Software Deployment

CS480 Software Engineering

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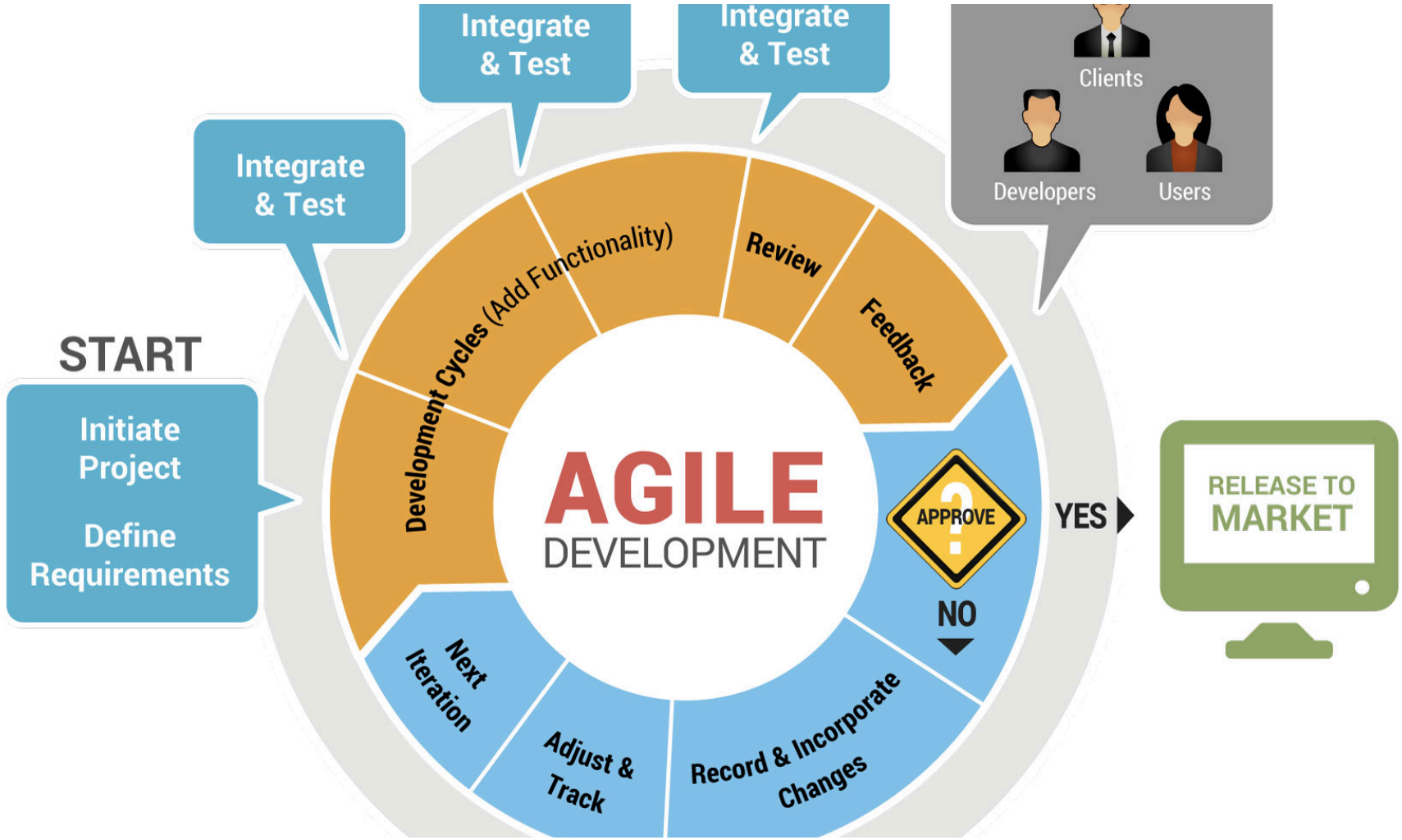
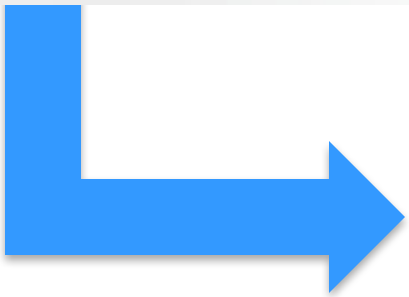
CAL POLY POMONA

Agile Development



Testing, Testing and Testing

Ready to Deploy

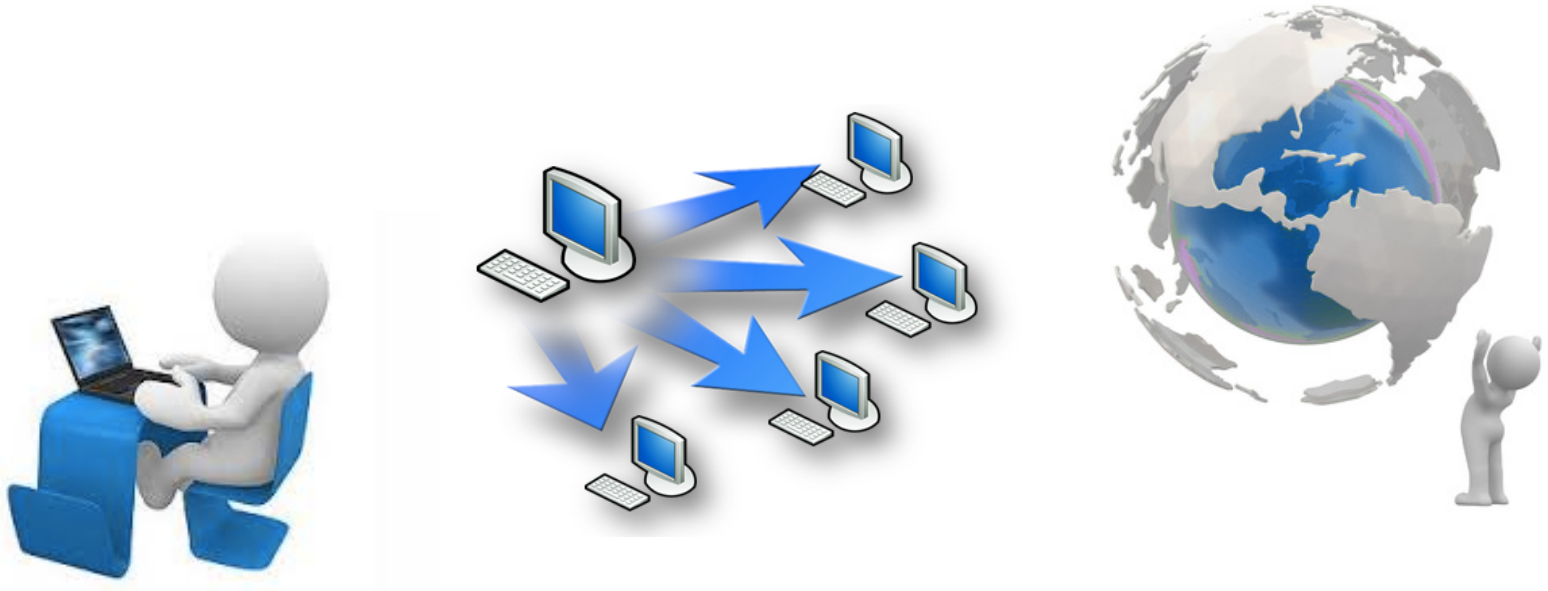


What is Software Deployment?

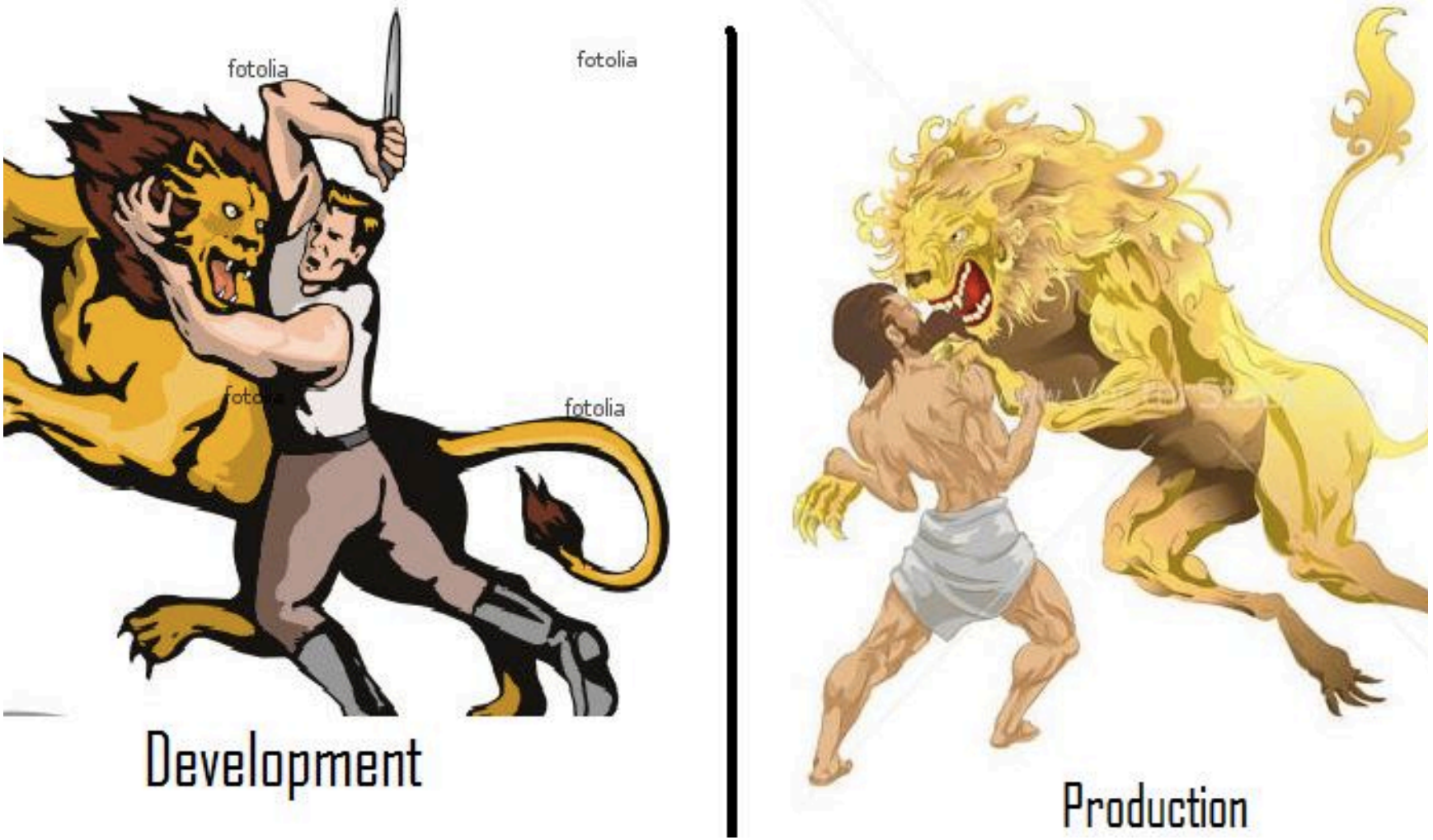
- *Software Deployment* is the art of deploying software artifacts produced as a result of build, on the target environment (*Development, Staging, Production*)

What is Software Deployment?

- Move your software from your local (dev) environment to the remote (prod) environment



Deployment is Risky



Deployment is Risky

amazon.co.uk

We're sorry

An error occurred when we tried to process your request.
ıg on the problem and expect to resolve it shortly. Please not
olace an order, it will not have been processed at this time. Pl
later.

We apologise for the inconvenience.

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We're working on it and we'll get it fixed as soon as we can.

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Netflix
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Follo

We're aware that some members are experiencing issues streaming movies and TV shows. We're working to resolve the problem.

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Deployment is Risky

Deployment Tips

- Deployable Artifacts
- Repeatable Builds
- Consistent Environments
- Autonomous Packages
- Ease to-do/un-do Releases

Deployable Artifacts

- Executable
- Easy to execute

```
                print "ncfiles: Socket error (%s) for host %s (%s)" % (err
for h3 in page.findAll("h3"):
    value = (h3.contents[0])
    if value != "Afdeling":
        print >> txt, value
        import codecs
        f = codecs.open("alle.txt", "r", encoding="utf-8")
        text = f.read()
        f.close()
        # open the file again for writing
        f = codecs.open("alle.txt", "w", encoding="utf-8")
        f.write(value+"\n")
        # write the original contents
```

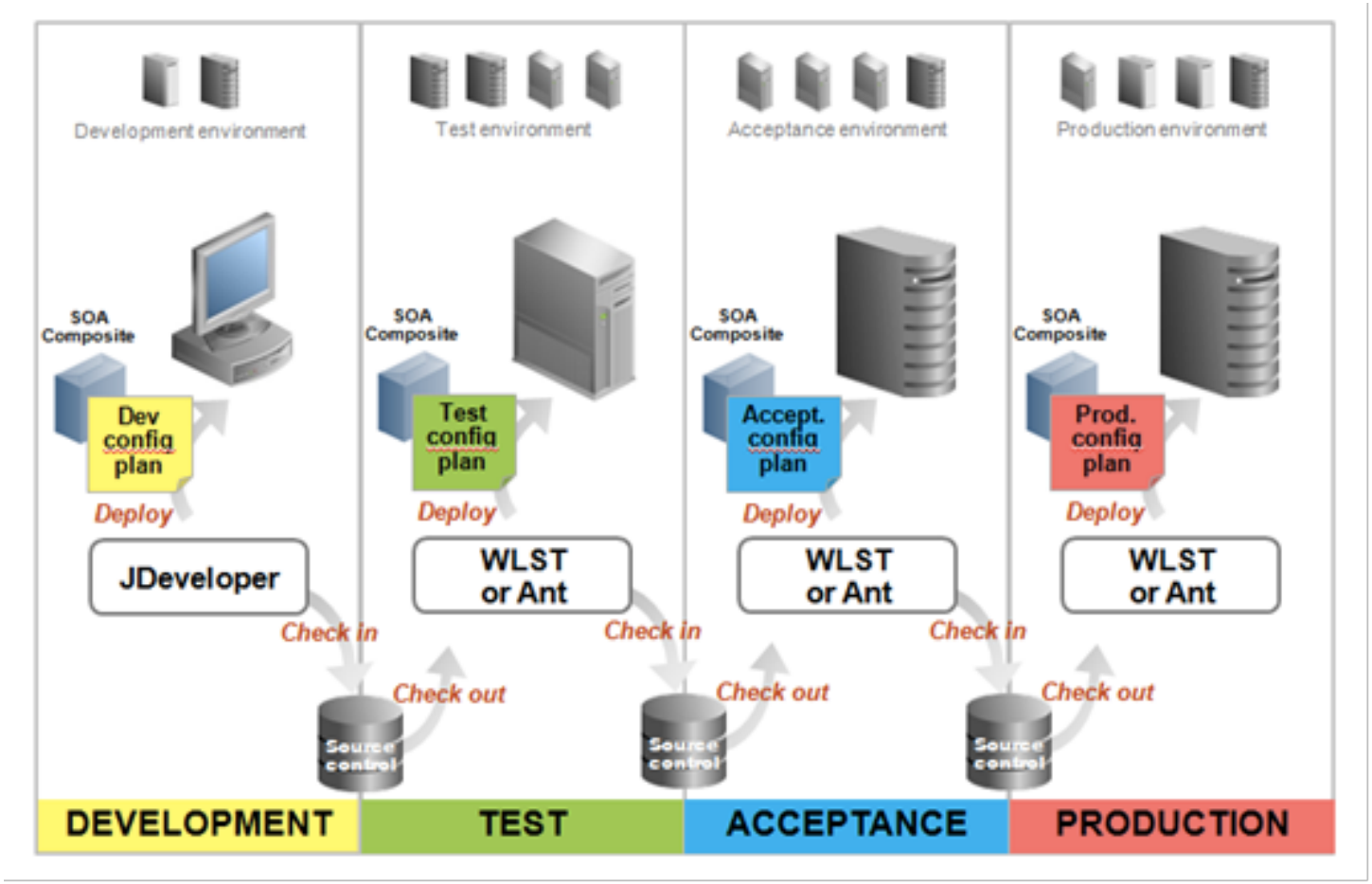
Repeatable Builds

- One should have the provision of rebuilding the application exactly in the same way as it was built at the time of release
  - Same dependencies
  - Same versions

- IDEs do not work
- Use a build tool

Consistent Environment

- An environment includes all the components needed to build and run the application



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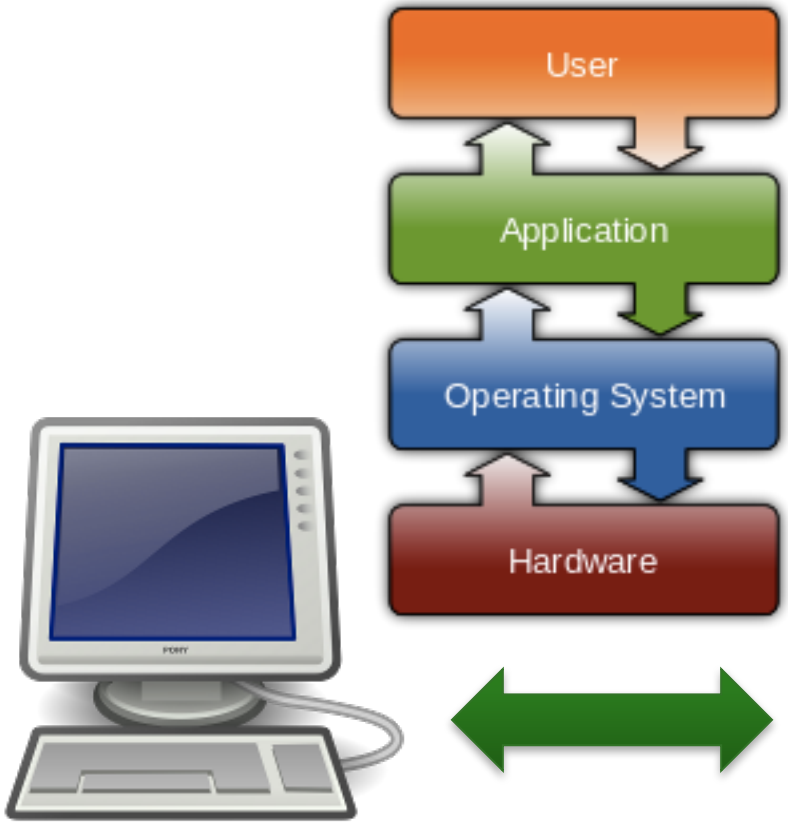
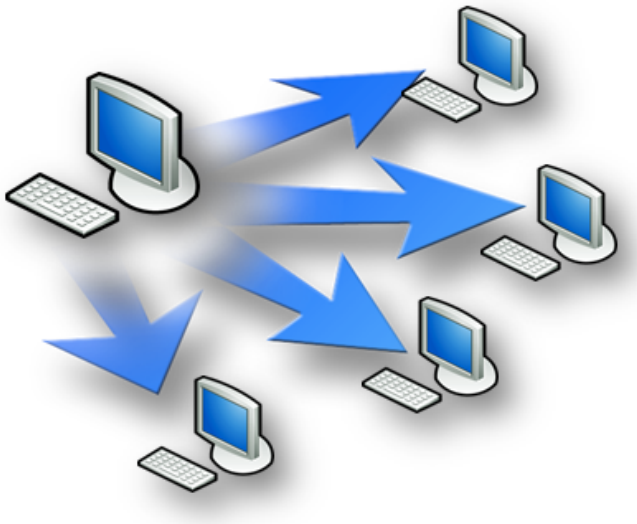
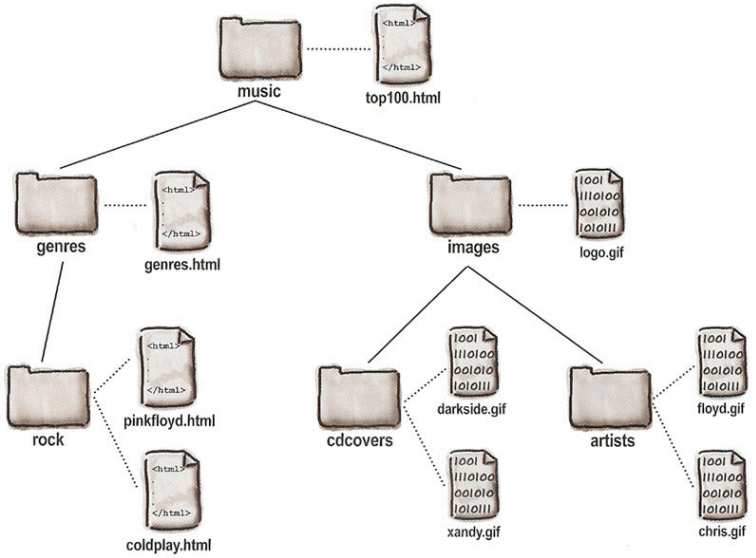


Autonomous Packages

- Autonomous Packages means the deployable package should exist independently
- The more autonomous the deployable package is the more easier to deploy and maintain.





Easy Todo/Undo/Redo

- Ensure software releases can be easy to
  - Install
  - Uninstall
  - Rollback