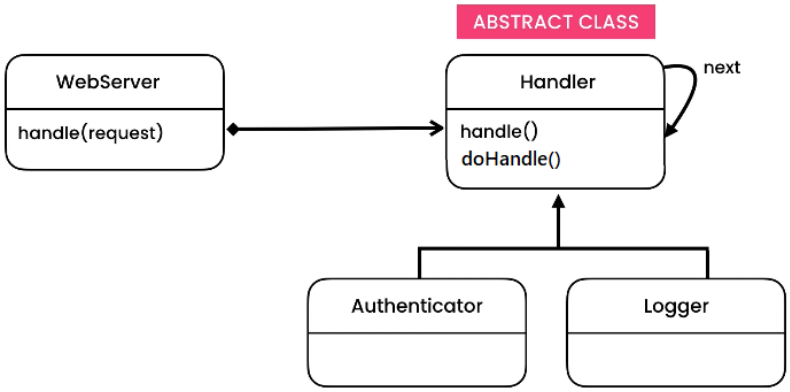
Chain of Responsibility Design Pattern

This pattern is used in situations where we need a chain of objects for processing a request.

Class Diagrams



Explanation

In this example, our imaginary application is a web server. There is a bunch of fields in HttpRequest class. The WebServer class gets the http request and handles it. In order to handle a request, some actions need to be performed such as authentication, compression, and logging. So we need the Authenticator, Compressor, and Logger classes for doing these tasks. we can't call these classes in the WebServer class because of coupling. So there is a Handler interface that it interacts with. The Handler has a reference to the next Handler in the chain. In the handle() method, we call the doHandle() method to check if all actions are done or not. the Authenticator, Compressor, and Logger classes overwrite the doHandle() method.

- In this example we also use "Template Method" pattern (handle() and dohandle() methods).