



HOMA

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PROBLEM

While TCP has been a long-used transport protocol, it has also been notoriously known to have a flawed design in recent years. This leads to many performance and scalability problems that hinder its use. The slowness does not help others trying to use it.

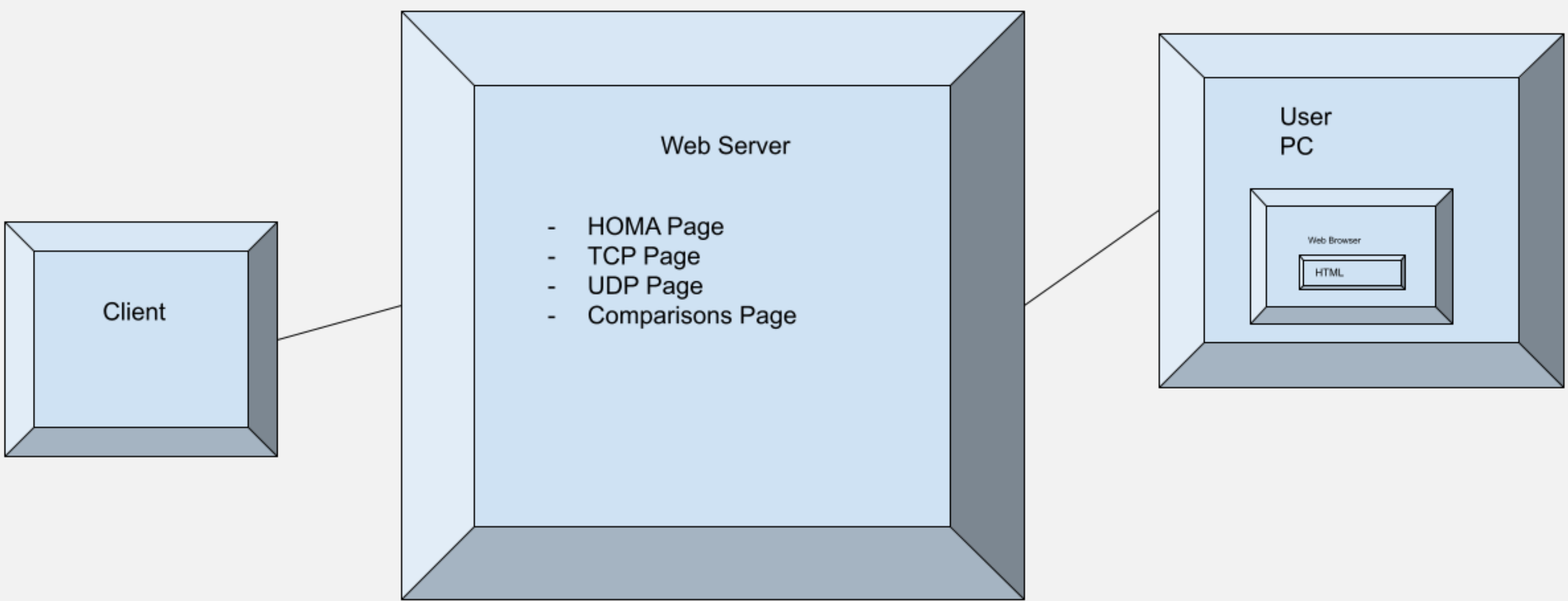
CURRENT SYSTEM

While I was more involved with the creation of the website rather than of the HOMA implementation itself, the current system for HOMA is one that is able to calculate how long in nanoseconds it takes to send a message.

IMPLEMENTATION

Front end: HTML and CSS
Back end: Fares Amamou did this part with JavaScript
GitHub was used to put in all the files for the project in general.

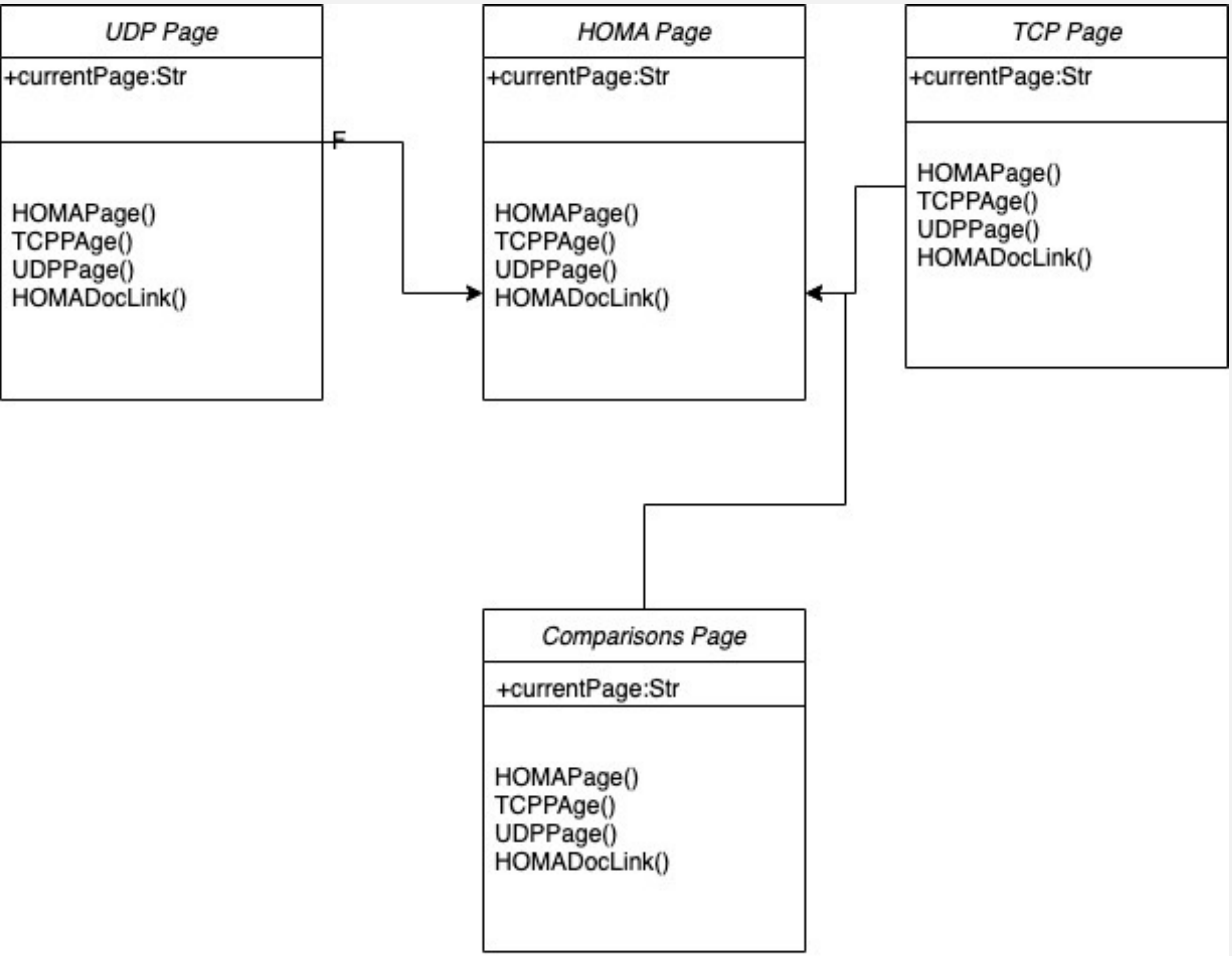
DEPLOYMENT DIAGRAM



VERIFICATION

The following website that is used to show comparisons between HOMA against other transport protocols such as TCP and UDP has been confirmed to work well when opening the HTML files on a separate browser like Safari.

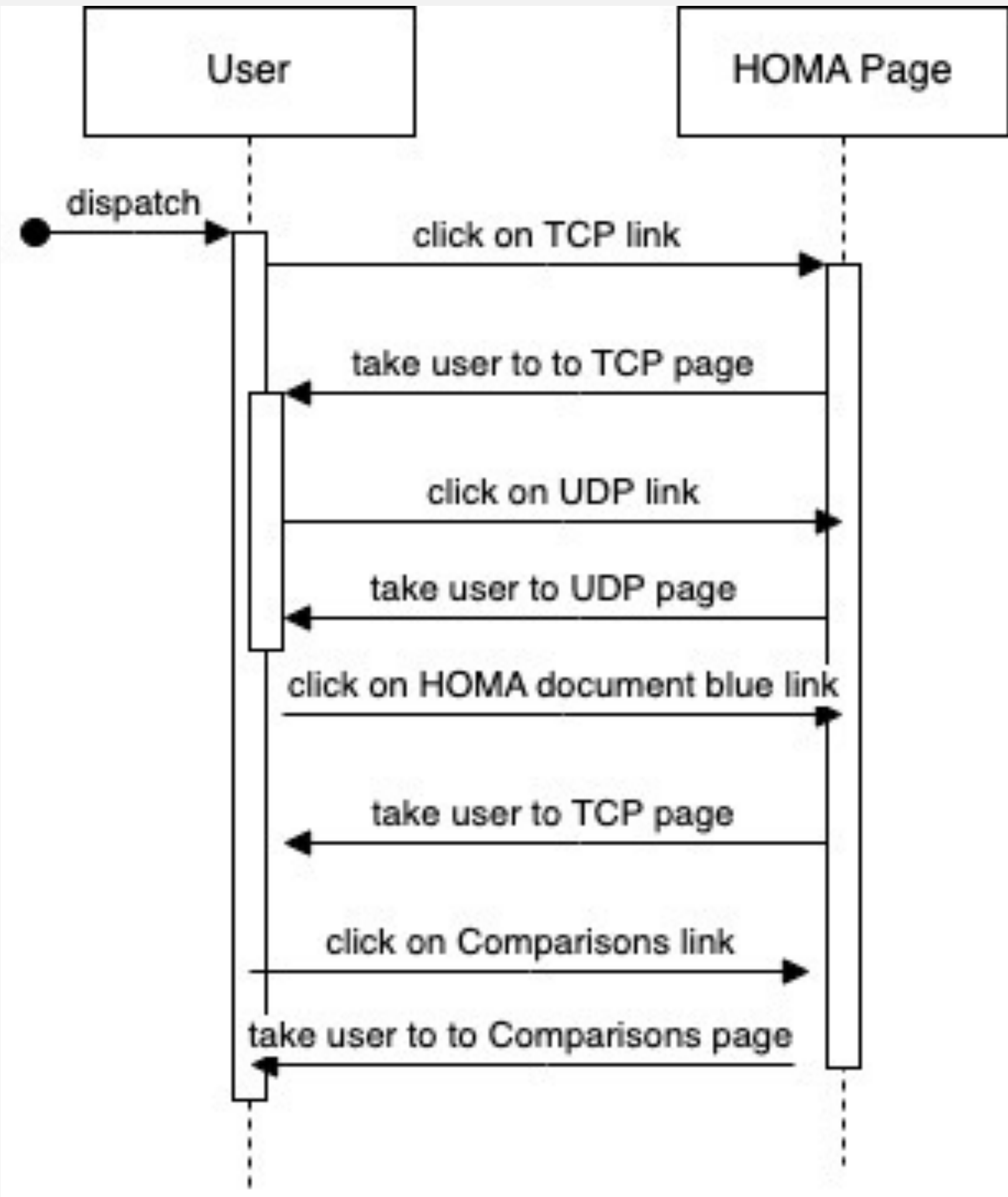
CLASS DIAGRAM



SUMMARY

Through my work on this project, I was able to get more familiar with the HOMA protocol and the advantages it has over different protocols through research and going through the different diagrams for comparisons. It also allowed me to be able to widen my horizons by learning about a new protocol that I was not familiar with before.

SEQUENCE DIAGRAM



ACKNOWLEDGEMENT

I thank Wenjia Wang and Dr. Masoud Sadjadi for his/her/their assistance and mentorship that I/we received throughout the senior design project.