

Framework Design

In this recitation you will design plugin interfaces for a chat application.

We have provided an implementation of a simple chat application in your Git repository. However, all it can do right now is to broadcast text messages clients through a chat server. Your goal is to identify common parts and variable parts in the implementation, design plugin interface/extension/callback mechanisms for variable parts, incorporate the plugins in the core implementation and write sample plugins if you have time. Hopefully, the chat application will become much more interesting by the end of the recitation.

Instructions

- Skim the implementation of the chat program to familiarize yourself with the code.
- Identify the common parts and variable parts in the implementation.
- Brainstorm on what extensions the users of this chat application might want and discuss whether these extensions can be integrated into the chat application.
- Pick one idea and design the extension API.
- Modify the core implementation to incorporate the extension point.
- Write one or more sample plugins based on your extension API.

Some design decisions to make

- What can be the useful plugins?
- How generic should the extensions be?
- White-box or black-box framework design?