Introduction to Software Business Product Management

- **Week 3 Day 2**
- Led by: Emily Crose
- for
- Oakland University

REVIEW OF DAY 1

QUESTIONS FROM DAY 1?

TERMS TO LISTEN FOR

Interface/UI

- Visual elements of our application

UX (User Experience)

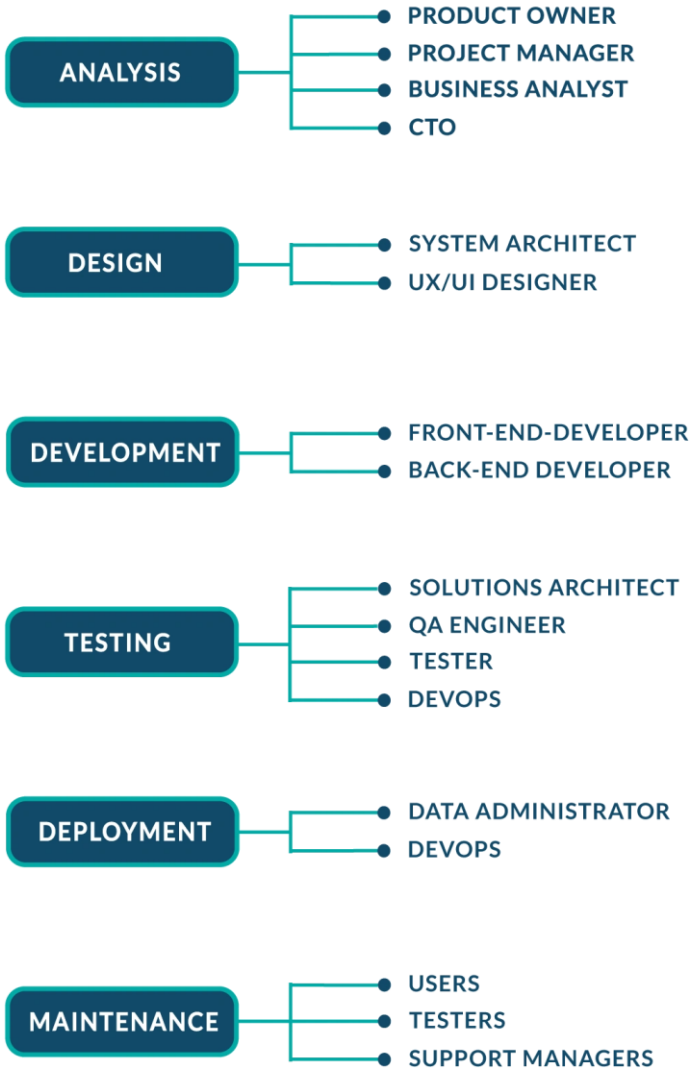
- Functionality of the app and its features

Topology

- Network architecture diagram

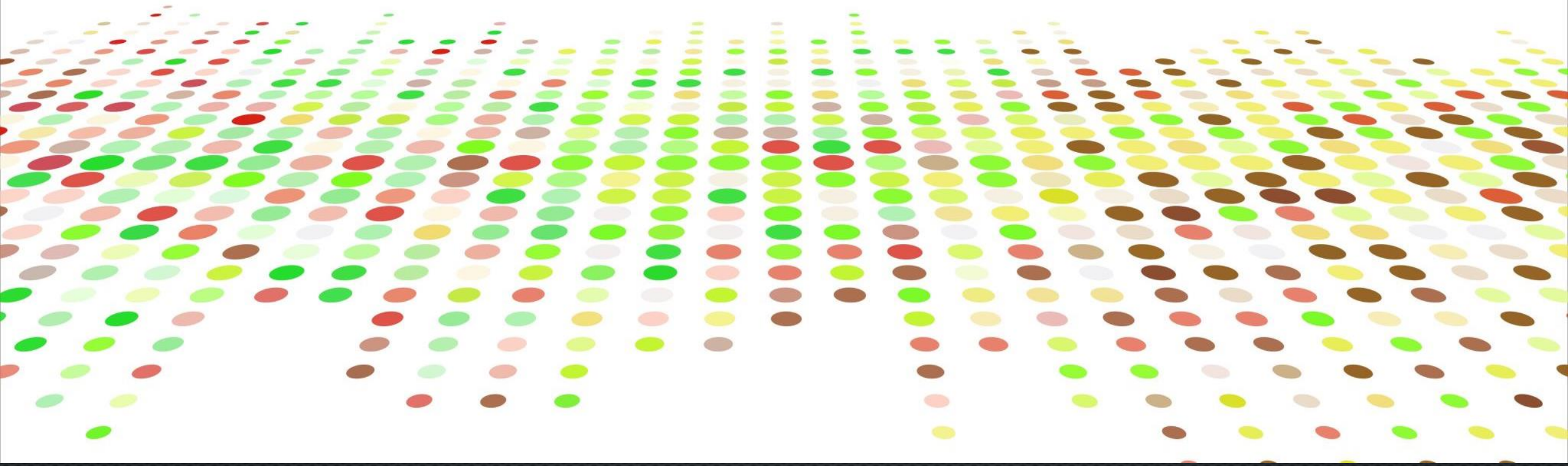
THE SOFTWARE DEVELOPMENT LIFE CYCLE CONTINUED

SDLC Phases


ANALYSIS
PRODUCT OWNER
PROJECT MANAGER
BUSINESS ANALYST
CTO
DESIGN
SYSTEM ARCHITECT
UX/UI DESIGNER
DEVELOPMENT
FRONT-END-DEVELOPER
BACK-END DEVELOPER
TESTING
SOLUTIONS ARCHITECT
QA ENGINEER
TESTER
DEVOPS
DEPLOYMENT
DATA ADMINISTRATOR
DEVOPS
MAINTENANCE
USERS
TESTERS
SUPPORT MANAGERS

WE'VE DECIDED TO MAKE SOME SOFTWARE!

(NOW WHAT?)

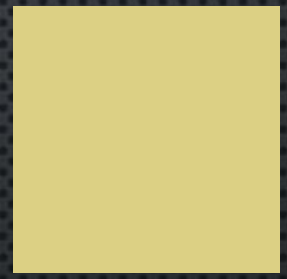


DESIGN STAGE

DESIGN ROLES

System architect

UX Designer



UI Designer

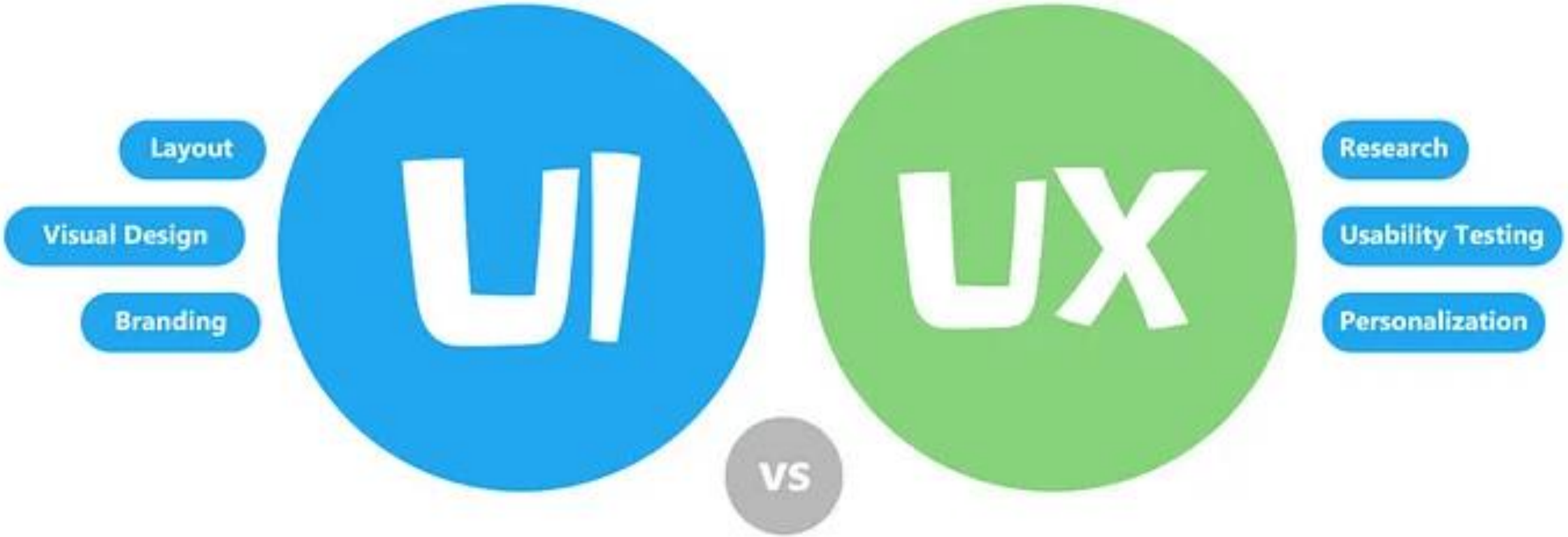
DESIGN ACTIVITIES

UX MOCKUPS

DATABASE REQUIREMENTS

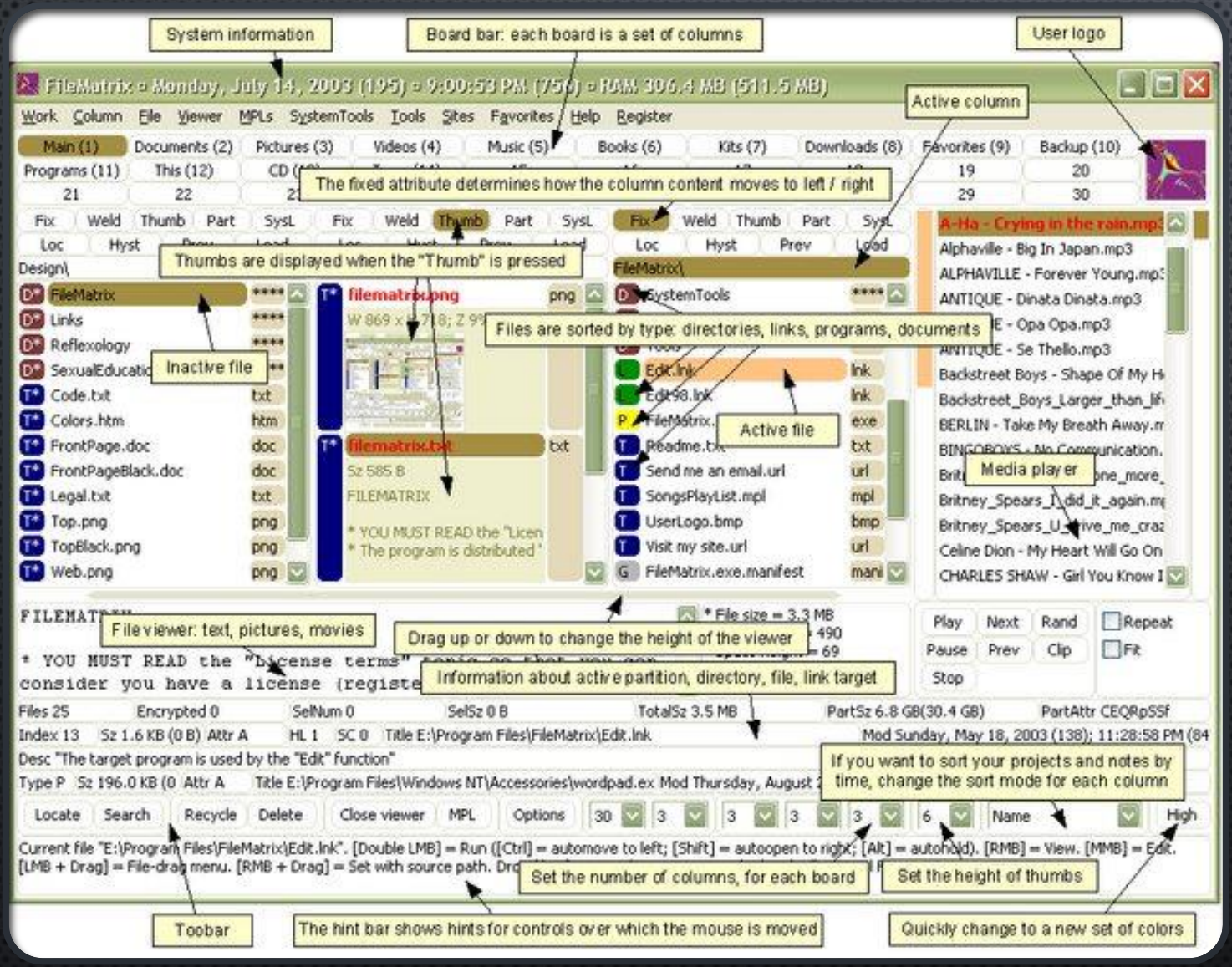
PROTOTYPING

VISUALS

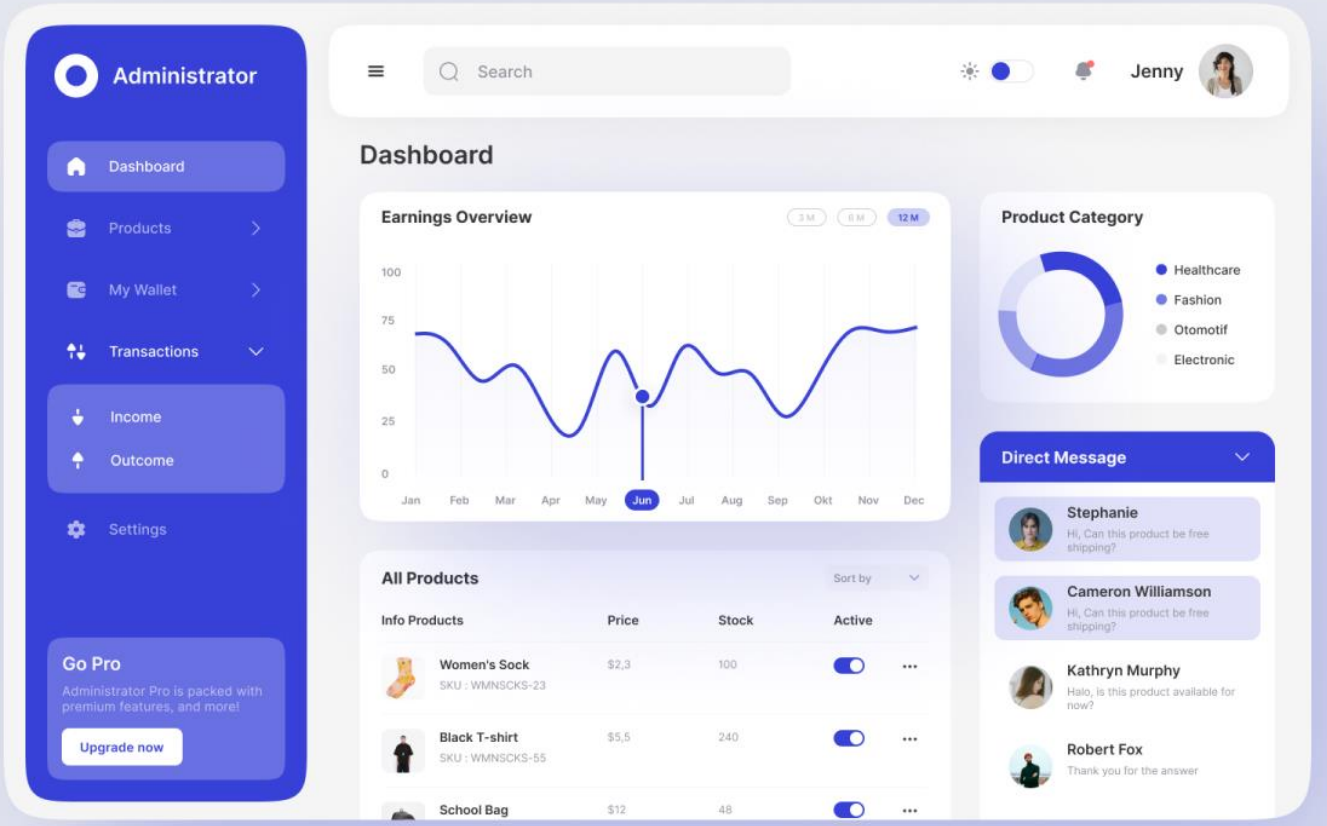

Layout
Visual Design
Branding
UI
VS
UX
Research
Usability Testing
Personalization

UI & UX

BRANDING


System information
Board bar: each board is a set of columns
User logo
Active column
The fixed attribute determines how the column content moves to left / right
Thumbs are displayed when the "Thumb" is pressed
Files are sorted by type: directories, links, programs, documents
Inactive file
Active file
Media player
File viewer: text, pictures, movies
Drag up or down to change the height of the viewer
Information about active partition, directory, file, link target
If you want to sort your projects and notes by time, change the sort mode for each column
Set the number of columns, for each board
Set the height of thumbs
Toobar
The hint bar shows hints for controls over which the mouse is moved
Quickly change to a new set of colors

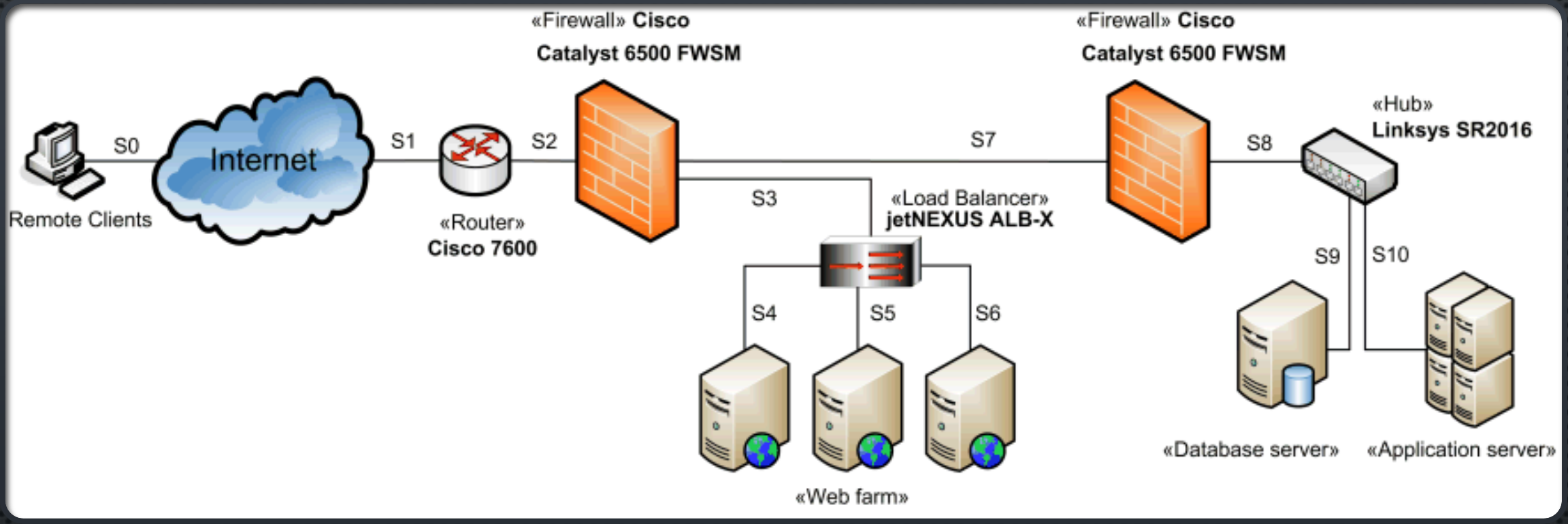
CURSED UI



MINIMALIST UI

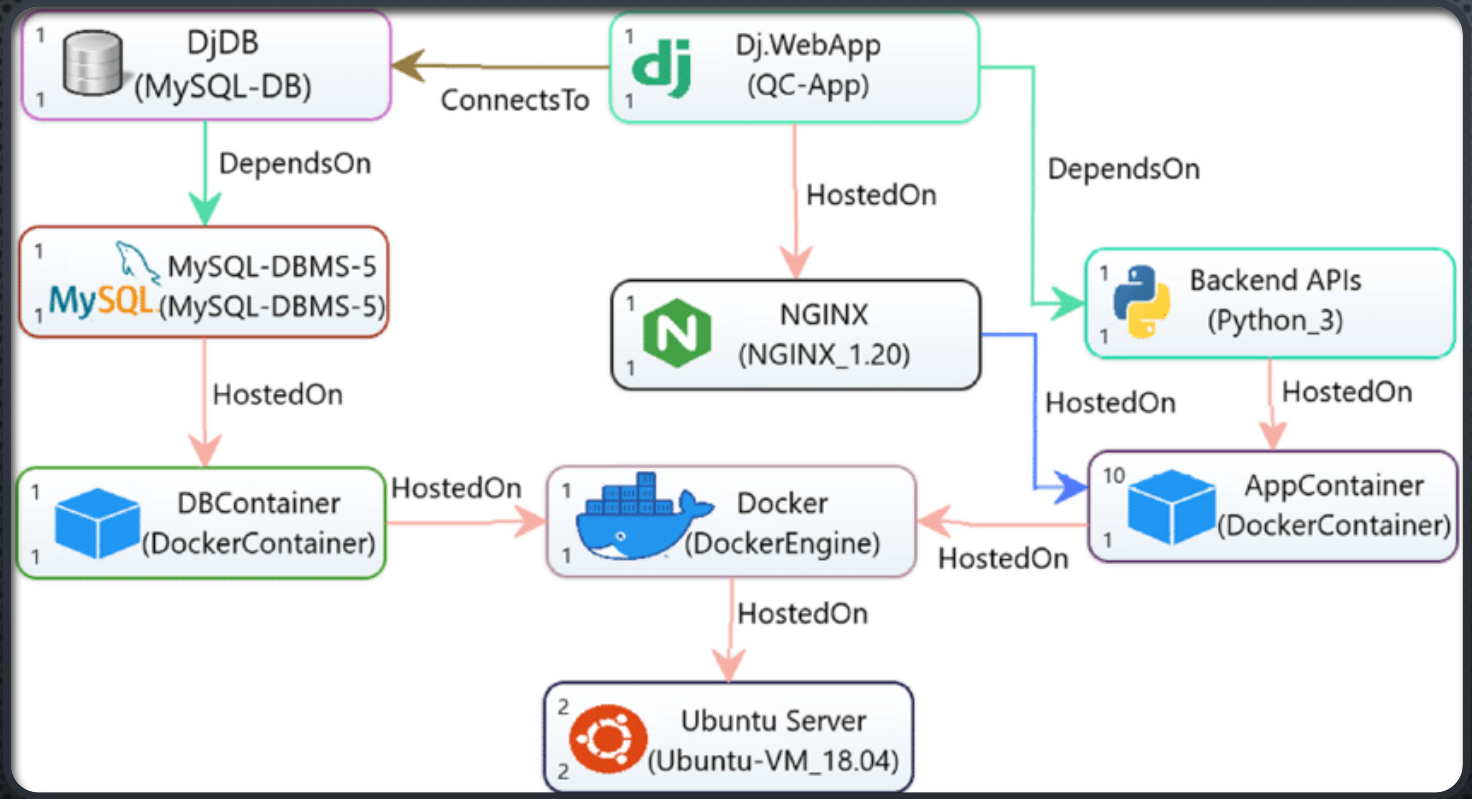

10 MINUTE BREAK

ARCHITECTURE & DEPENDENCIES



NETWORK TOPOLOGY

DEPENDENCY DIAGRAM



DEVELOPMENT STAGE

DEVELOP PHASE ACTIVITIES

Development phase activities cont'

- Building information sources
  - Back-end databases
  - Build feeds for ongoing information transfer
- Building information consumers
  - Fed components of app

CONSIDERATION: PUSH, OR PULL?

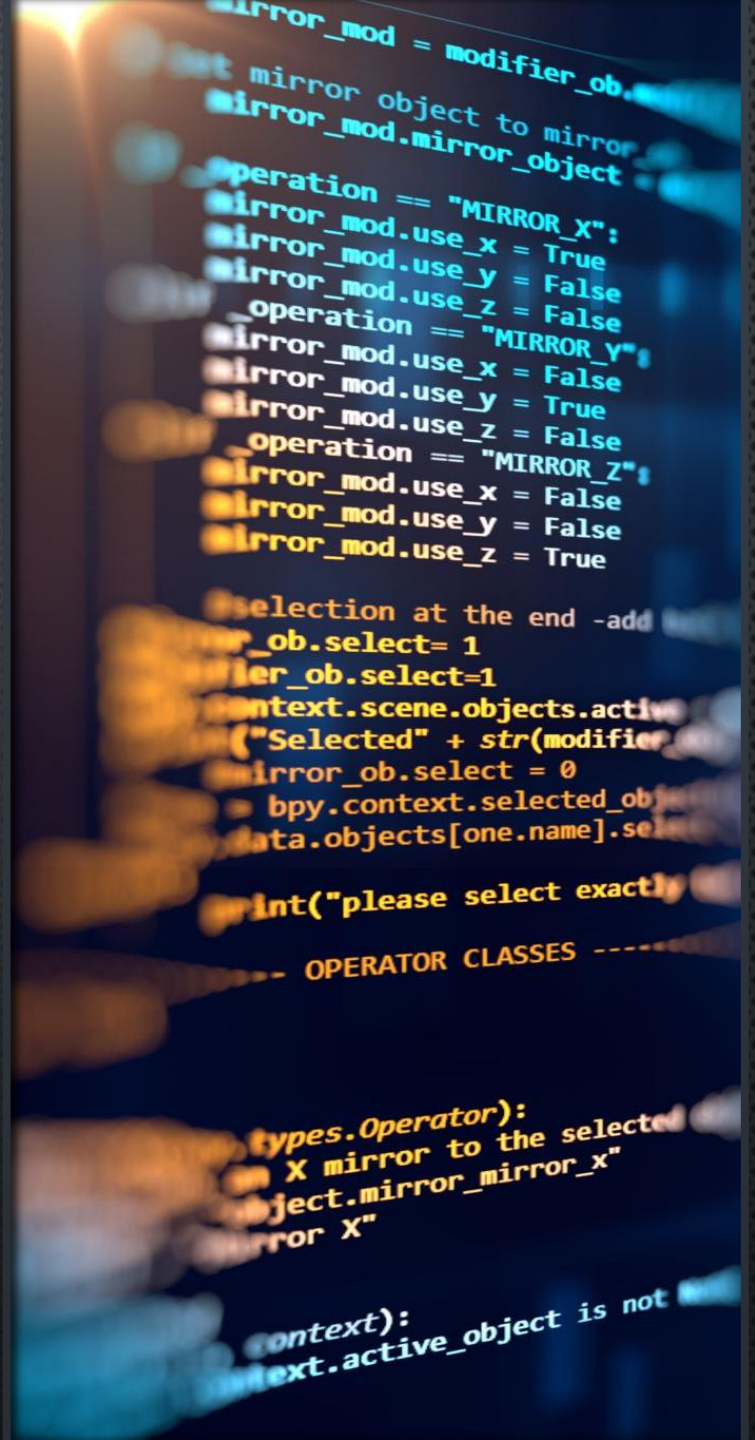
DEVELOPER ROLES

Front-End Developer

Back-End Developer

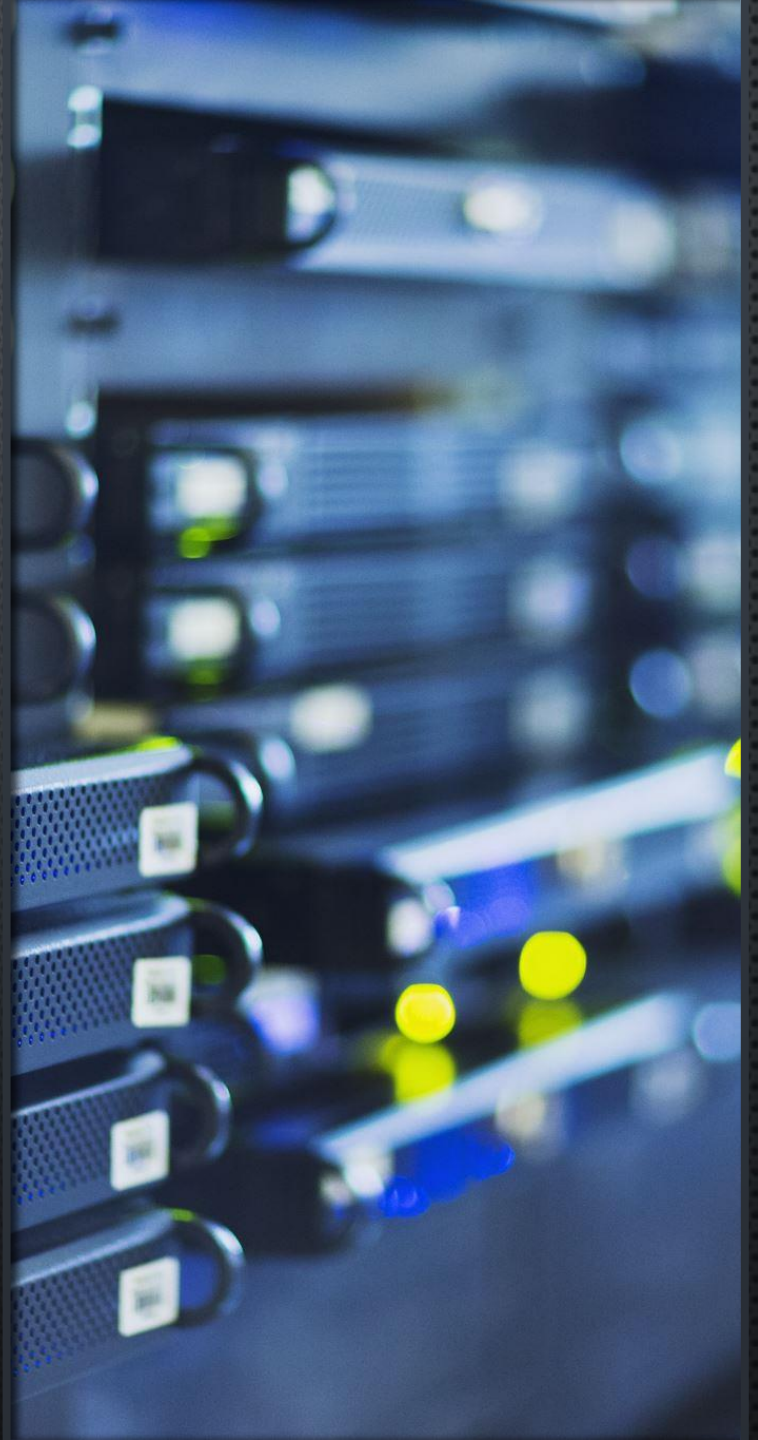
FRONT-END DEVELOPERS

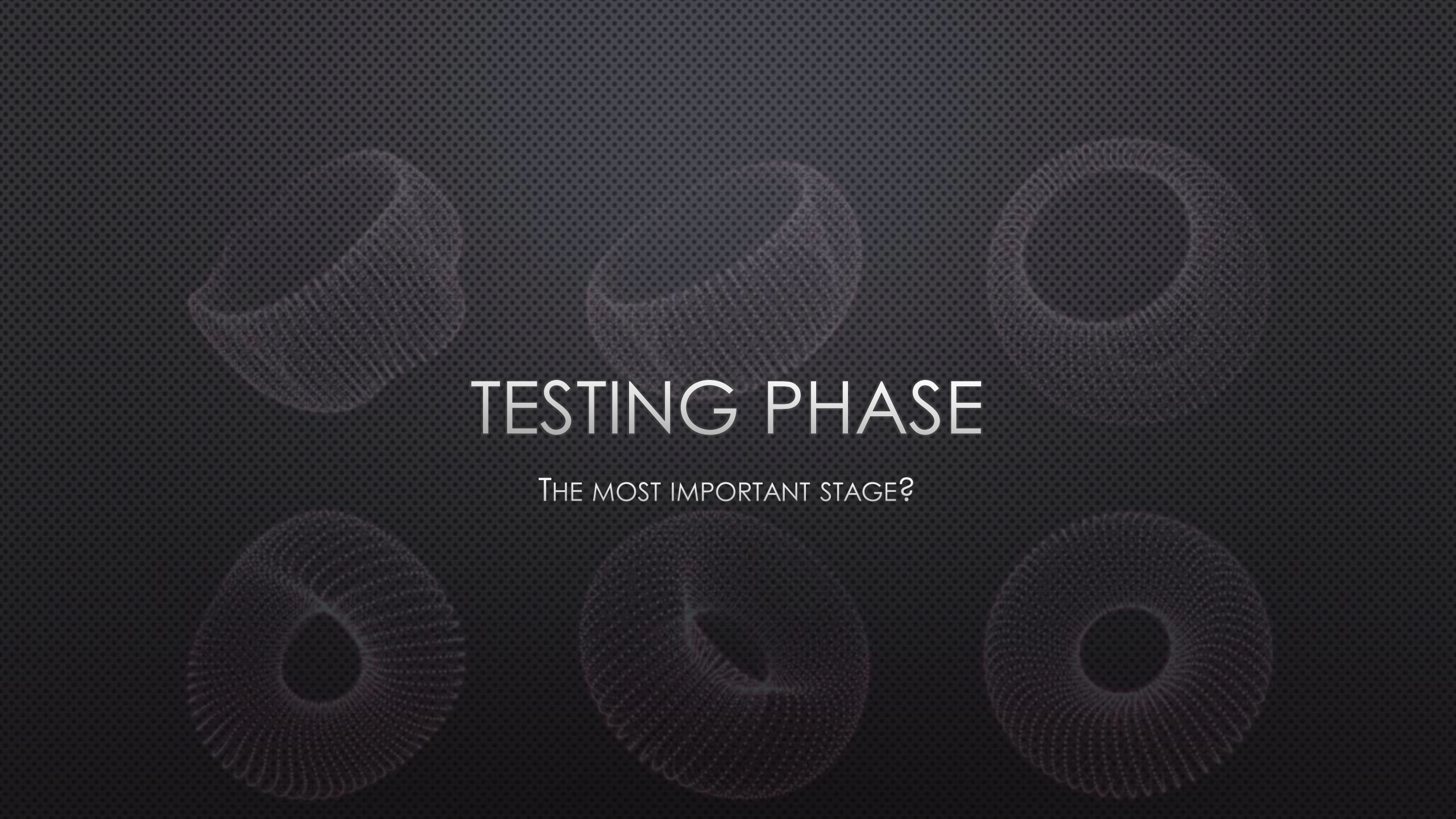
- DEAL WITH UI/UX PROBLEM SOLVING
  - WORK WITH VISUAL PROGRAMMING LANGUAGES
- DESIGN INTEGRATION MODULES TO ATTACH TO BACK-END INFORMATION SOURCES



Back-end developers

- Work with data distribution
  - Database administrators
  - System Engineers
- Availability is key!
- Are data Scientists needed?



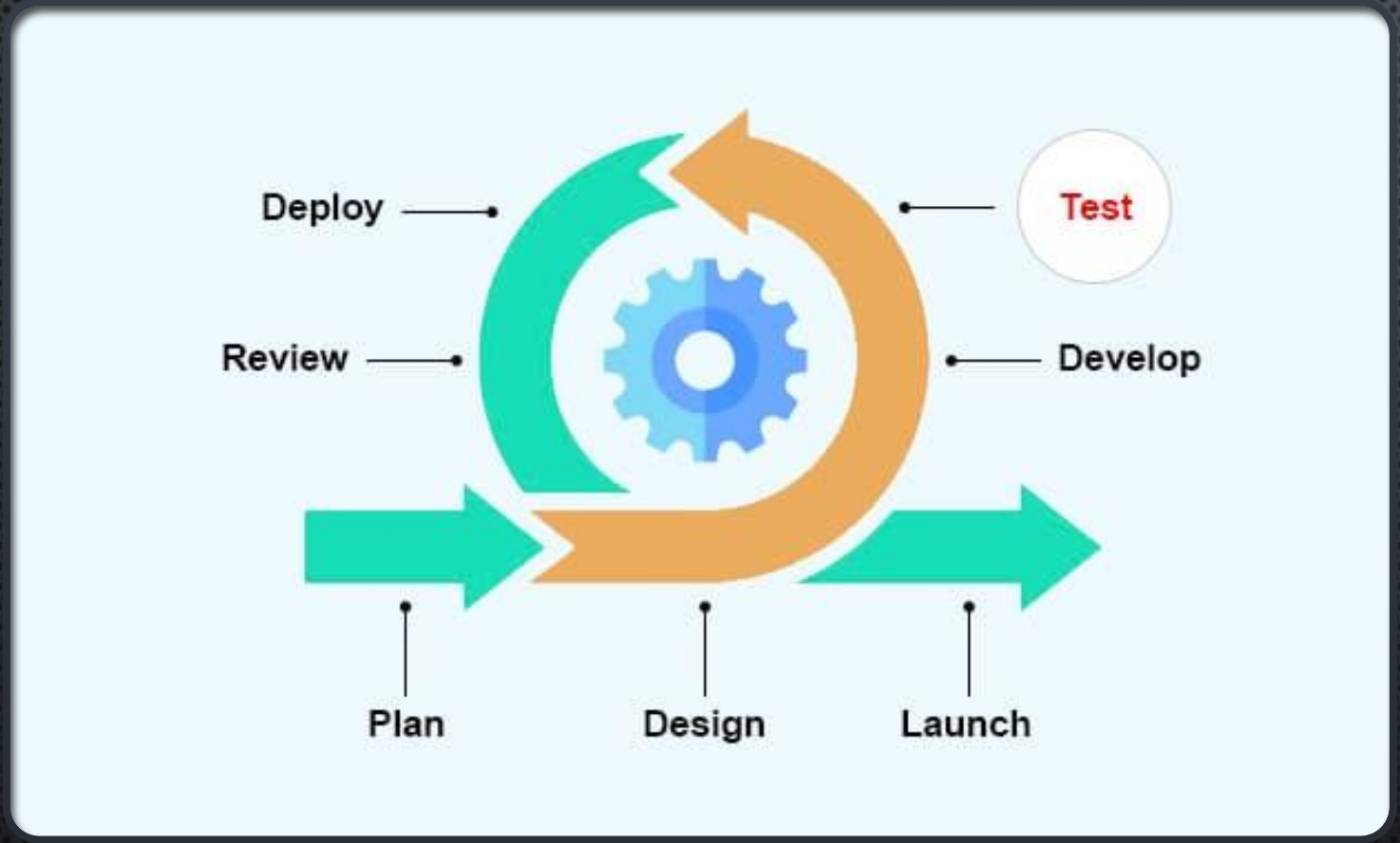

TESTING PHASE
THE MOST IMPORTANT STAGE?

TESTING ROLES

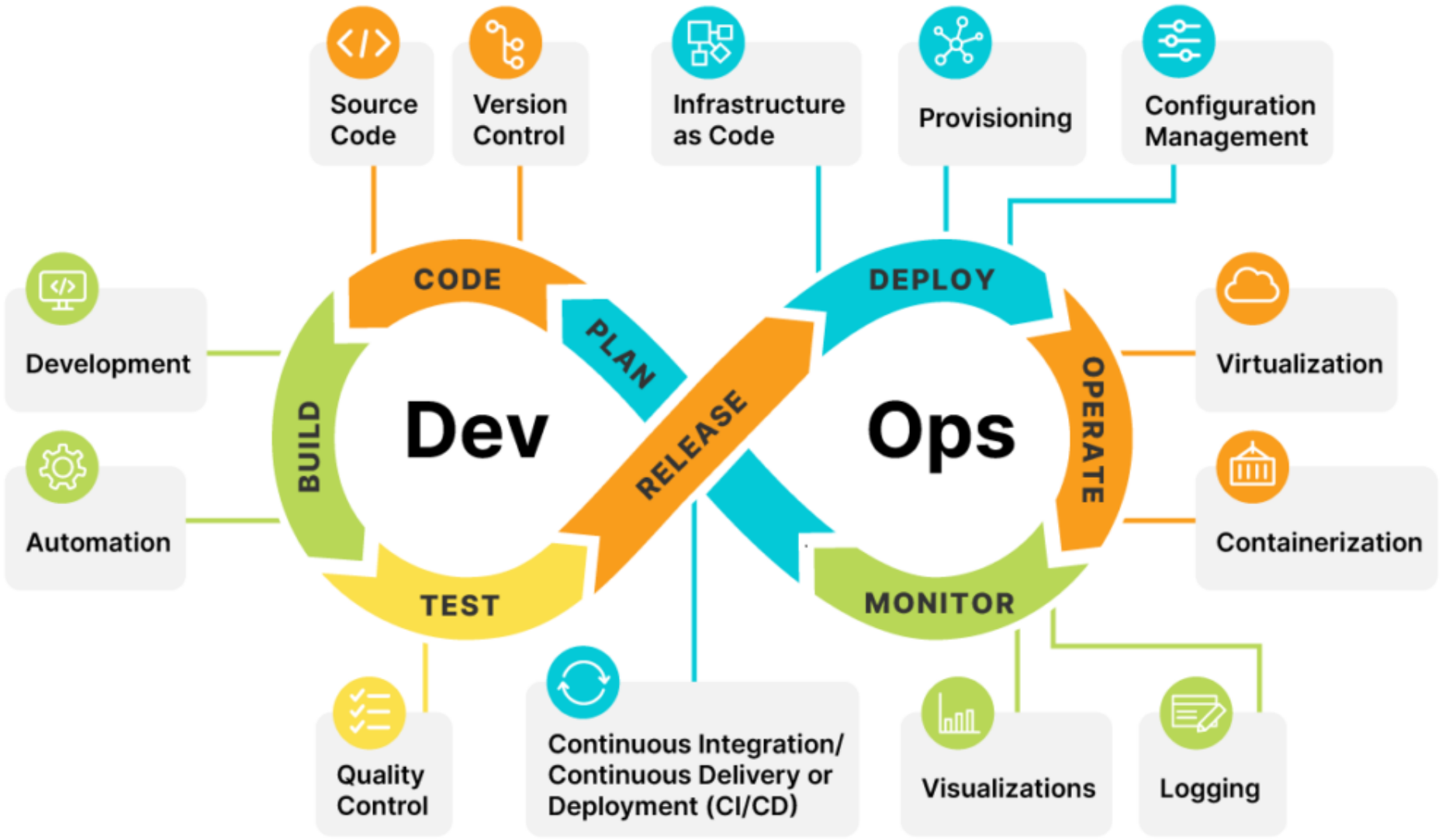
- Solutions Architect
- Quality Assurance Engineer
- Software Tester
- DEVOPS

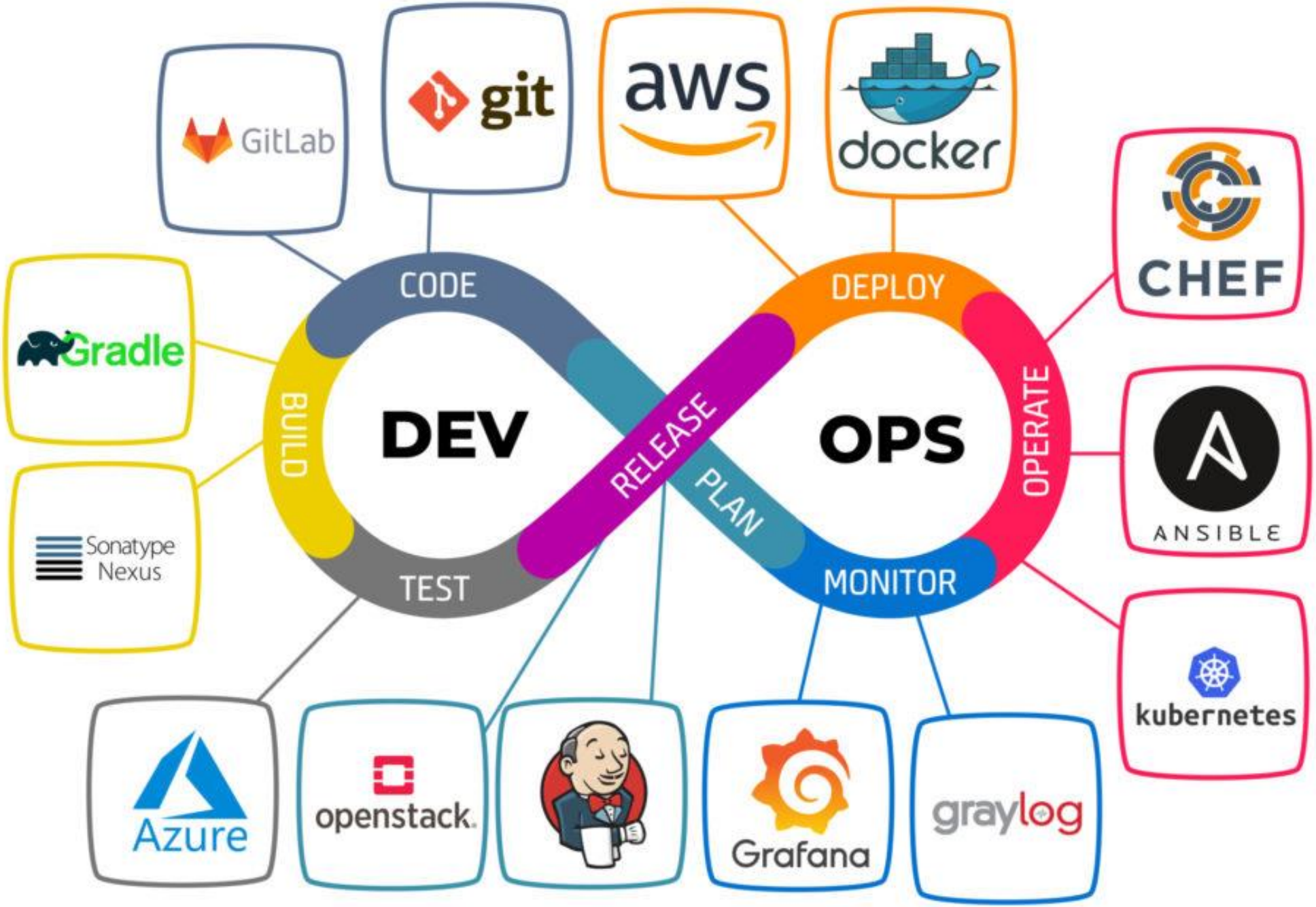

10 MINUTE BREAK

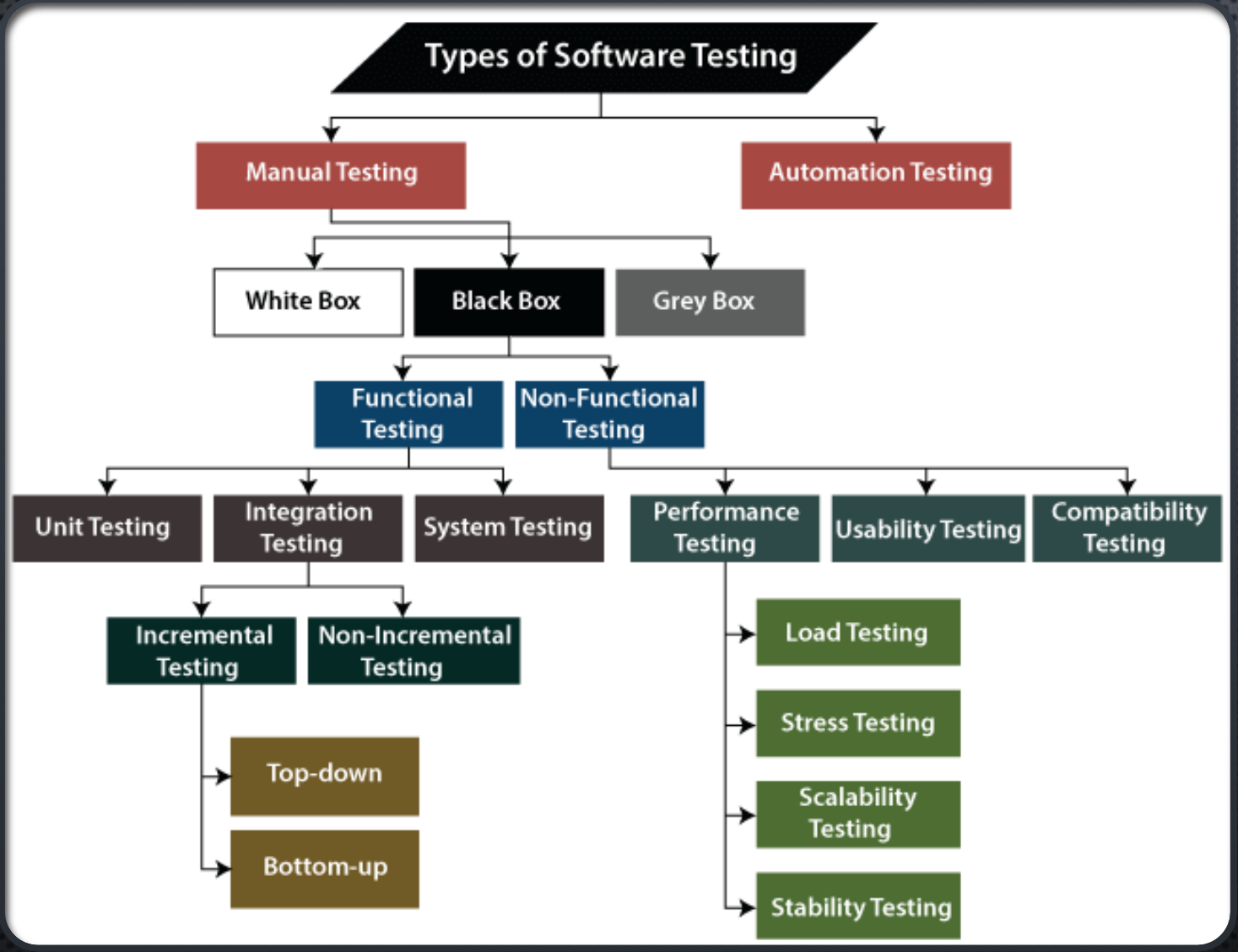
WHAT IS DEVOPS??



A DIFFERENT WAY TO LOOK AT THE SDLC

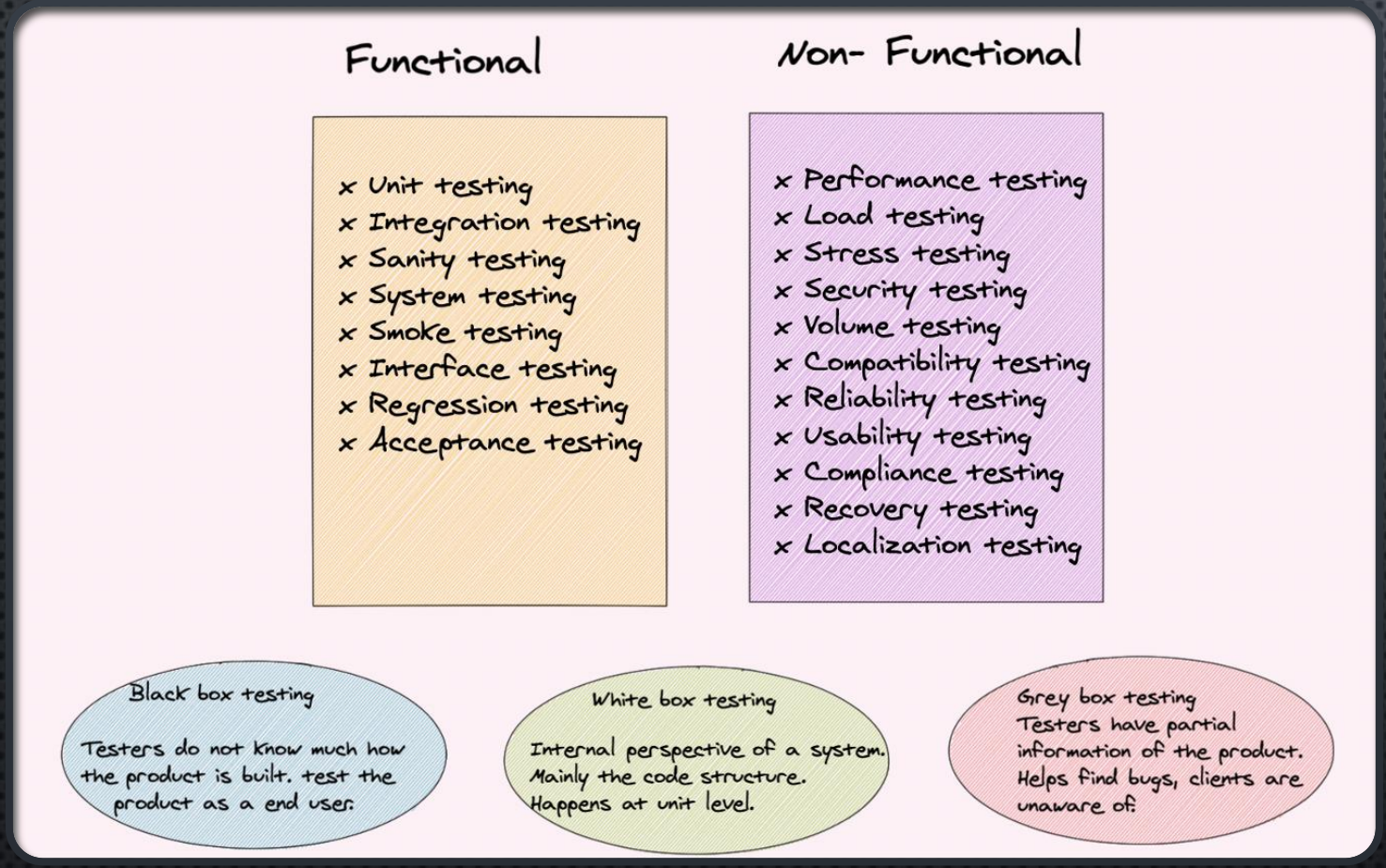

Source Code
Version Control
Infrastructure as Code
Provisioning
Configuration Management
Development
Automation
CODE
PLAN
BUILD
Dev
RELEASE
Ops
DEPLOY
OPERATE
TEST
MONITOR
Virtualization
Containerization
Quality Control
Continuous Integration/ Continuous Delivery or Deployment (CI/CD)
Visualizations
Logging


GitLab
git
aws
docker
CHEF
Gradle
CODE
DEPLOY
BUILD
DEV
RELEASE
PLAN
OPS
OPERATE
ANSIBLE
Sonatype Nexus
TEST
MONITOR
kubernetes
Azure
openstack
Grafana
graylog



TESTING STAGE ACTIVITIES

FUNCTIONAL VS NON-FUNCTIONAL TESTING



WHY IS TESTING SO IMPORTANT?

PRE-RELEASE

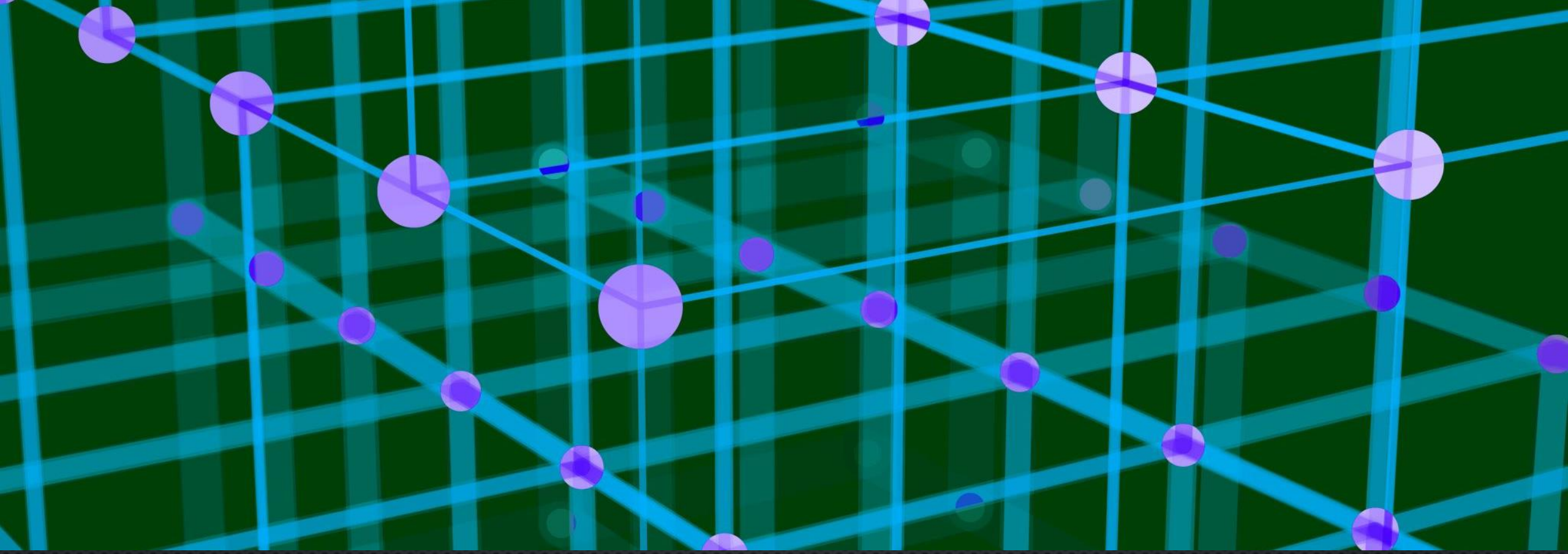
EASY TO FIX PROBLEMS FOUND

DISCOVERY OF MISSING PIECES

REVIEW ASSUMPTIONS


Solutions
Business
Success
Sales
Growth
Strategy
Business
Solutions
Success
Sales
Growth
Strategy
Solutions

OUTCOMES



DEPLOYMENT PHASE

Deployment Questions

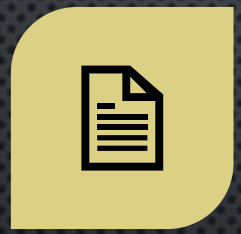
- How will our users get this app?
  - App store?
  - Direct download/sideloading?
- How will users get future updates?

DEPLOYMENT ROLES

- DATA ADMINISTRATOR
- DEVOPS

DEPLOYMENT ACTIVITIES

FINAL TESTING STEPS



INITIAL DOCUMENTATION PHASE

MAKING SOFTWARE PACKAGE AVAILABLE TO CUSTOMERS

CUSTOMIZATION AND DEVELOPMENT TESTING

INSTALLATION TO STAGING SERVERS

DOCUMENTATION
DOCUMENTATION
DOCUMENTATION

USER ACCEPTANCE TESTING

MAINTENANCE PHASE

MAINTENANCE ROLES

Users

Testers

Support managers

Field Support Engineers

Maintenance activities

- Break/fix
- Product support
- Demonstration/Field support

COMMUNICATION

WHERE ARE OUR “FRONT DOORS”?

THEN WHAT?

REVIEW DAY 2

QUESTION OR CLARIFICATIONS?

PREVIEW DAY 3

SEE YOU NEXT TIME!