

Topics for this Lecture

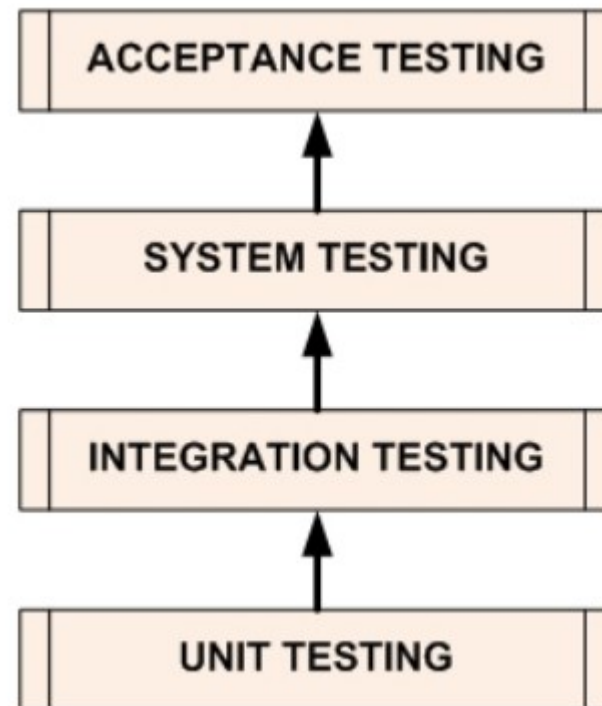
- Stages of Testing (Software Testing Levels)
- V-Model of Testing
- The Cost of bugs
- Sources of Problems (i.e., bugs)



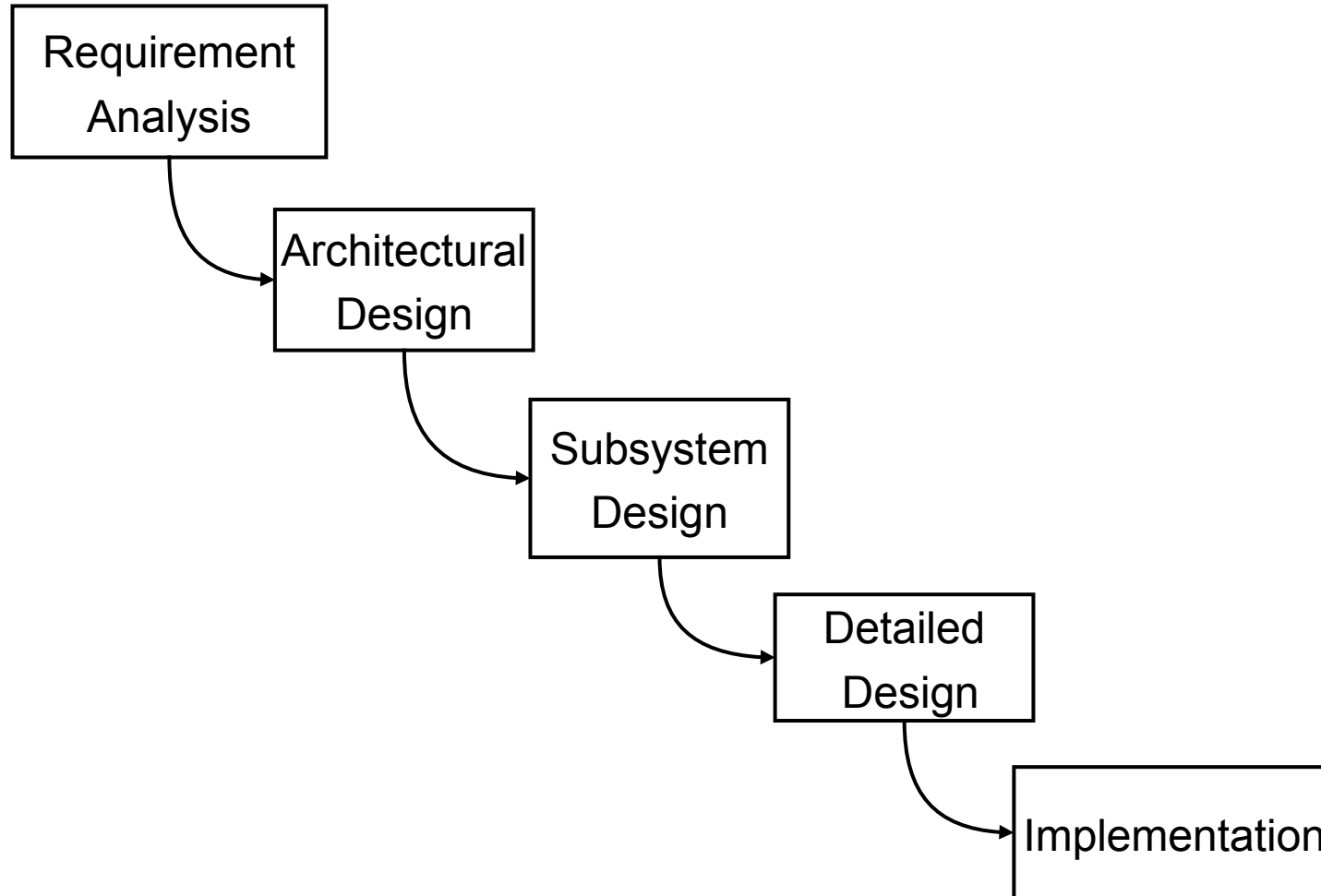
Stages of Testing

- There are generally four levels of tests:

Unit >> Integration >> System >> Acceptance Testing.



Software Development Life cycle (SDLC)



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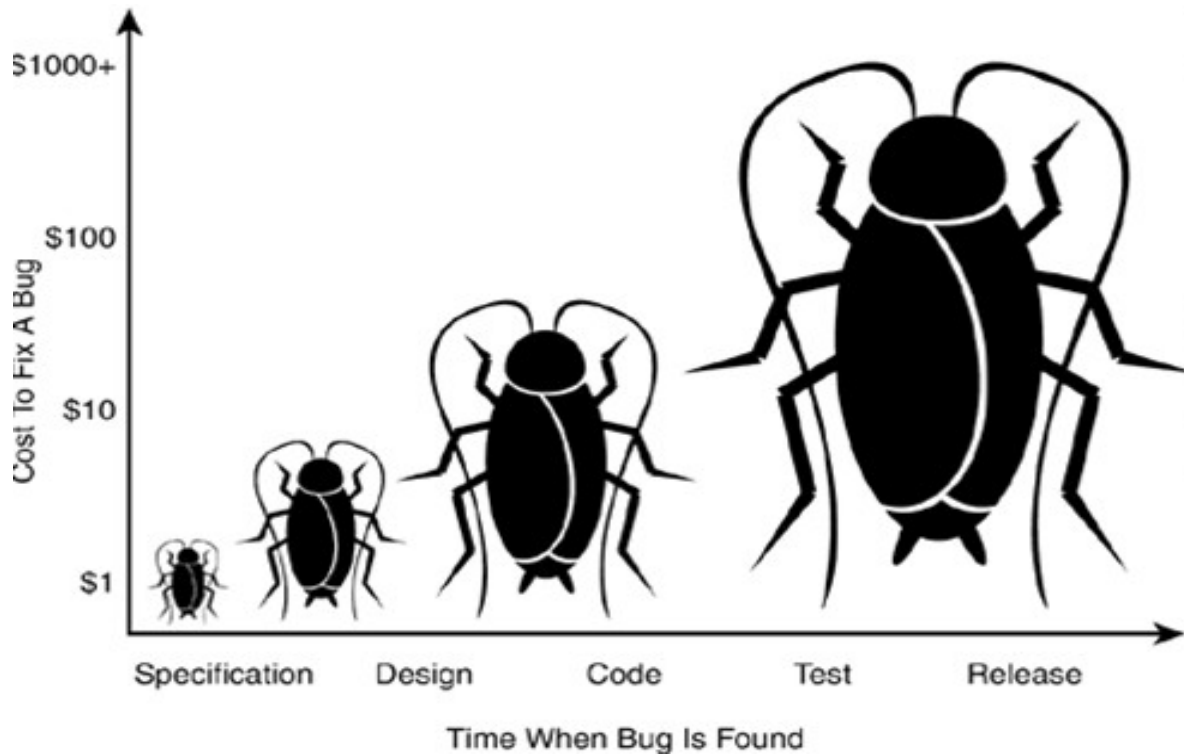
Sources of Bugs

- **Requirements Definition:** Erroneous, incomplete, inconsistent requirements.
- **Design:** Fundamental design flaws in the software.
- **Support Systems:** Poor programming languages, faulty compilers and debuggers, misleading development tools.
- **Evolution:** Sloppy maintenance, introduction of new bugs in attempts to fix old bugs.



The cost of bugs

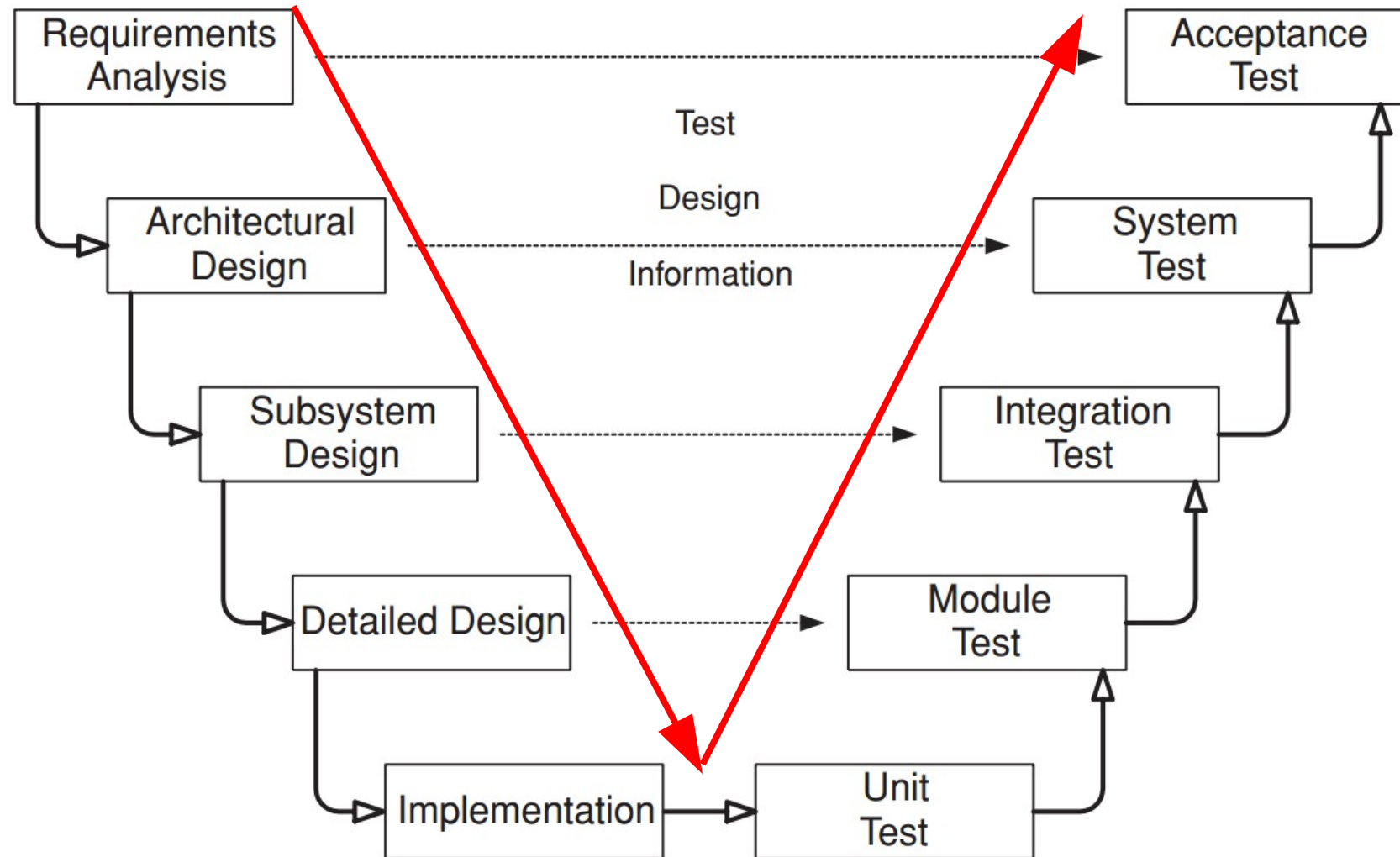
- The later the bug is found, the more expensive to fix:



V Model of Testing

Software Development Life cycle
(SDLC)

Software Test Life cycle
(STLC)



Software development activities and testing levels- the “V Model”



Oregon State
University

References:

Ammann, Paul, and Jeff Offutt. Introduction to software testing. Cambridge University Press, 2008.

Patton, R. (2005). Software Testing (2nd ed.).



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