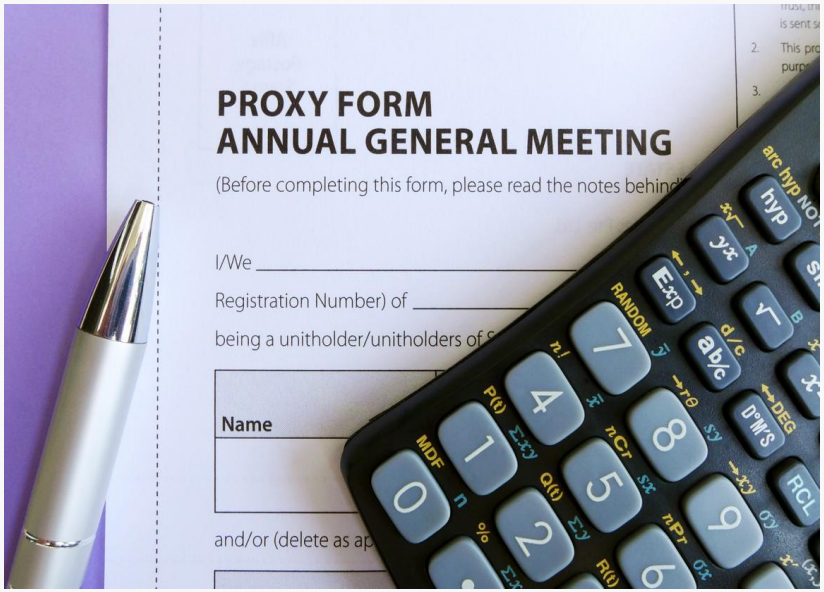
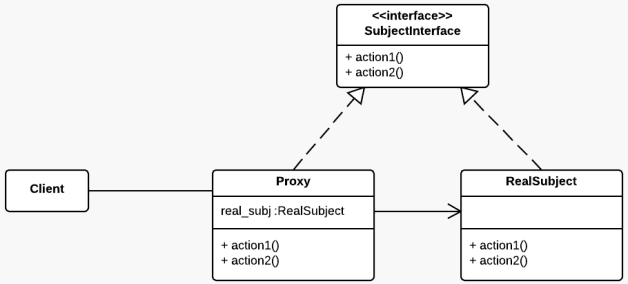
SWEN 383 Software Design Principles & Patterns
The Proxy Pattern





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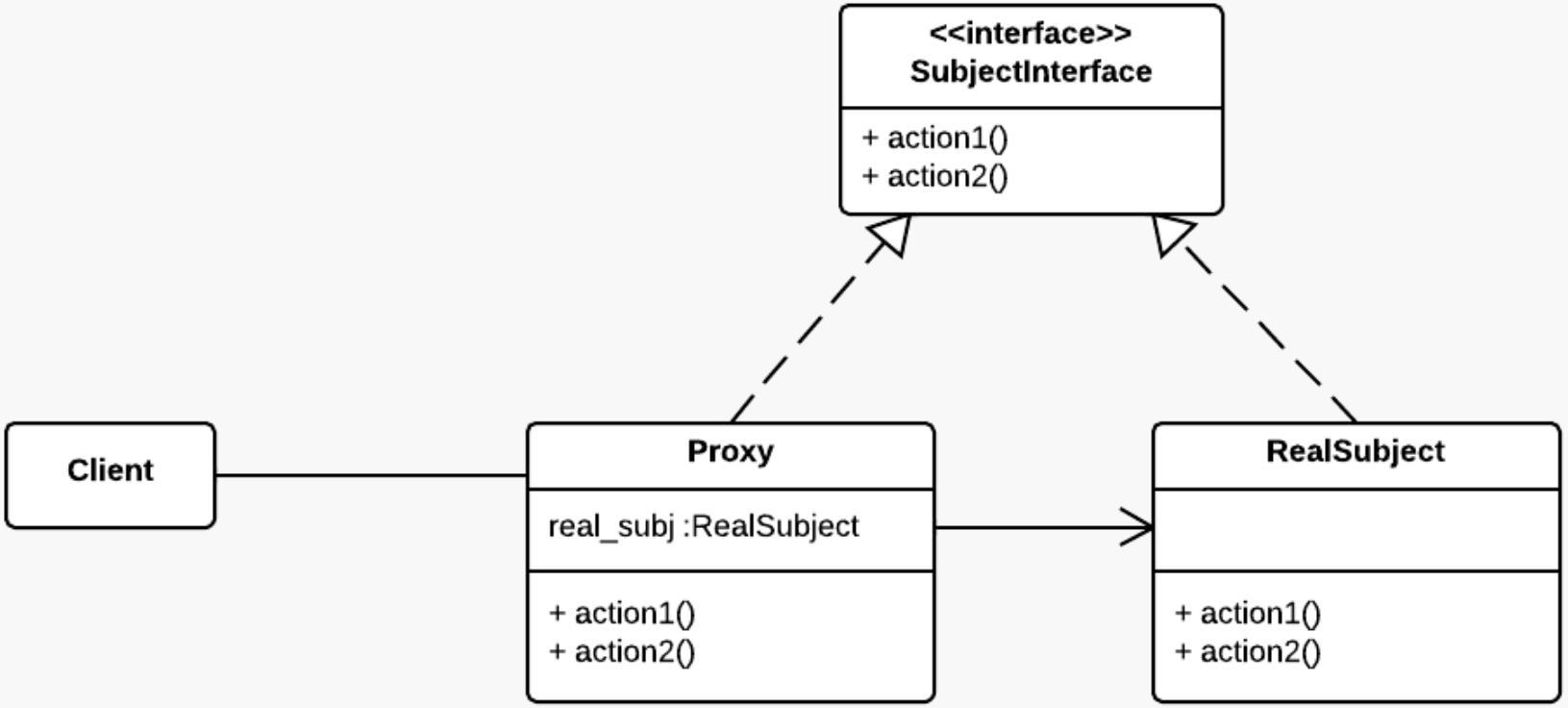
Basic Proxy



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Overview

Joe and Mary want to sign a contract.

Joe is in Canada.

Mary is in Argentina.

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Overview

Joe asks Sandy to be a *proxy* for Mary.

Mary asks Pedro to be a *proxy* for Joe.

*

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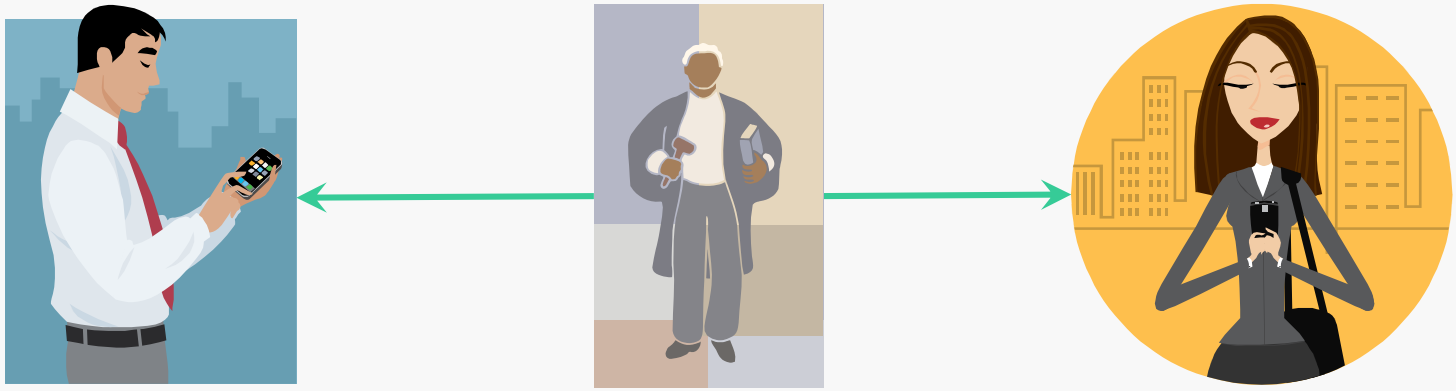
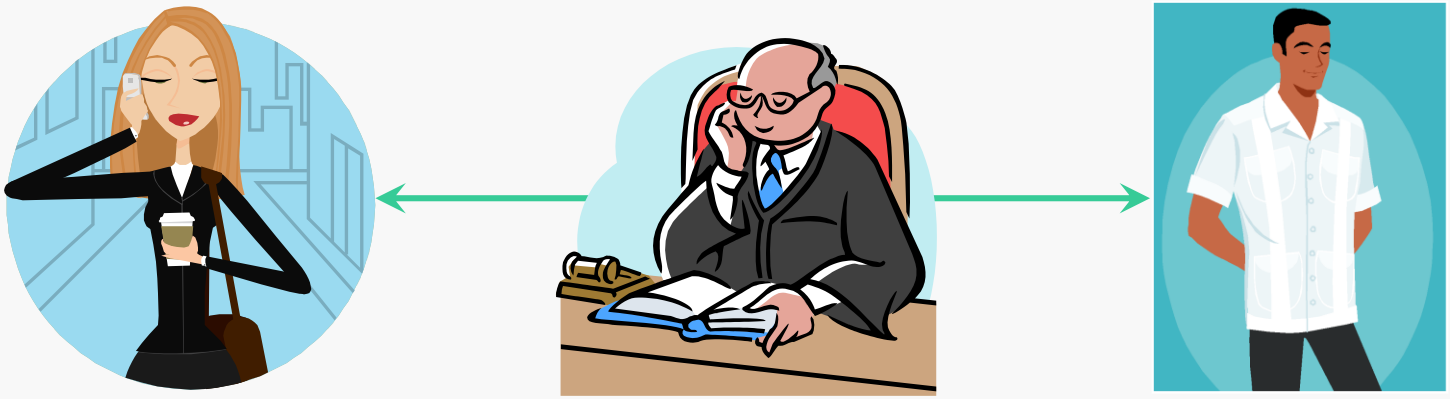
Overview



Joe “agrees with” Sandy as Mary’s stand-in.

Mary “agrees with” Pedro as Joe’s stand-in.



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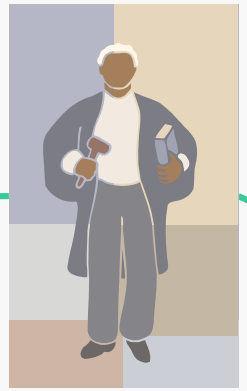
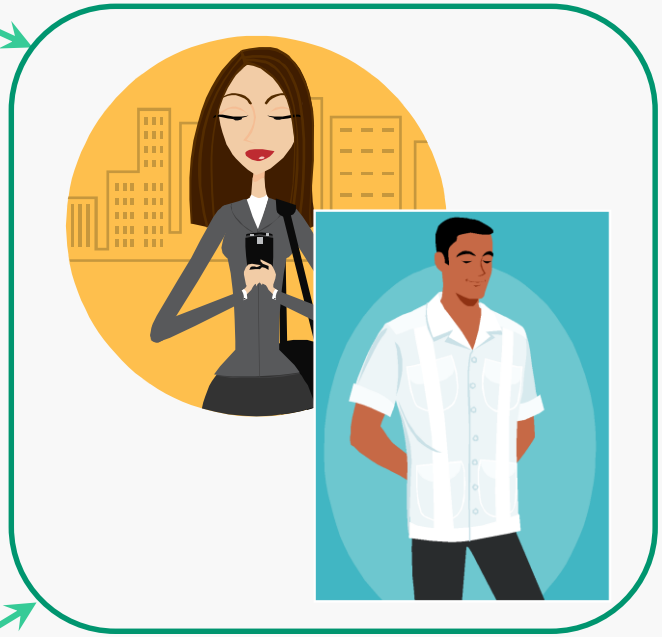
Overview





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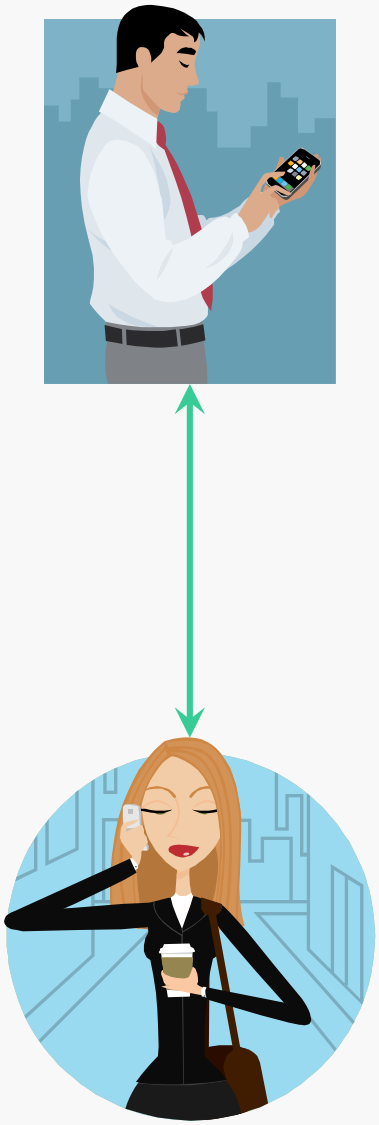
Overview



Joe and Mary now have a legal contract.

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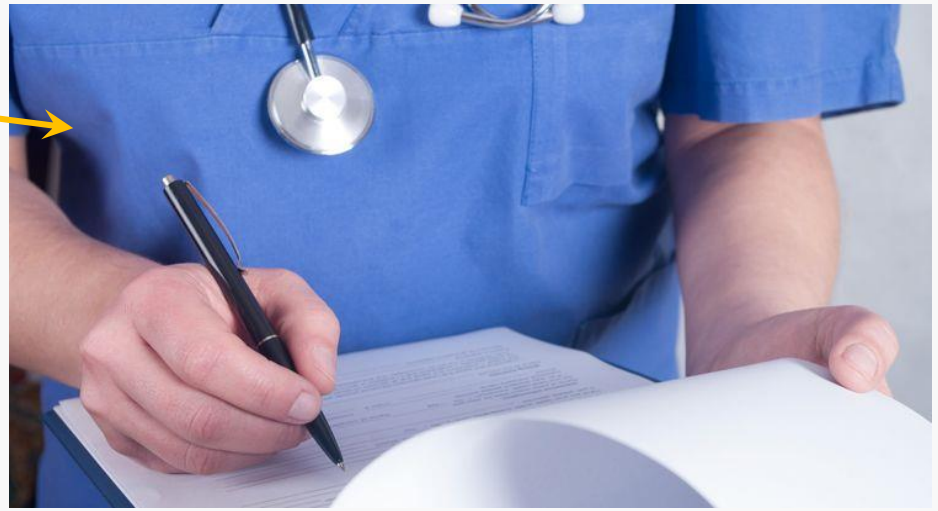
Health-care proxy

Joe needs to make health care decisions for his mother Jane's surgery.

The had a previous agreement through a Health-care proxy



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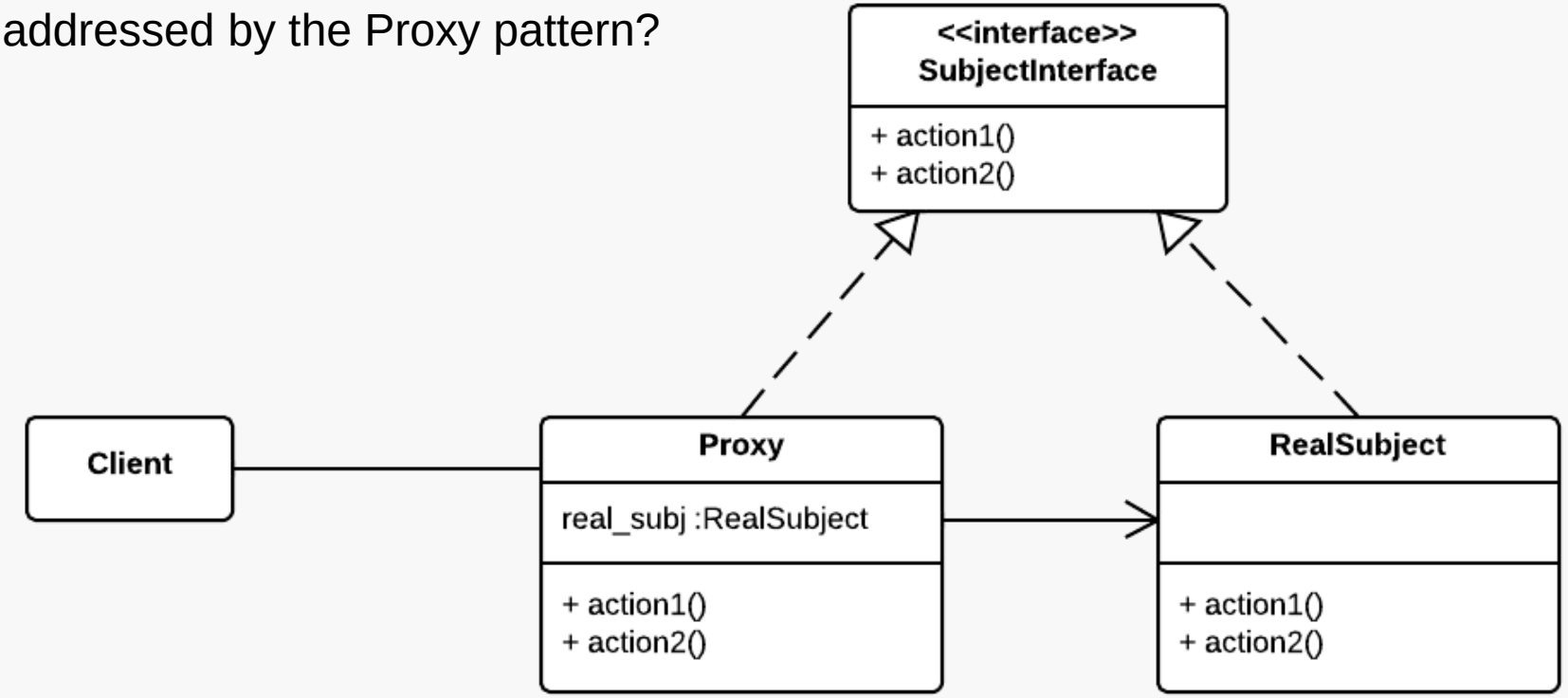
Basic Proxy

What is the primary design issue addressed by the Proxy pattern?



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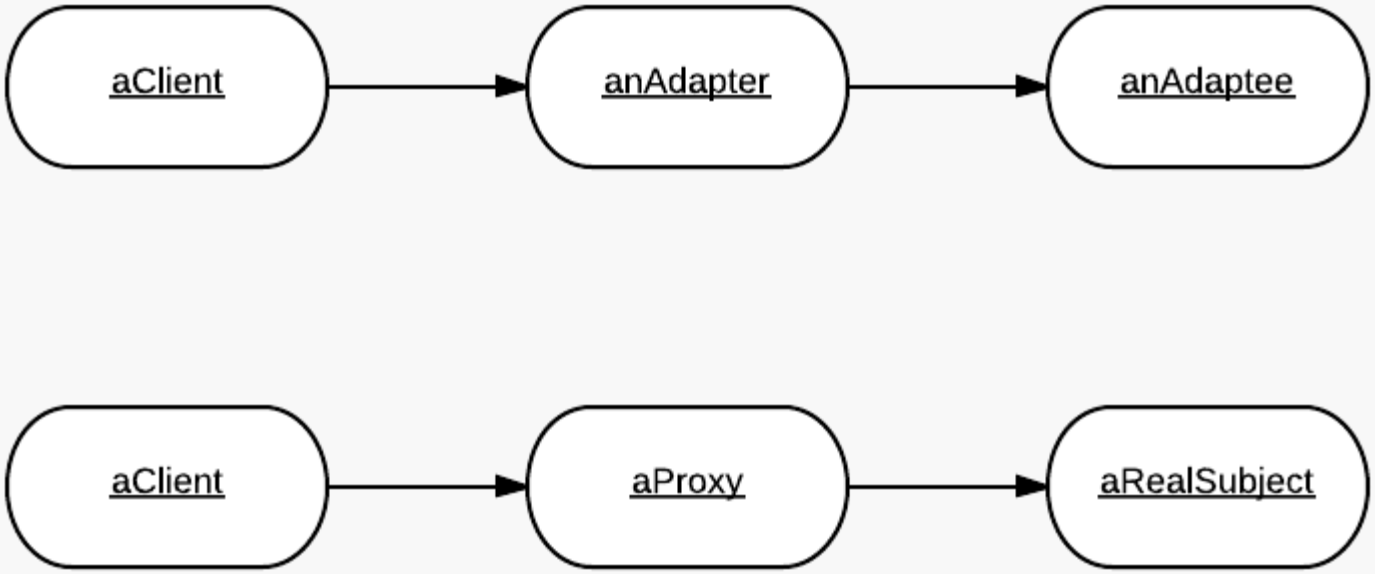
Proxy vs. Adapter



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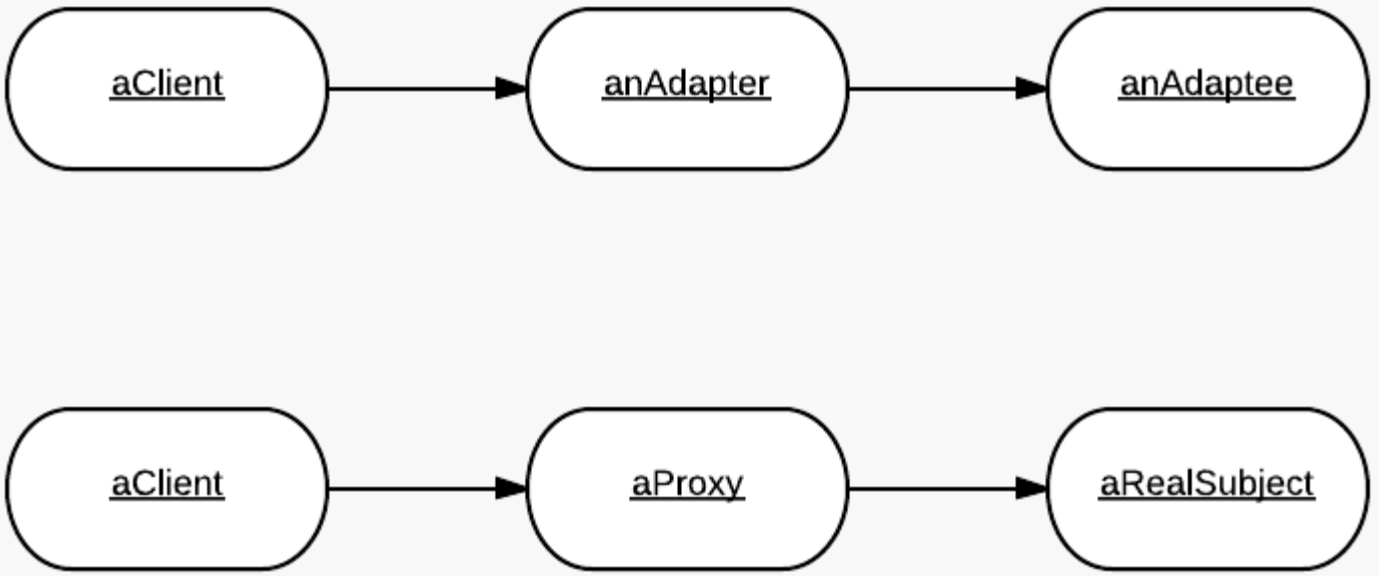
Proxy vs. Adapter

How are proxies and adapters similar?



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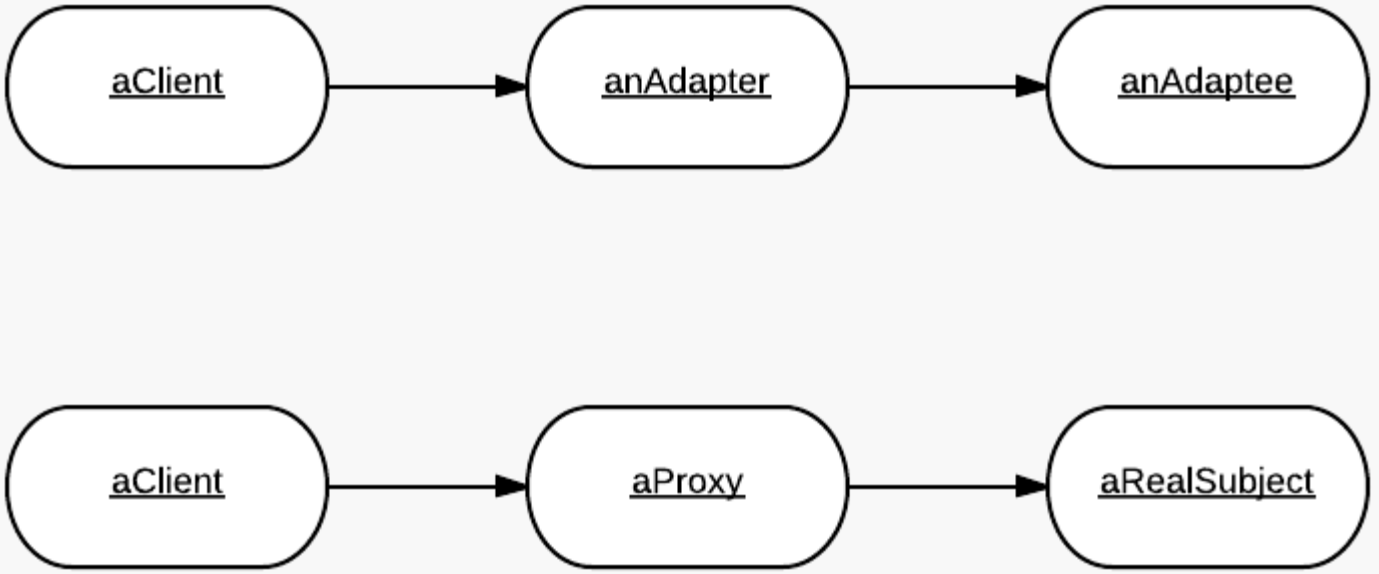
Proxy vs. Adapter

How are proxies and adapters different?



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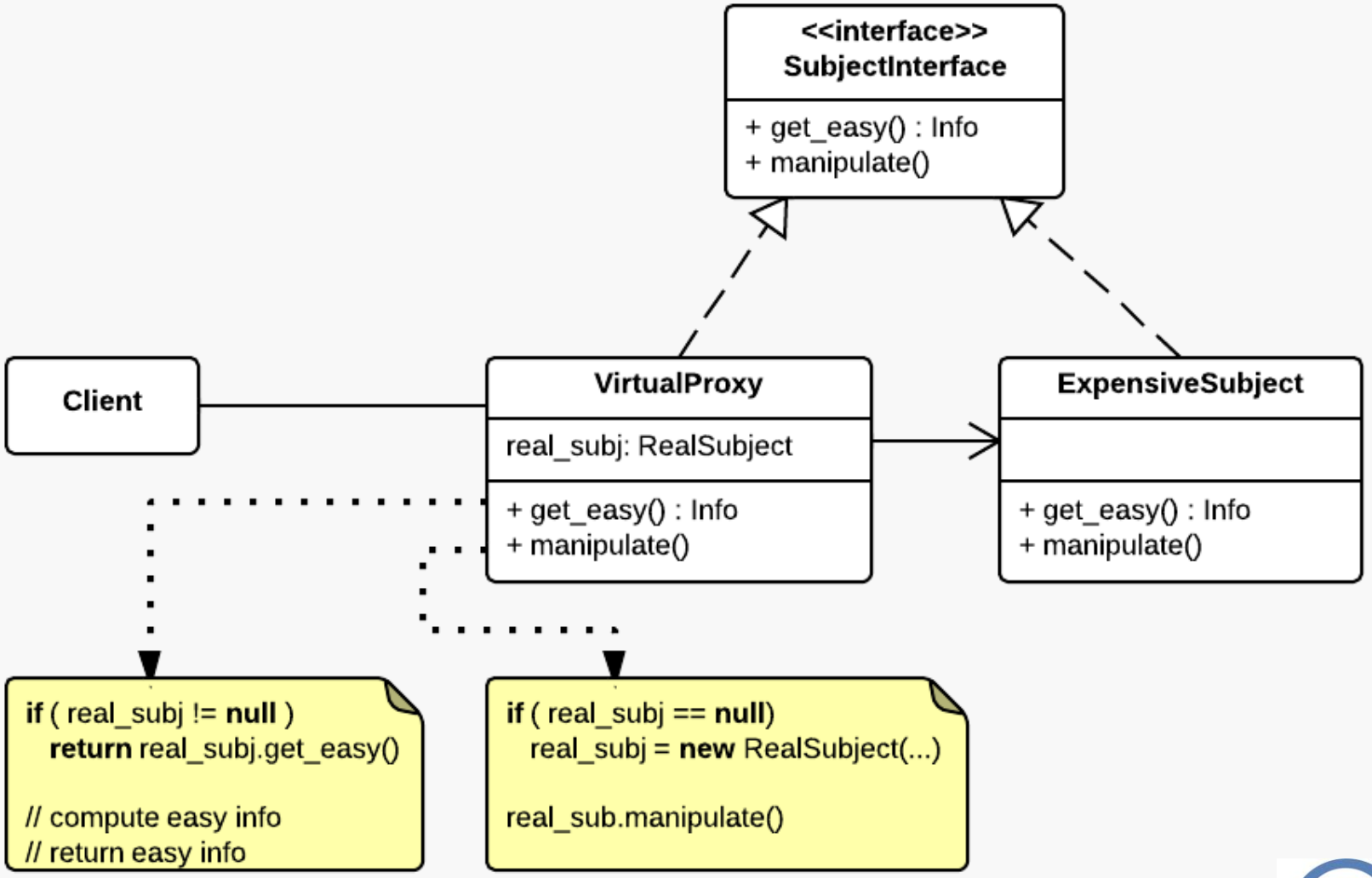
Virtual Proxy



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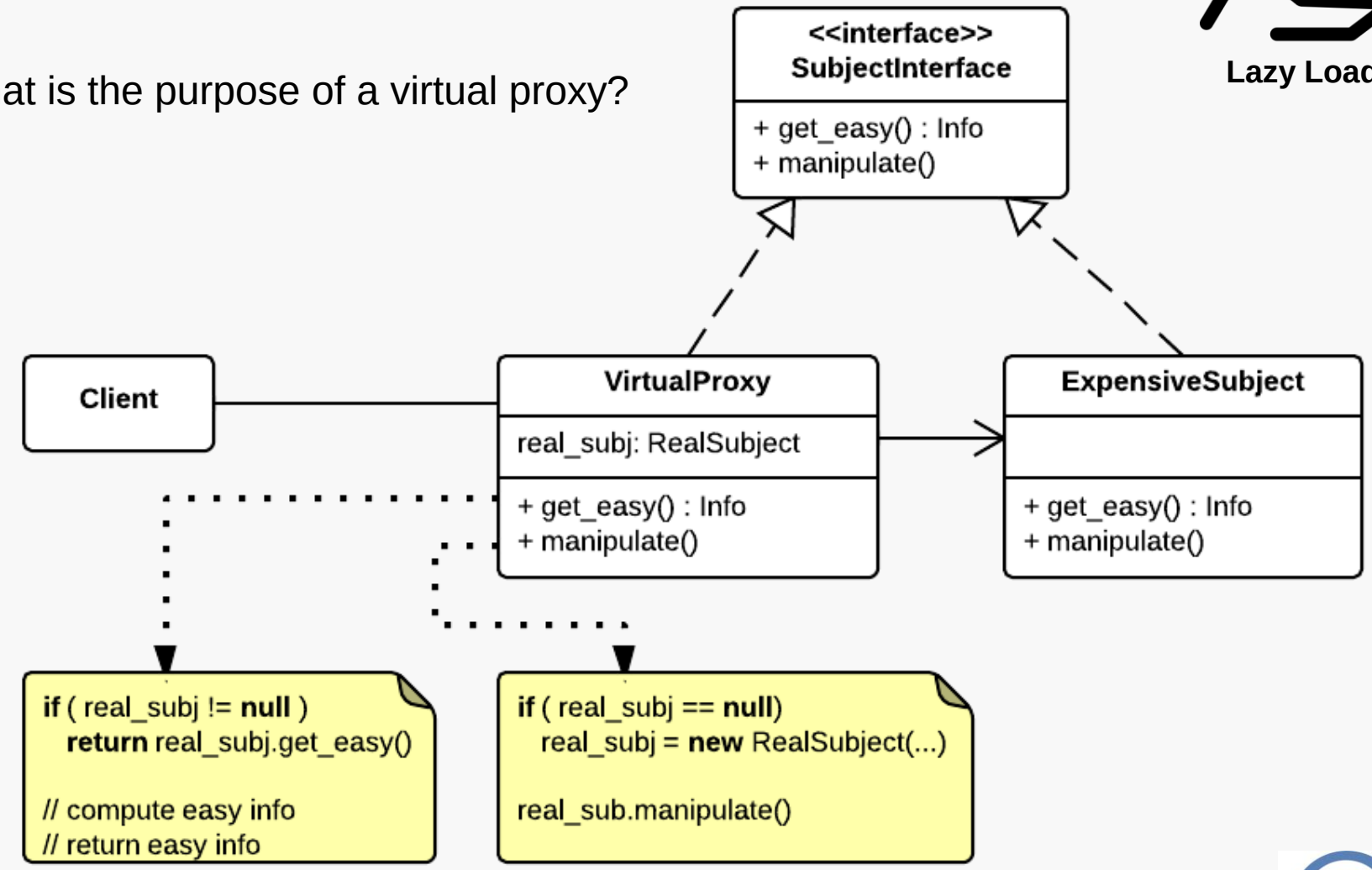
Virtual Proxy

Lazy Loading..

What is the purpose of a virtual proxy?



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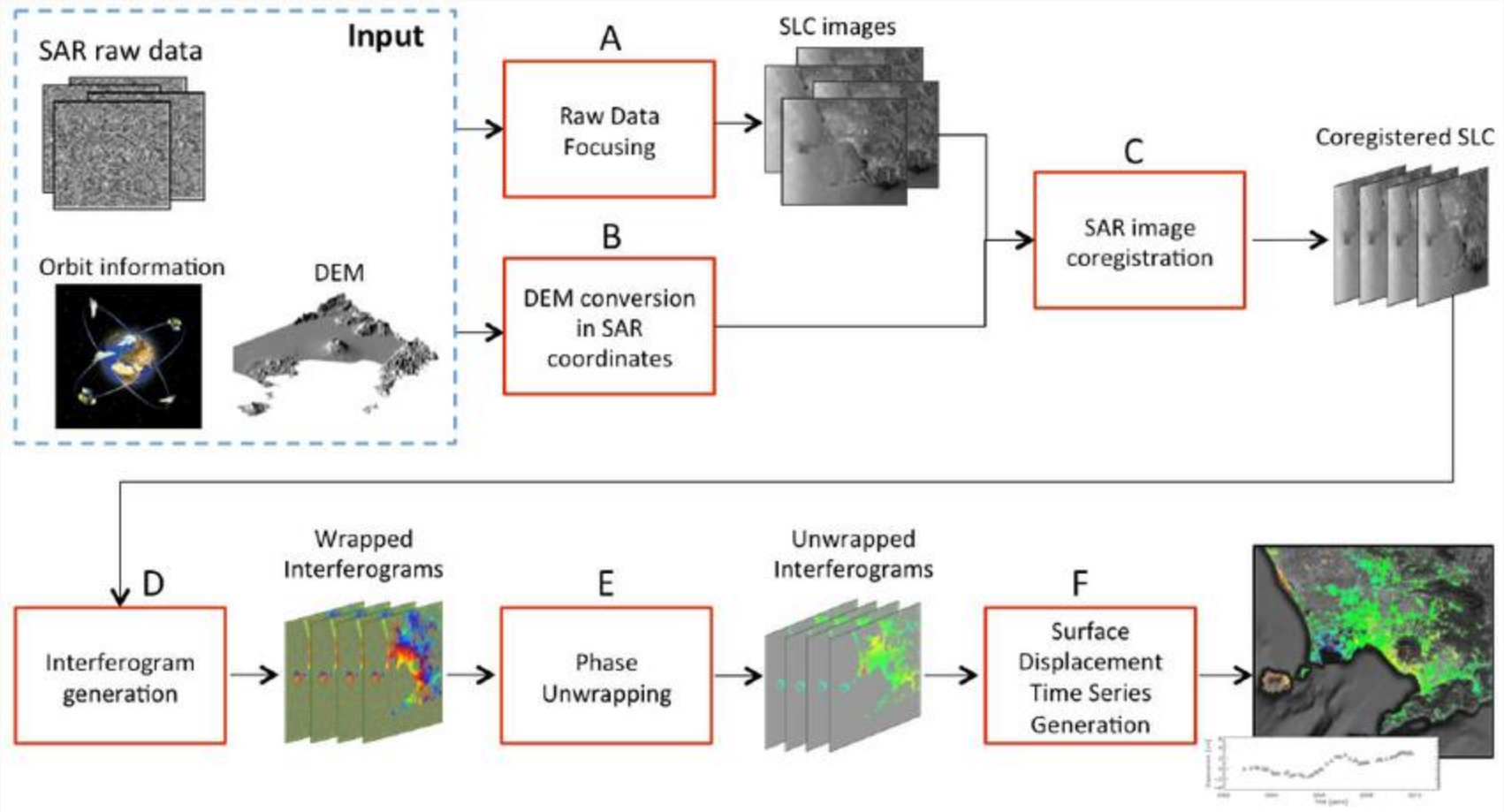

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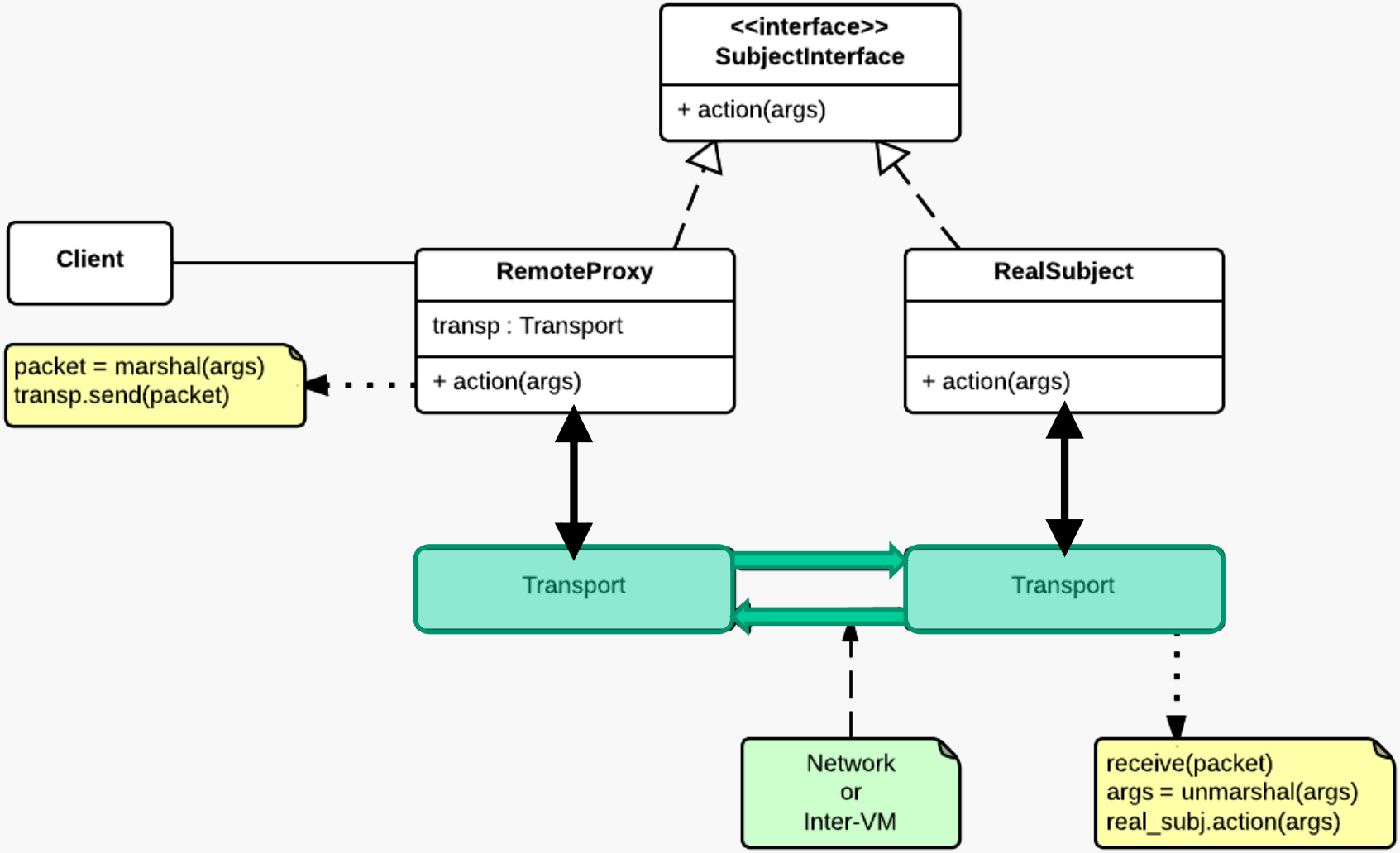
Remote Proxy



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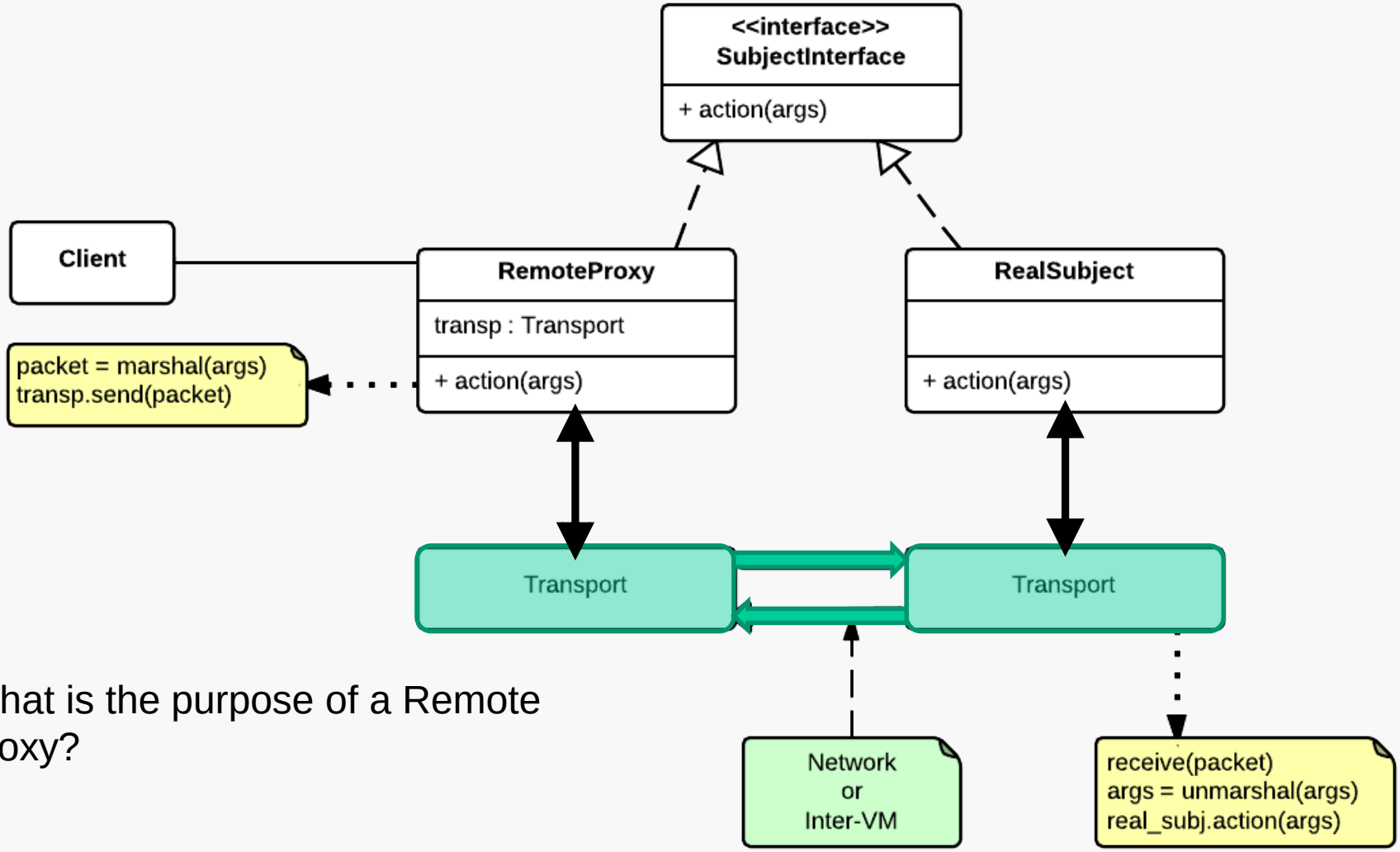
Remote Proxy



What is the purpose of a Remote proxy?

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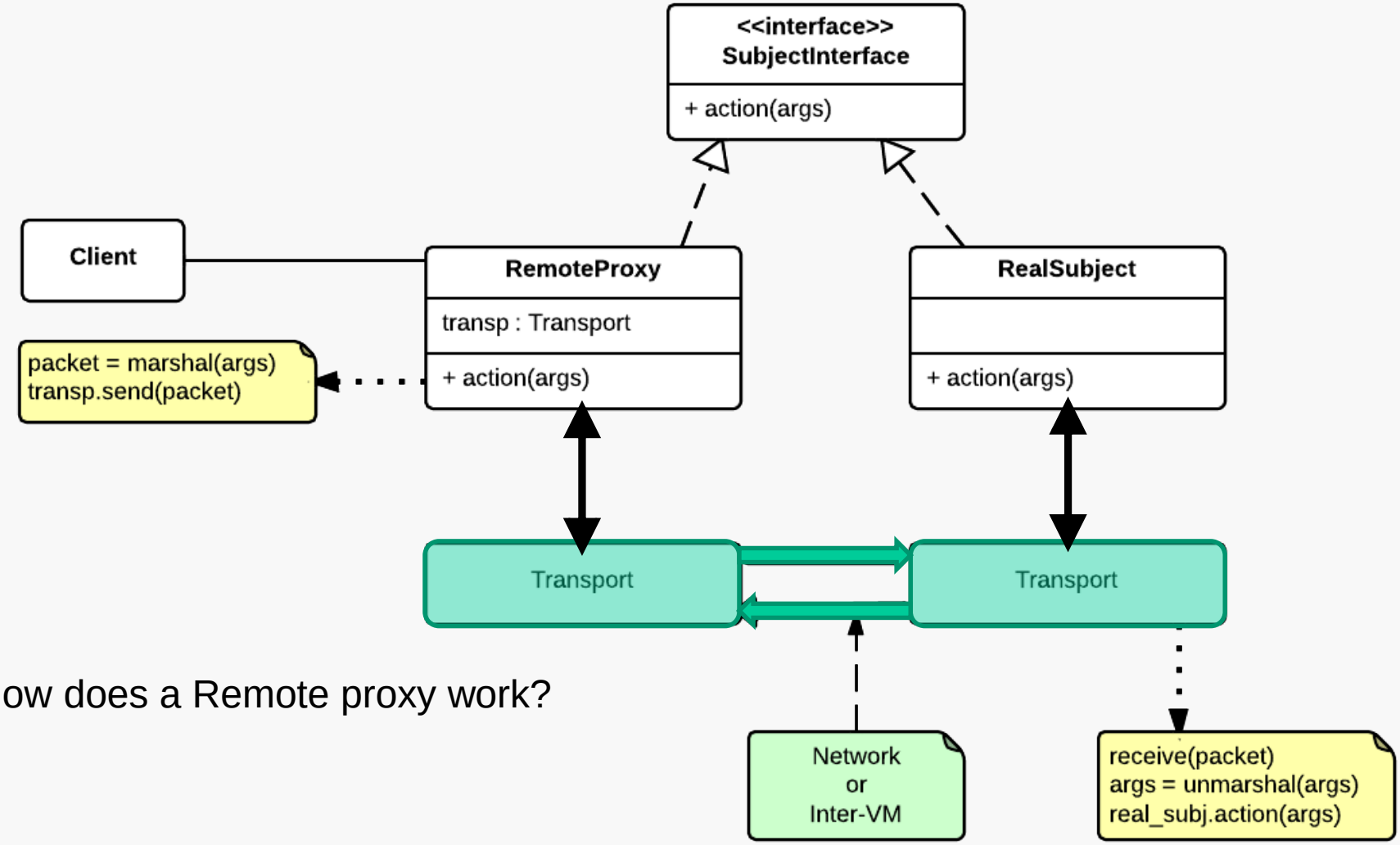
Remote Proxy



How does a Remote proxy work?

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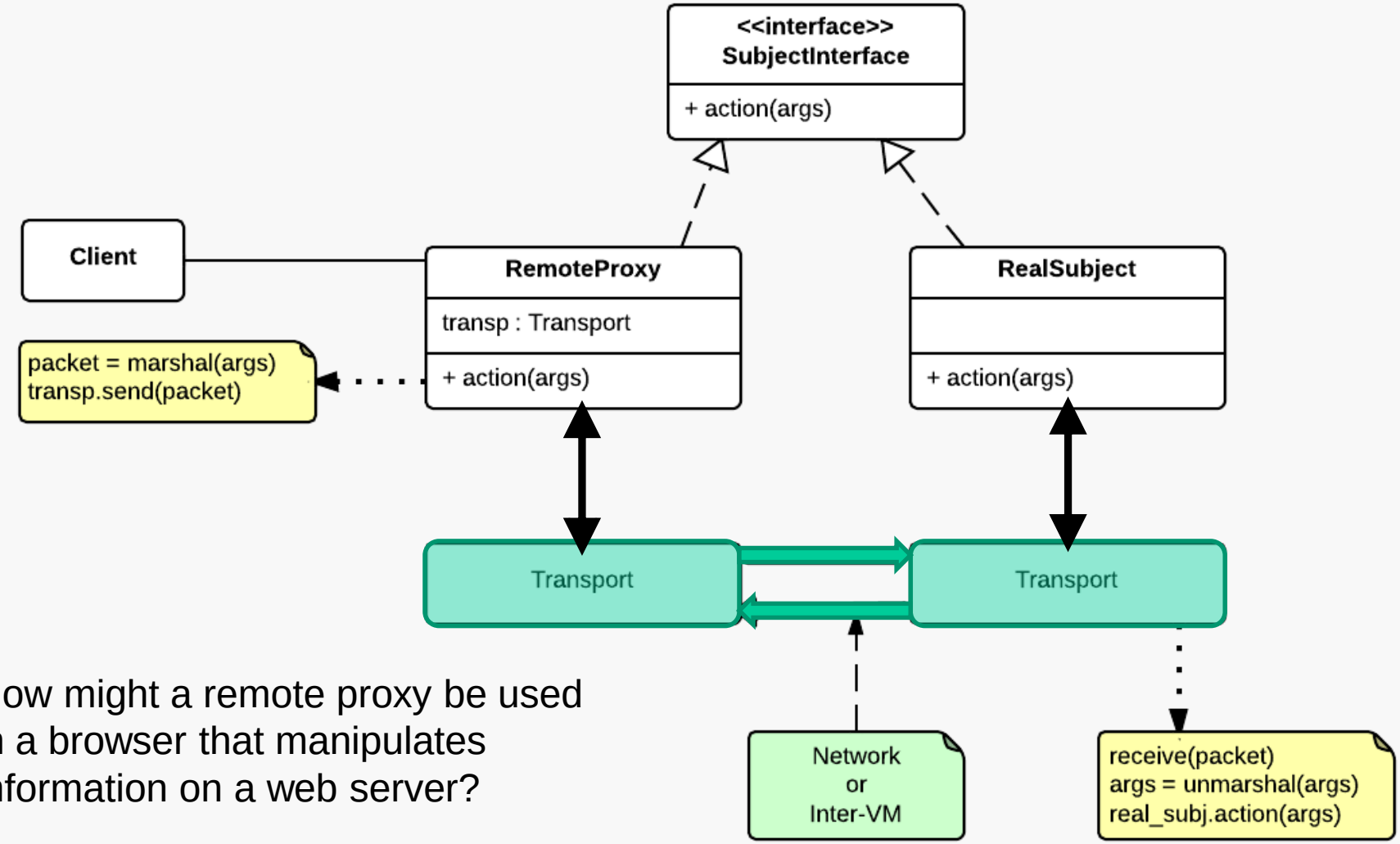
Remote Proxy



How might a remote proxy be used in a browser that manipulates information on a web server?

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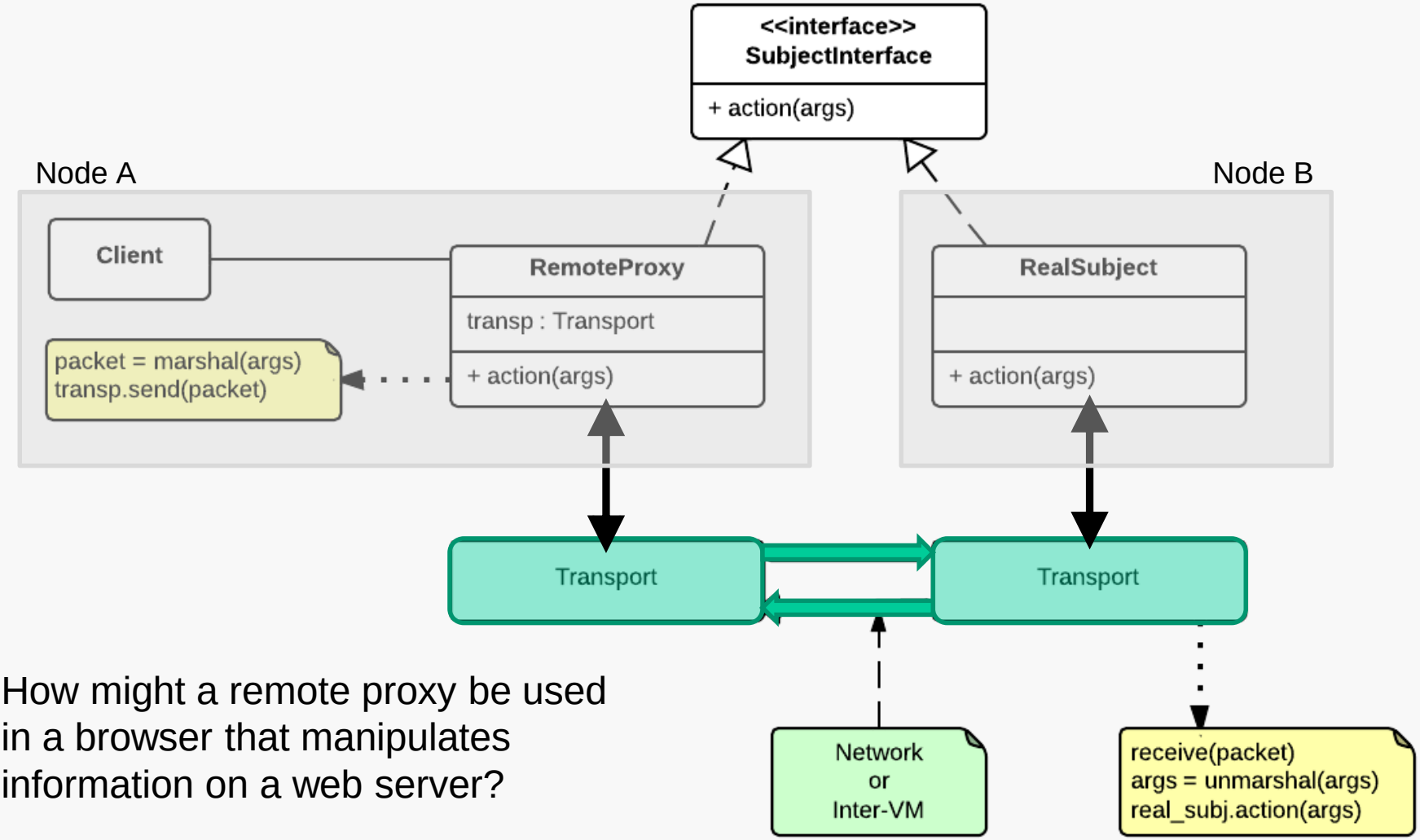
Remote Proxy



How might a remote proxy be used in a browser that manipulates information on a web server?

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A(proxy)

A ← The MAGIC SAUCE! ← B

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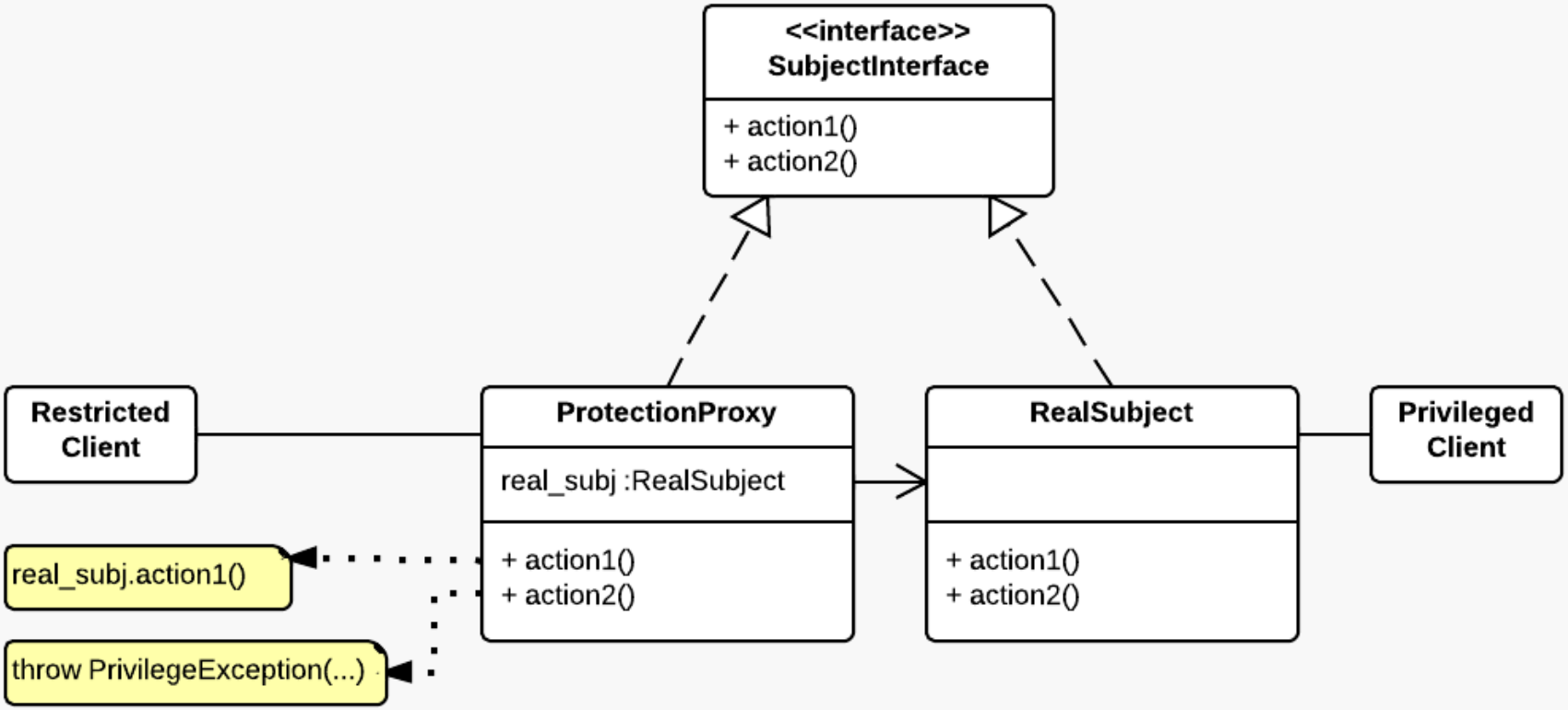
Protection Proxy



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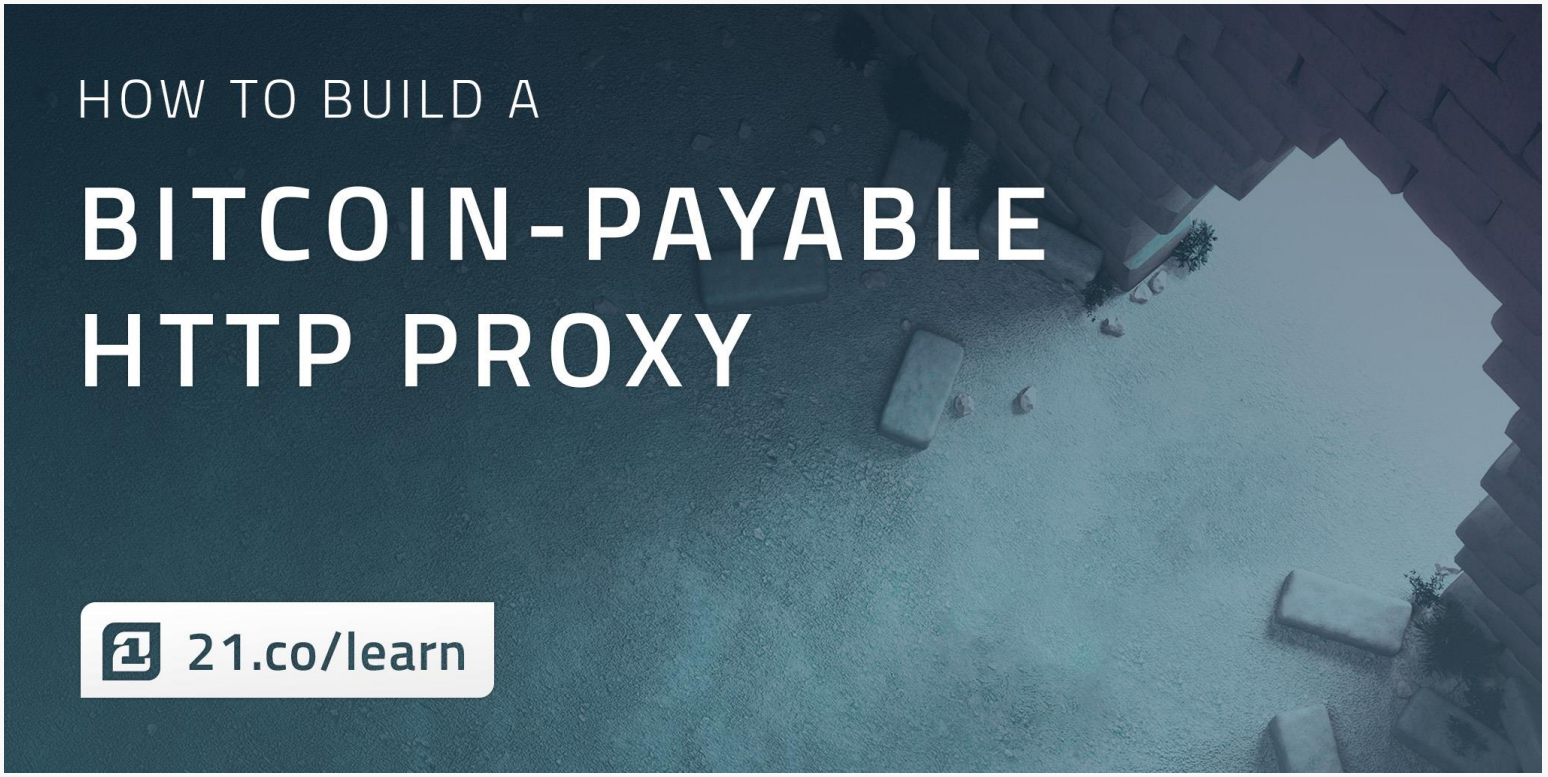

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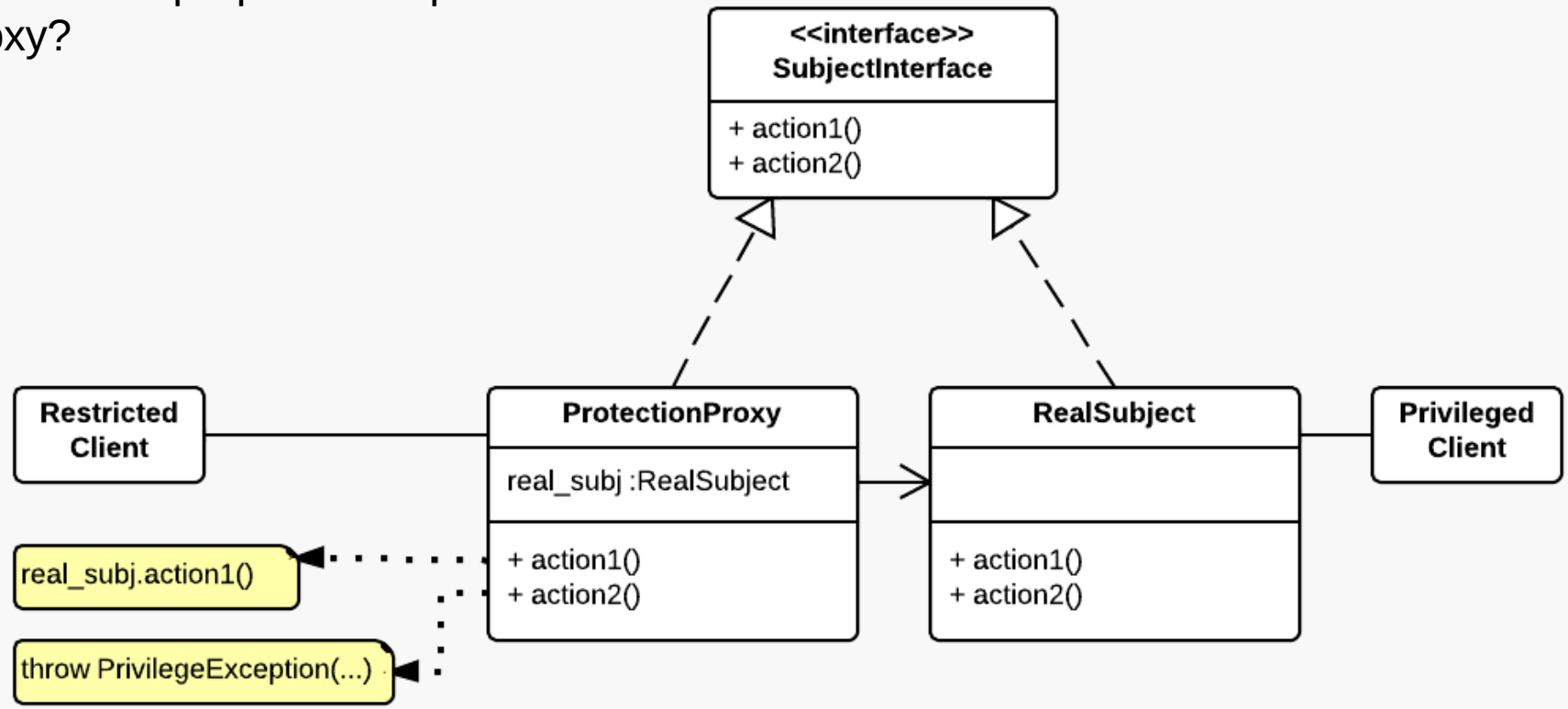
Protection Proxy

What is the purpose of a protection proxy?



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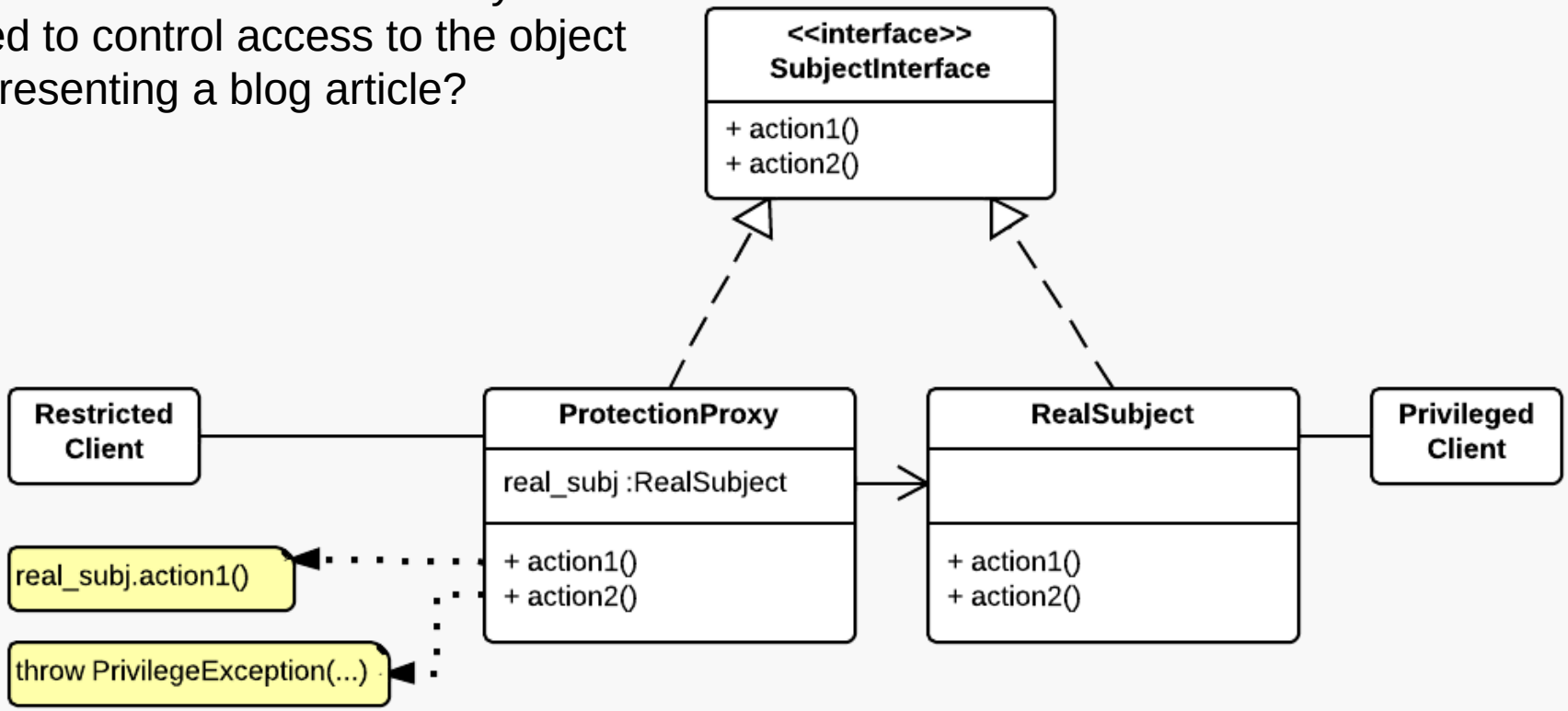
Protection Proxy

How could a Protection Proxy be used to control access to the object representing a blog article?



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