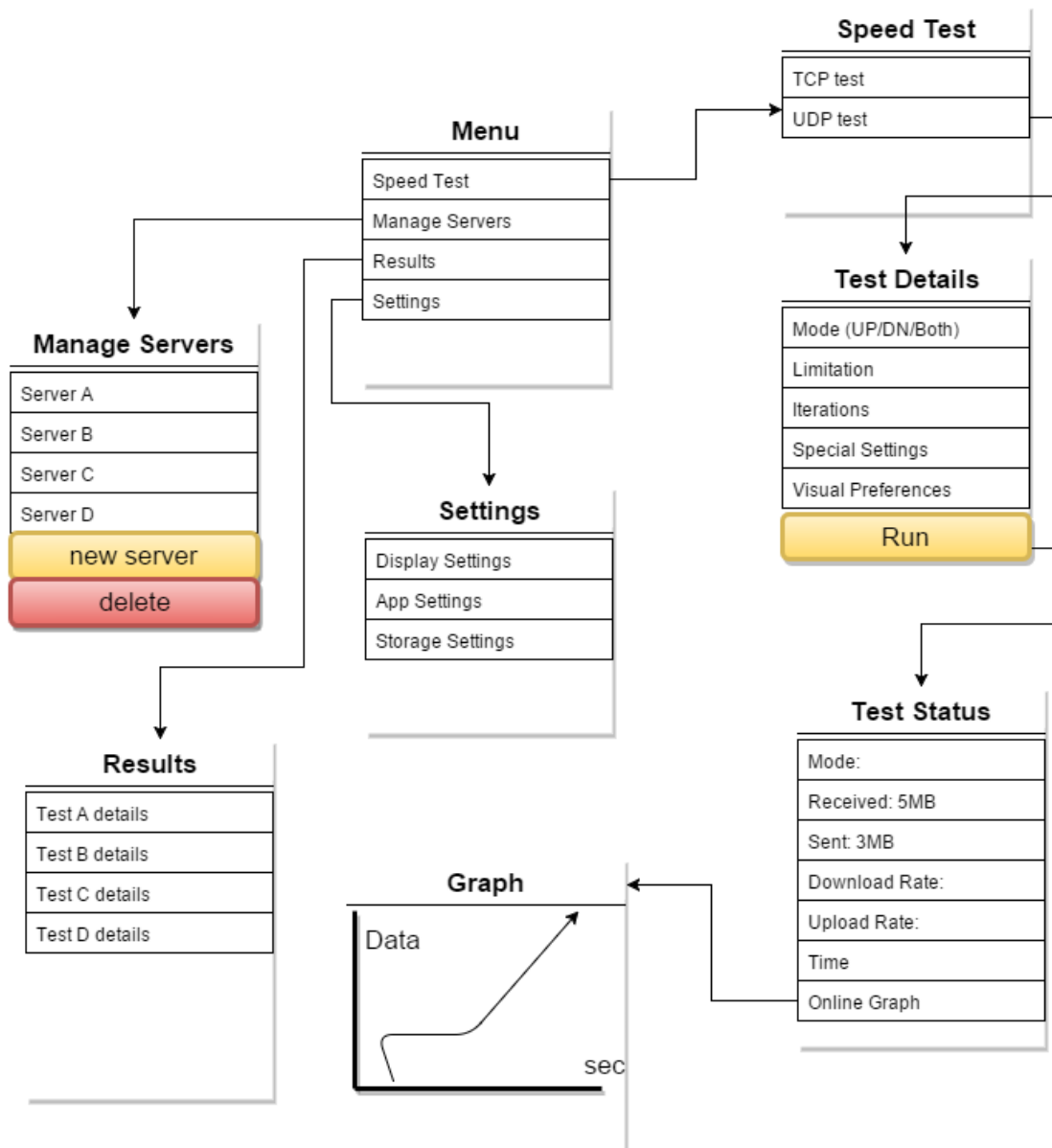
### Application Description:

The advanced speed test application (from now on – ASTA) is a client application that allows the user to test the network connection with advanced options / parameters and retrieve results for later analysis.

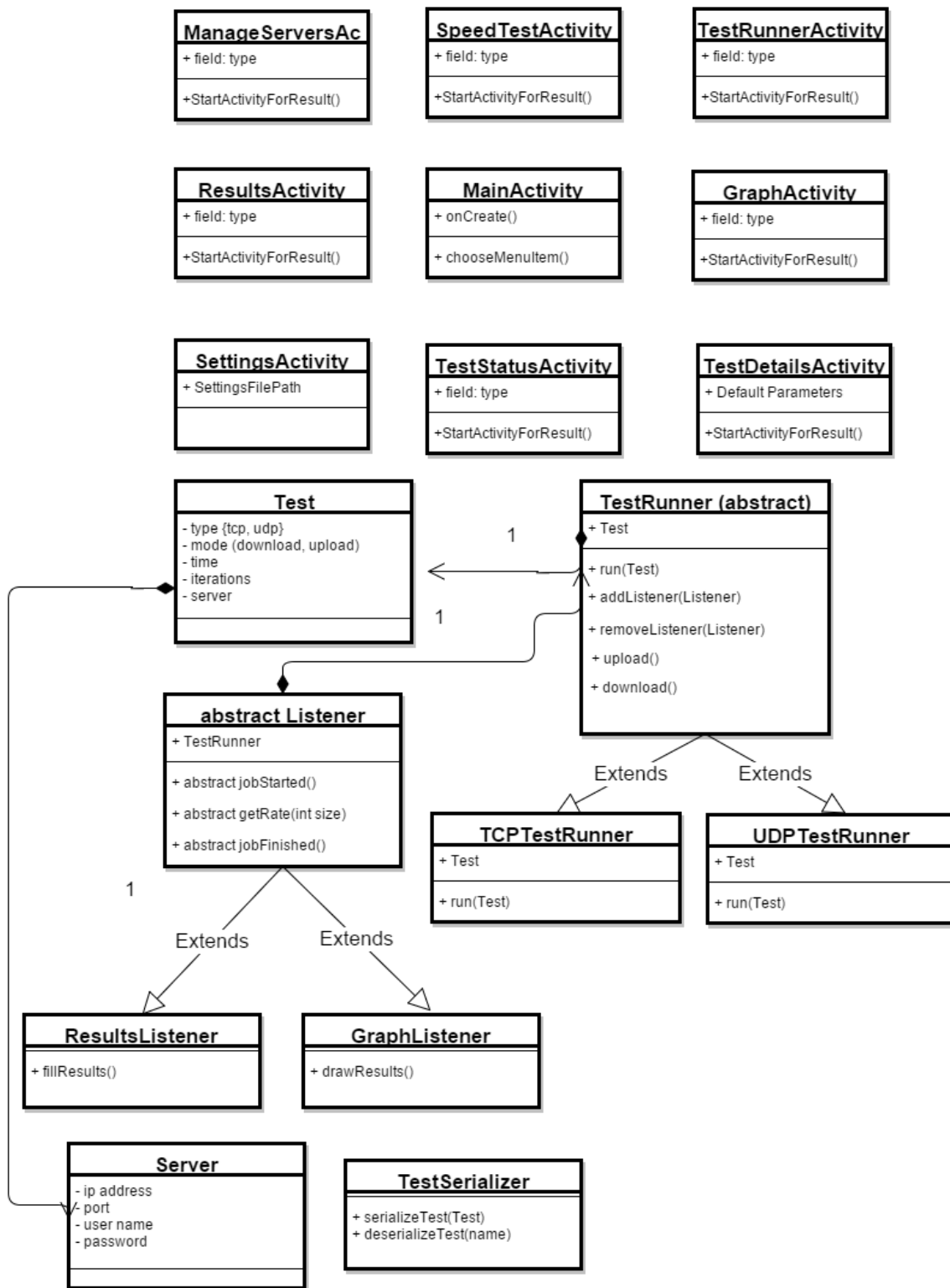
This application is aimed to an experienced users with knowledge on communication protocols.

It will be able to supply special information about the connection and data traffic that is being transferred between the application and the chosen server.

### Application Design & Main screens:



## UML Diagram:



## Additional Details:

### Layout details:

1. Menu screen: application menu.
2. Test details screen: configure parameters and run test.
3. Settings screen: enable / disable special settings.
4. Test status: show current progress and visual graph describes upload and download rate.
5. New server screen: optional screen to add a new server into servers list.
6. Graph screen: shows current rate in graph view
7. Results: shows last results in a list

### Design patterns and concepts:

- In the implementation of the listeners, I will use Observer pattern – the listeners will get notifications from the test runner, and they will update screen in accordance.
- In the implementation of the test runner I will use template method pattern – TCP and UDP test runners will use the basic implementation of Test runner.