

SYSTEM DESIGN

WHAT IS SYSTEM DESIGN?

SYSTEM DESIGN IS THE PROCESS OF DEFINING THE ARCHITECTURE, COMPONENTS, MODULES, AND DATA FLOW OF A SYSTEM TO ENSURE IT IS **SCALABLE, EFFICIENT, AND RELIABLE.**



Algorithms
and Data Structures



System Design

HLD / LLD



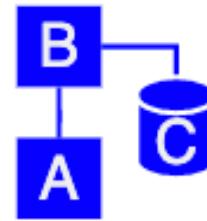
Programming Memes



HLD-LLD

In System Design

HLD
High Level Design



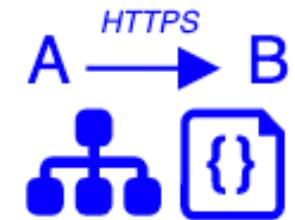
Structure,
components &
relationships



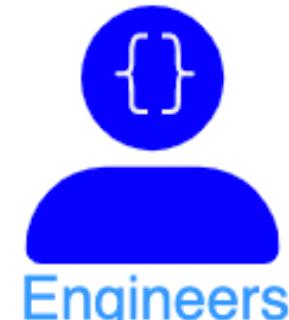
vs

Describes

LLD
Low Level Design

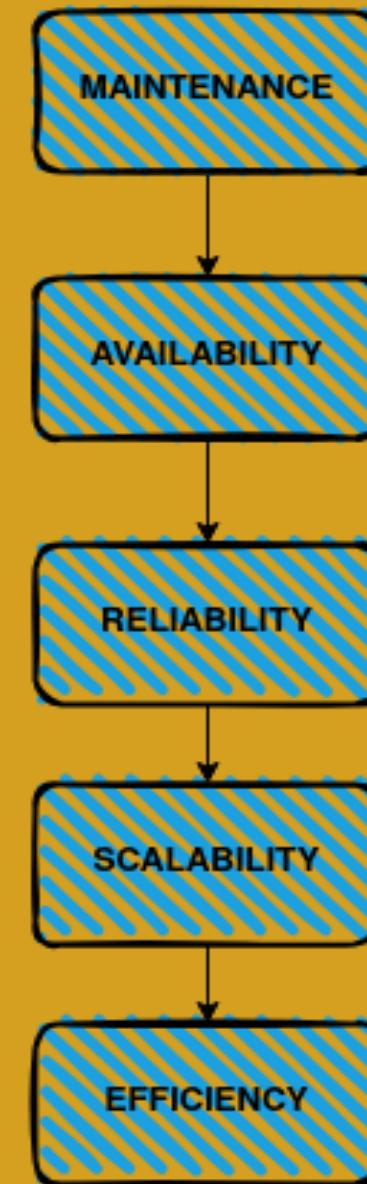


Implementation
details



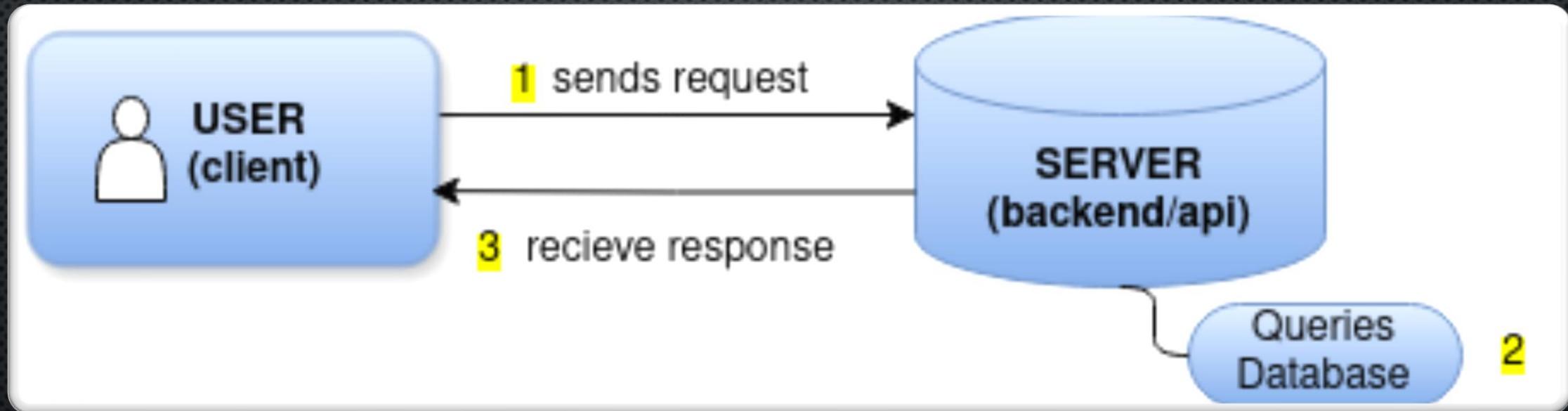
**Typically
created by**

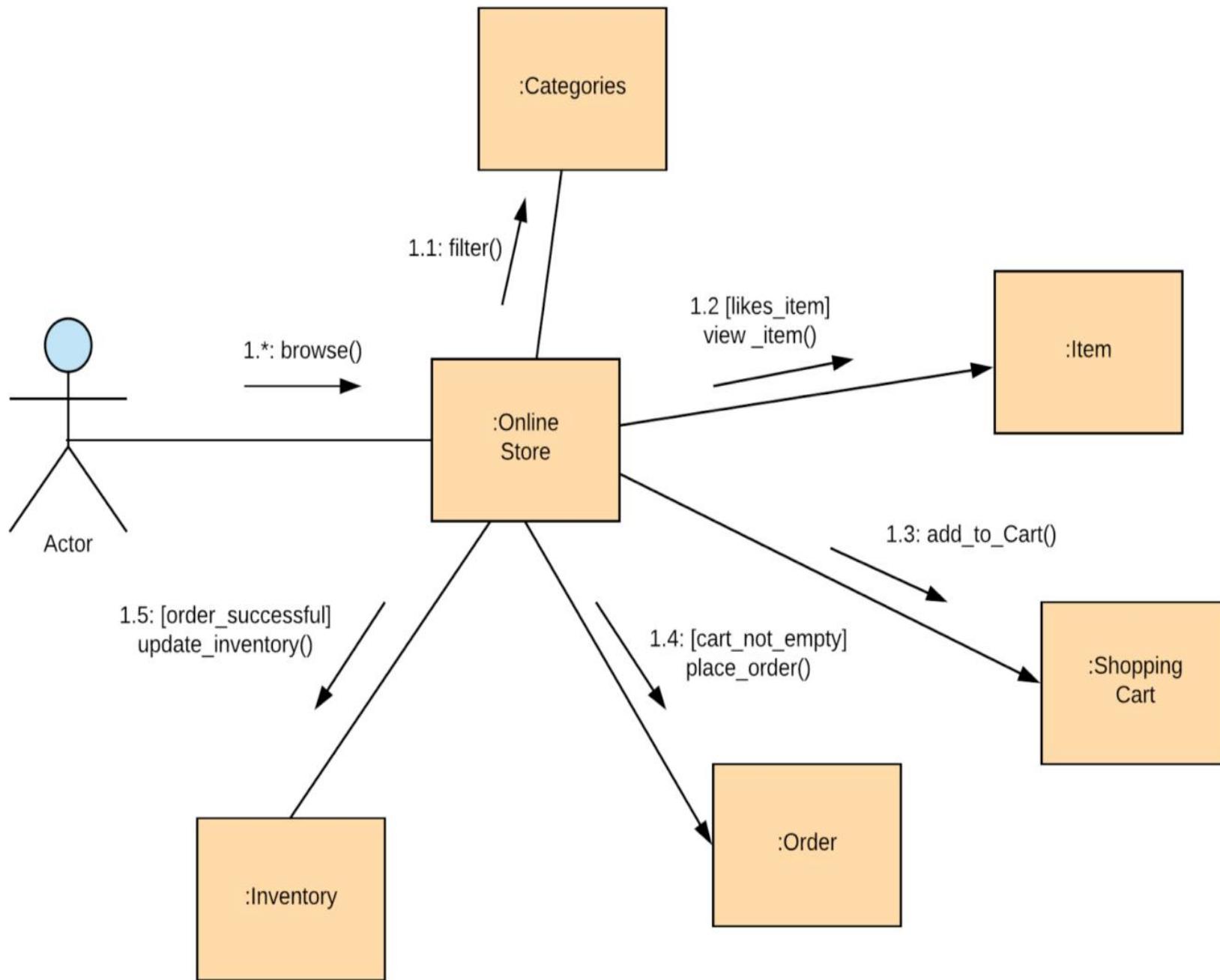
PRINCIPLES OF SYSTEM DESIGN



M
A
R
S
E

AN EXAMPLE : SHOPPING APPS

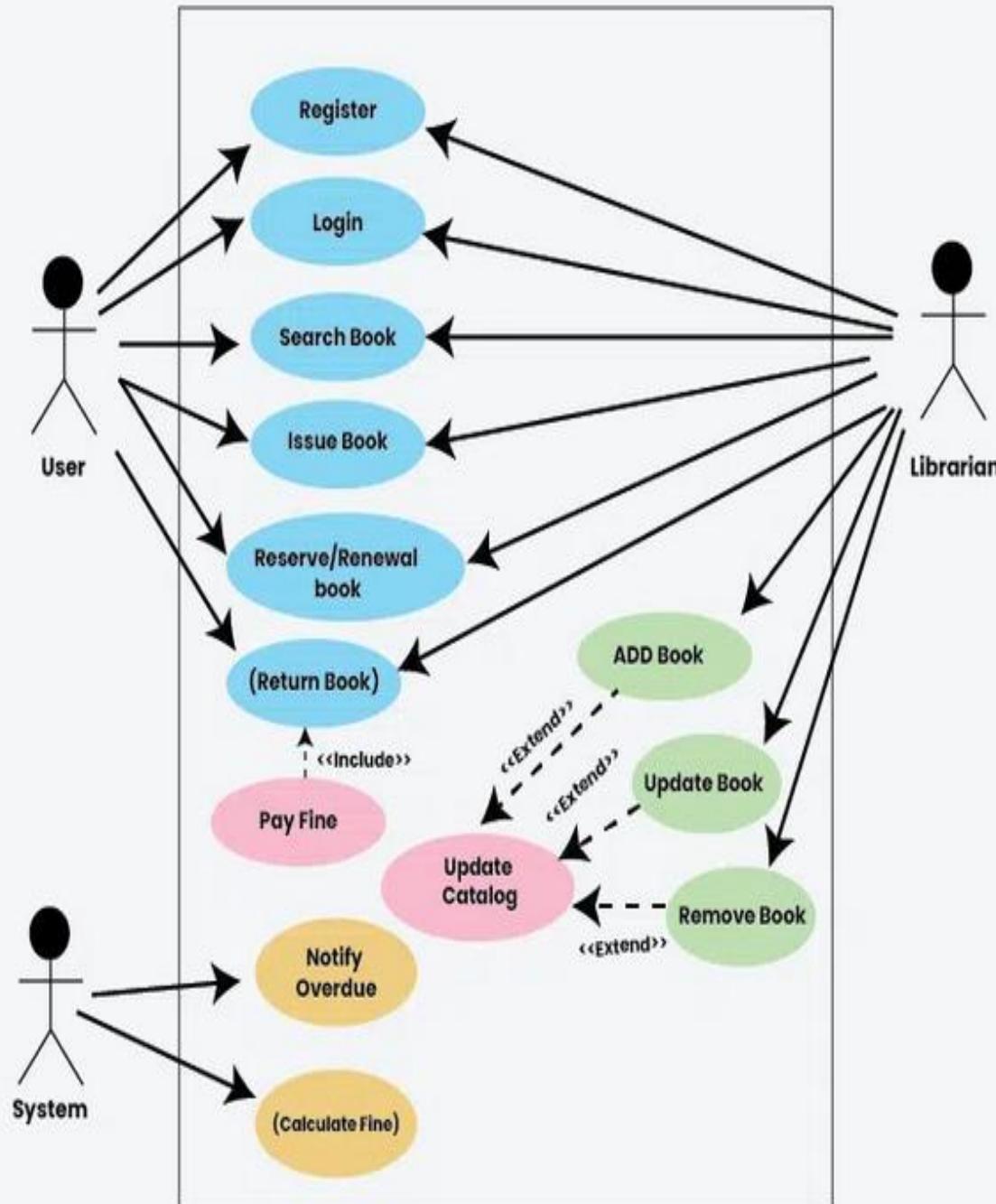




UML DIAGRAM

Unified Modelling Language
(visual representation for system design)

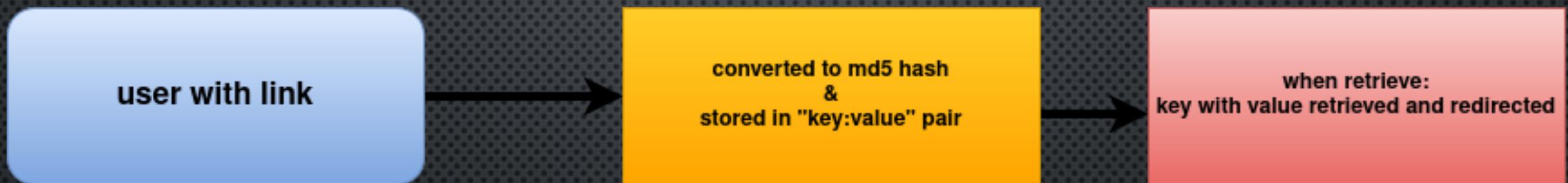
EXAMPLE USE CASE





PRACTICAL EXAMPLE: URL SHORTENER

HOW THIS WORKS?



THANK YOU