

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

Root Cause Analysis (RCA)

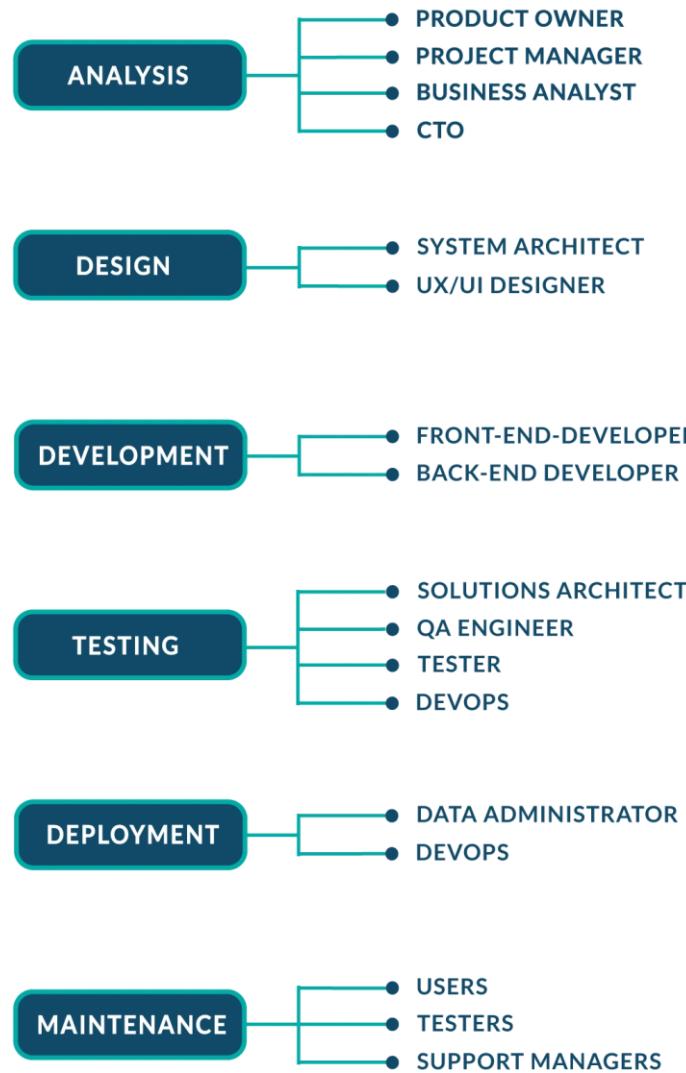
- An evaluation of the reasons behind a critical failure

Topology

- Network architecture diagram

THE SOFTWARE DEVELOPMENT LIFE CYCLE CONTINUED

SDLC Phases



WE'VE DECIDED TO MAKE
SOME SOFTWARE!

(Now WHAT?)

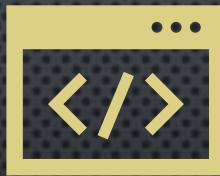


DESIGN STAGE

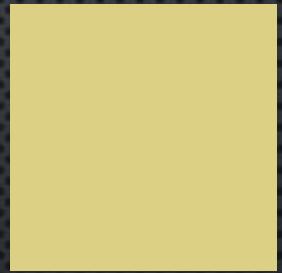
DESIGN ROLES



System architect



UX Designer



UI Designer

DESIGN ACTIVITIES



UX MOCKUPS



DATABASE
REQUIREMENTS



PROTOTYPING



VISUALS

Layout

Visual Design

Branding

Research

Usability Testing

Personalization

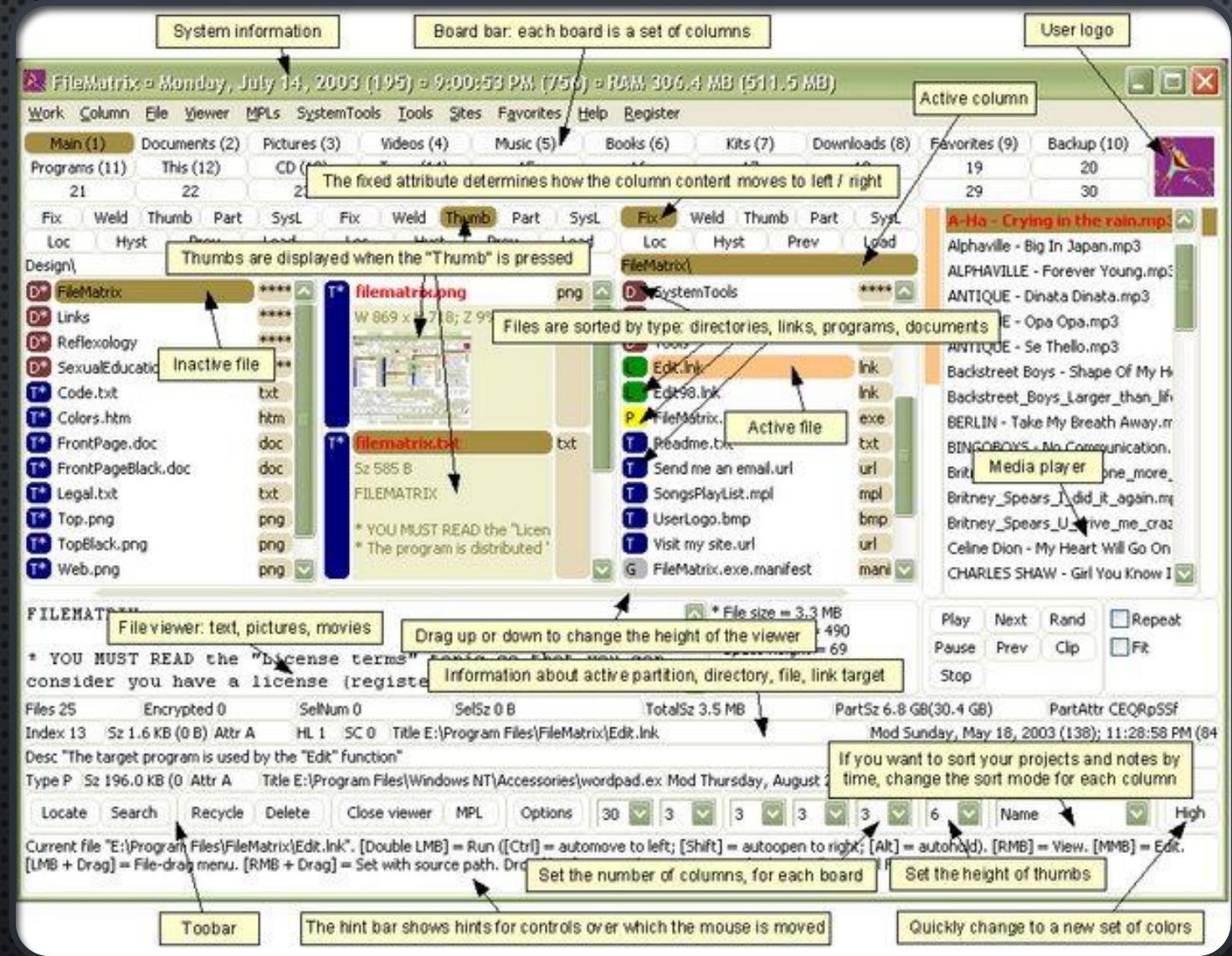


UI & UX



BRANDING

CURSED UI



MINIMALIST UI

Administrator

Dashboard

Products >

My Wallet >

Transactions

Income

Outcome

Settings

Go Pro

Administrator Pro is packed with premium features, and more!

Upgrade now

Earnings Overview

Search

3 M 8 M 12 M

Jenny

Dashboard

All Products

Info Products Price Stock Active

Info Products	Price	Stock	Active
Women's Sock	\$2,3	100	On
SKU : WMNSCKS-23			
Black T-shirt	\$5,5	240	On
SKU : WMNSCKS-55			
School Bag	\$12	48	On

Sort by

Product Category

- Healthcare
- Fashion
- Otomotif
- Electronic

Direct Message

Stephanie Hi, Can this product be free shipping?

Cameron Williamson Hi, Can this product be free shipping?

Kathryn Murphy Halo, is this product available for now?

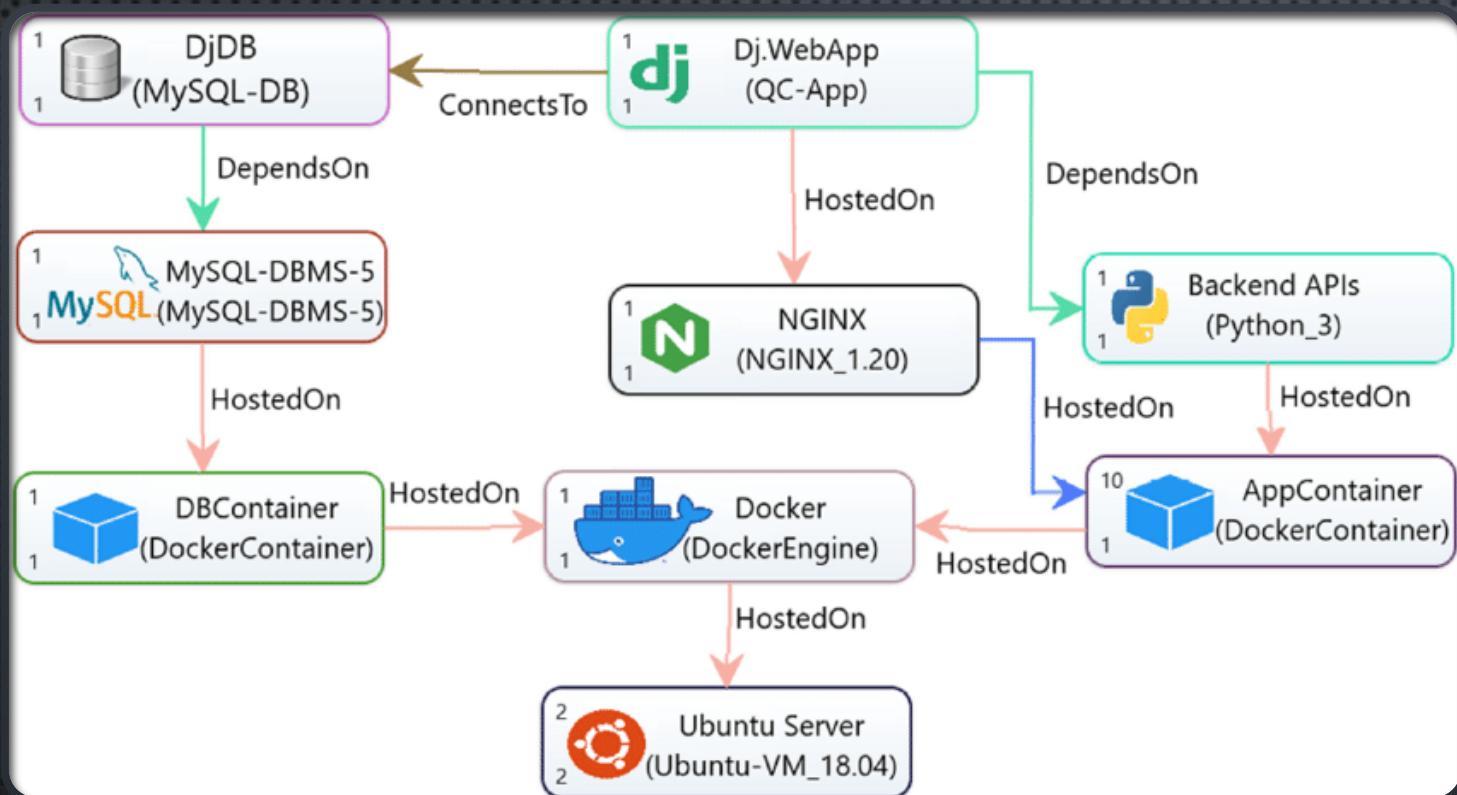
Robert Fox Thank you for the answer

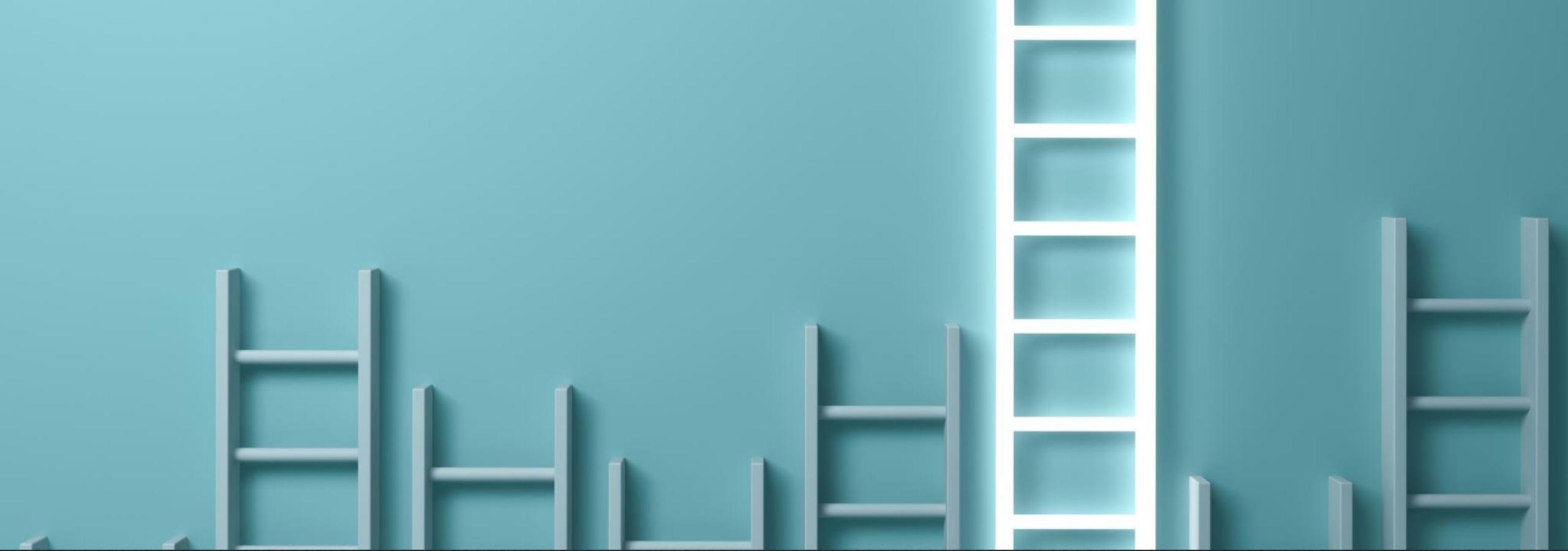


10 MINUTE BREAK

DEPENDENCIES

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?

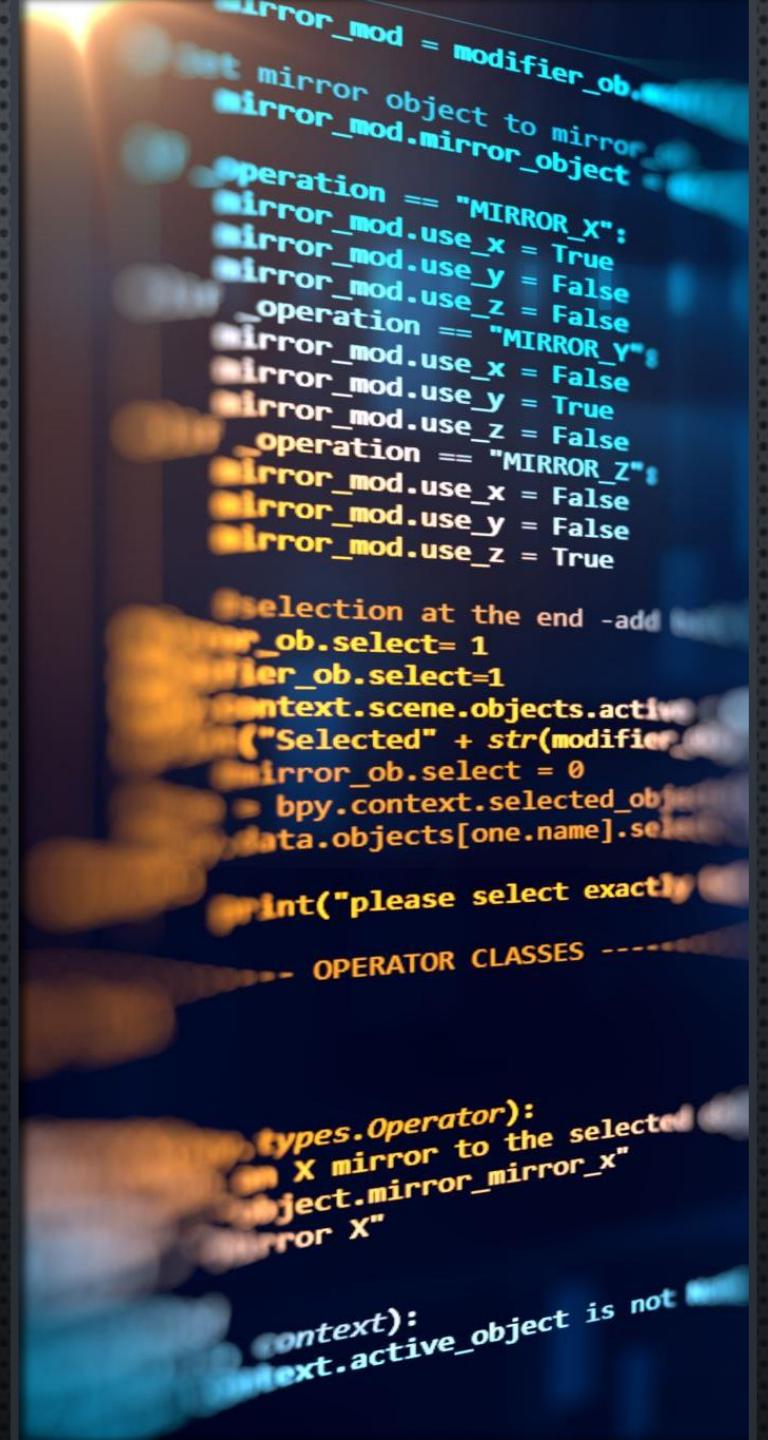
DEVELOPER ROLES

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

A photograph showing a person's hands pointing at a computer monitor. The monitor displays a block of Python code. The code appears to be a script for a 3D modeling application, specifically Blender, based on the use of bpy and context variables. The code handles different mirroring operations (MIRROR_X, MIRROR_Y, MIRROR_Z) and manages object selection. The background is dark, making the white text of the code stand out.

```
mirror_mod = modifier_obj
# mirror object to mirror
mirror_mod.mirror_object

operation == "MIRROR_X":
    mirror_mod.use_x = True
    mirror_mod.use_y = False
    mirror_mod.use_z = False

operation == "MIRROR_Y":
    mirror_mod.use_x = False
    mirror_mod.use_y = True
    mirror_mod.use_z = False

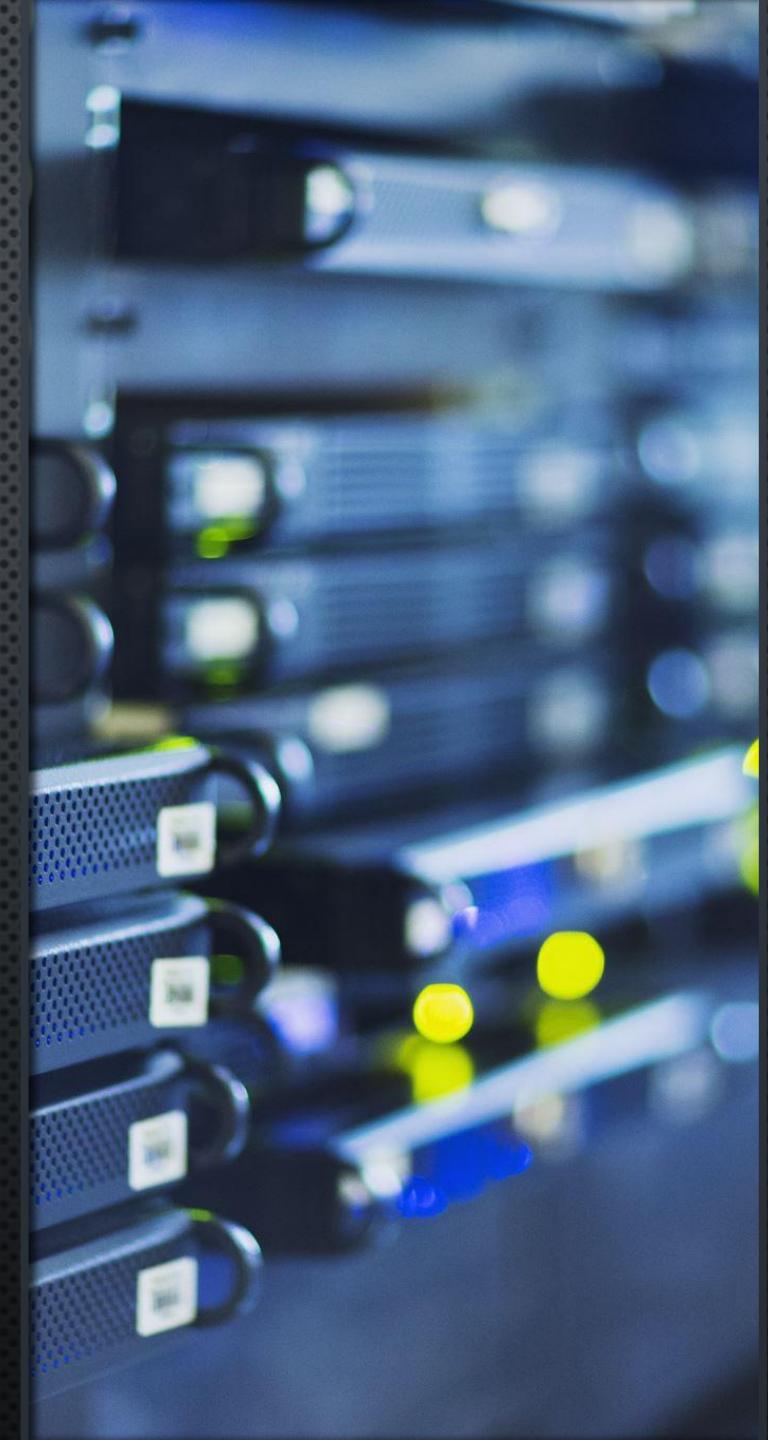
operation == "MIRROR_Z":
    mirror_mod.use_x = False
    mirror_mod.use_y = False
    mirror_mod.use_z = True

selection at the end -add
    ob.select= 1
    mirror_ob.select=1
    context.scene.objects.active
        ("Selected" + str(modifier))
    mirror_ob.select = 0
    bpy.context.selected_objects
        [one.name].select
    print("please select exactly one object")
- OPERATOR CLASSES ---

types.Operator):
    X mirror to the selected
    object.mirror_mirror_x"
    or X"
context):
    context.active_object is not
```

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

QUALITY ASSURANCE

- VALIDATES THAT SPECS ARE BEING MET ACCORDING TO REQUIREMENTS PUT FORTH
- CAN CONDUCT “ROOT CAUSE ANALYSIS” WHEN SOMETHING GOES WRONG

SECURITY TESTING

- PENETRATION TESTING
- DEPENDENCY ANALYSIS
 - SOFTWARE BILL OF MATERIALS (SBOM)
- STATIC CODE ANALYSIS
- FUZZING

FUZZ TESTING

- RANDOMIZED INPUT TESTING

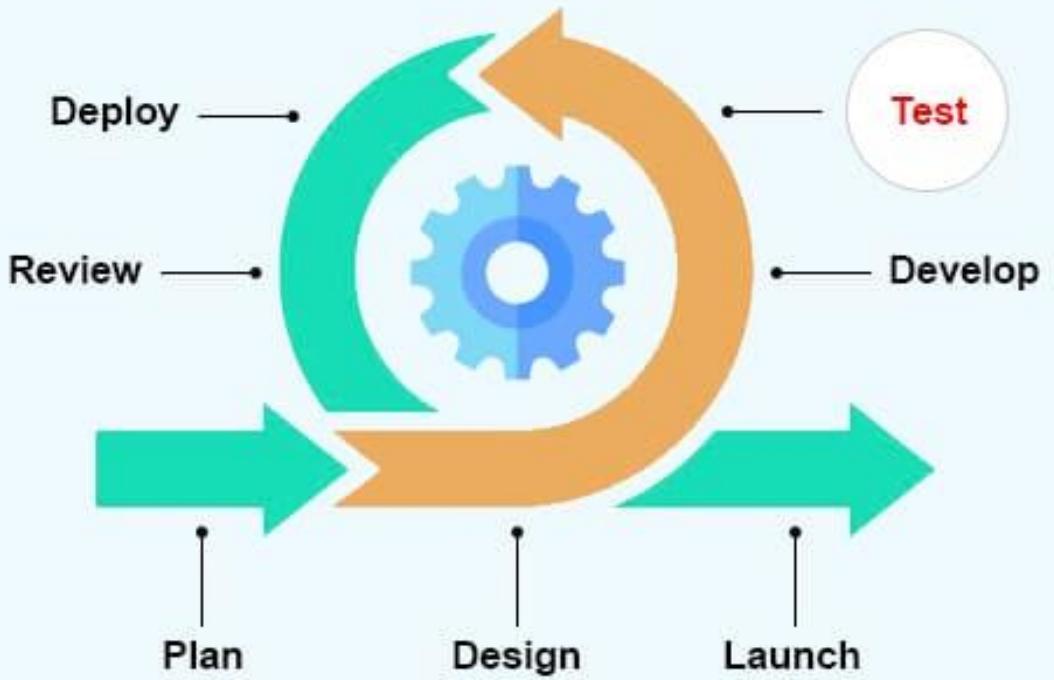


APPLICATION LIFECYCLE MANAGEMENT (ALM)

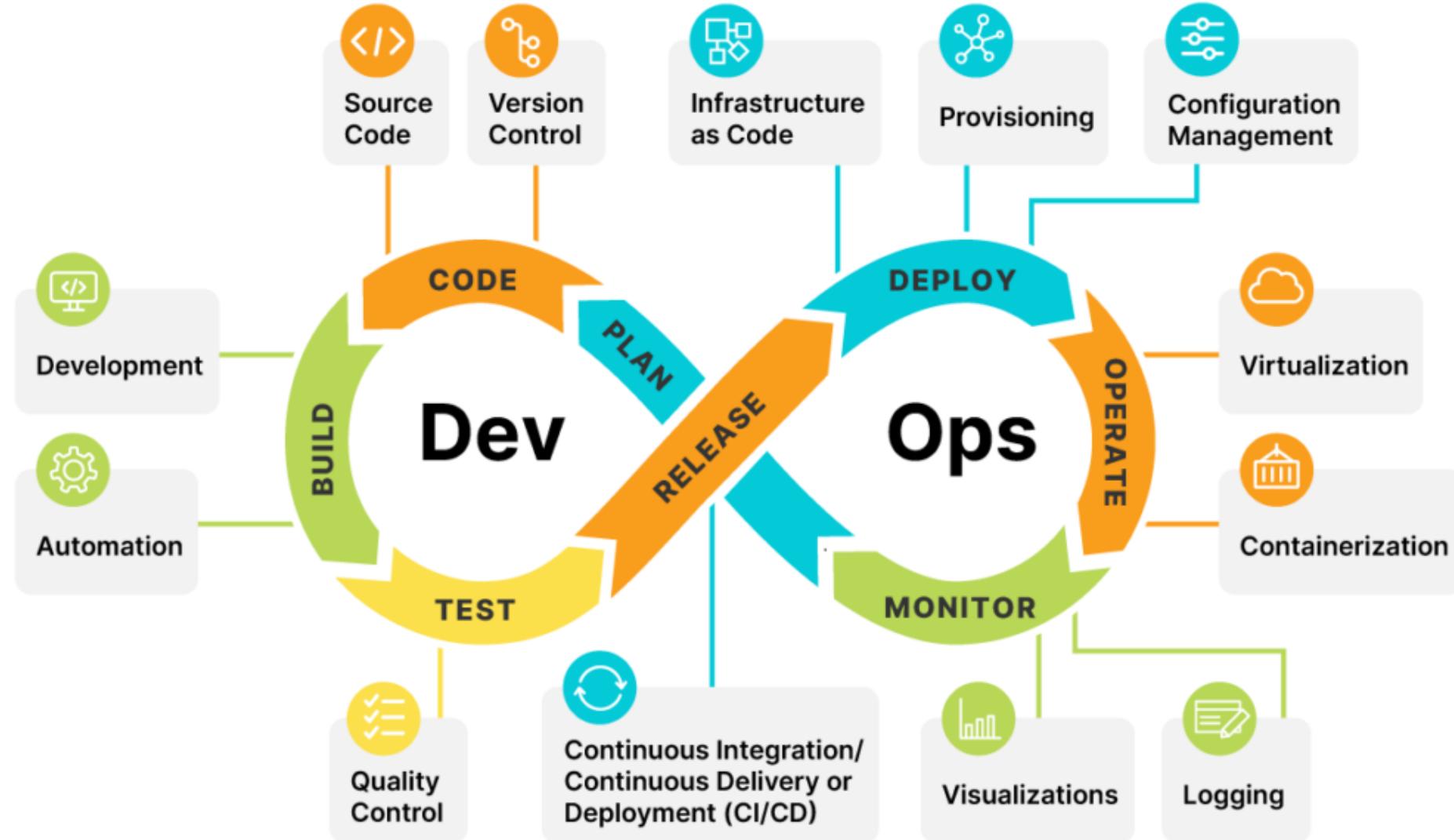


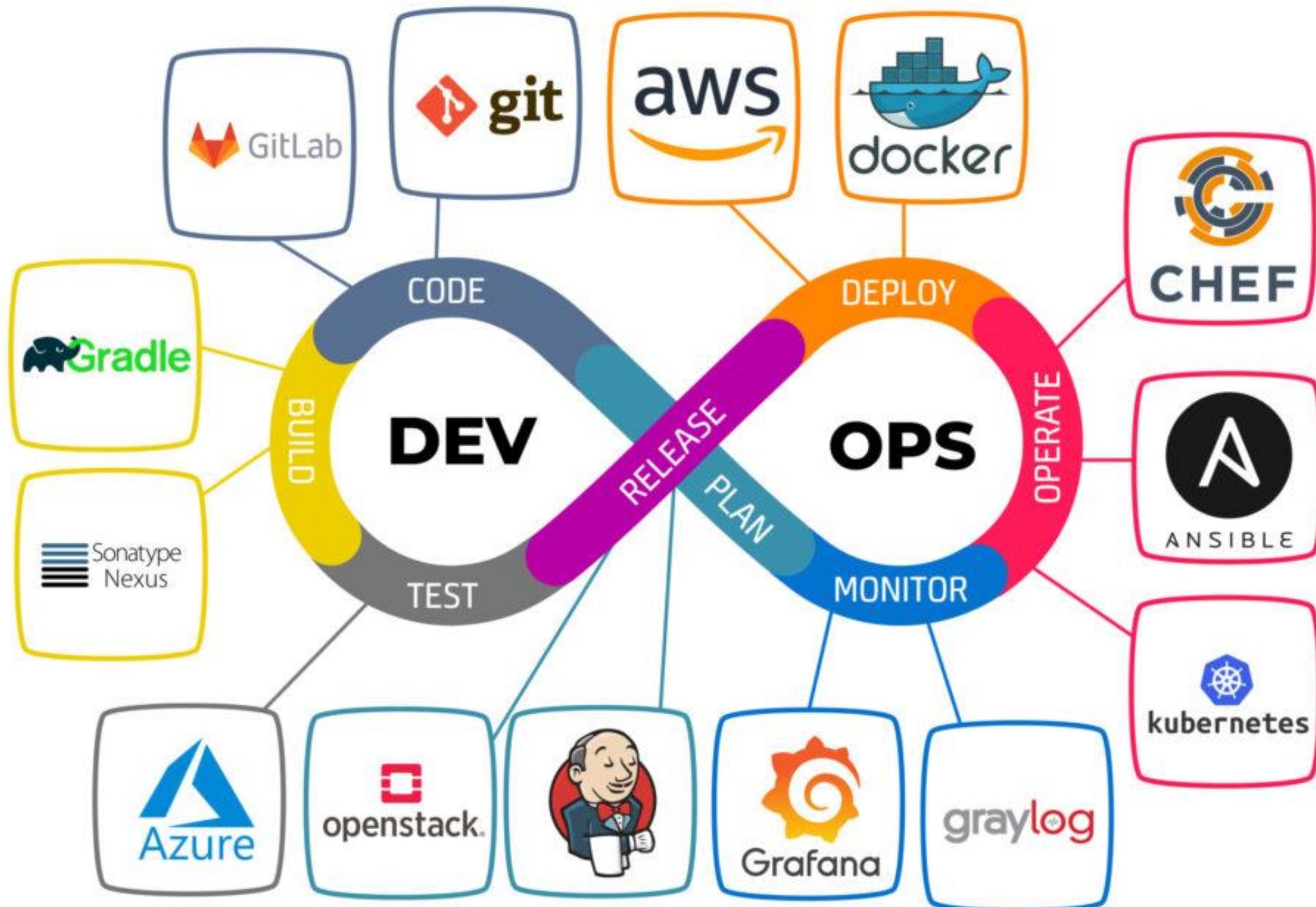
10 MINUTE BREAK

WHAT IS DEVOPS??

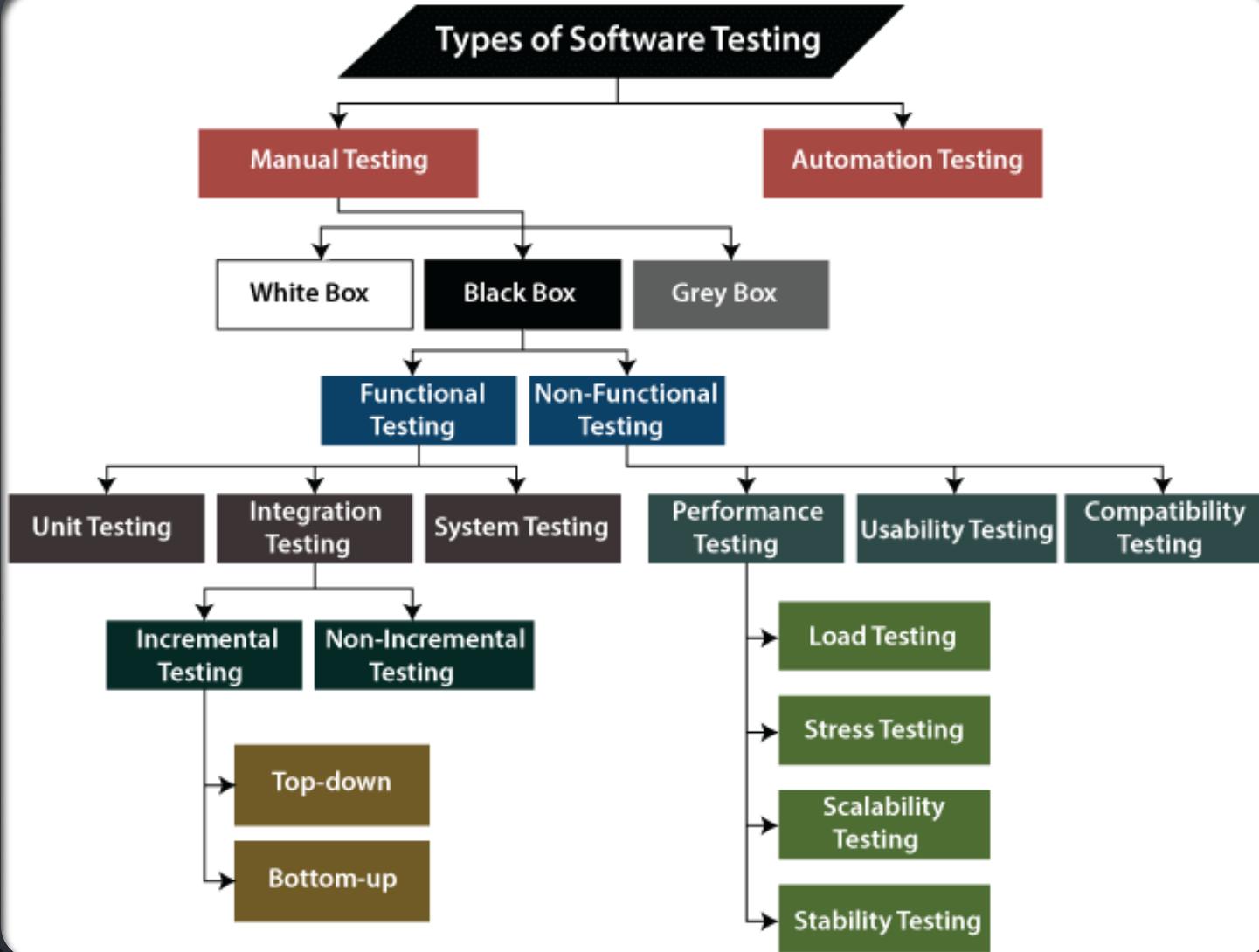


A DIFFERENT
WAY TO
LOOK AT THE
SDLC





TESTING STAGE ACTIVITIES



FUNCTIONAL VS NON- FUNCTIONAL TESTING

Functional

- x Unit testing
- x Integration testing
- x Sanity testing
- x System testing
- x Smoke testing
- x Interface testing
- x Regression testing
- x Acceptance testing

Non- Functional

- x Performance testing
- x Load testing
- x Stress testing
- x Security testing
- x Volume testing
- x Compatibility testing
- x Reliability testing
- x Usability testing
- x Compliance testing
- x Recovery testing
- x Localization testing

Black box testing

Testers do not know much how the product is built. test the product as a end user.

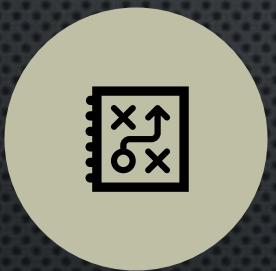
White box testing

Internal perspective of a system.
Mainly the code structure.
Happens at unit level.

Grey box testing

Testers have partial information of the product.
Helps find bugs, clients are unaware of.

WHY IS TESTING SO IMPORTANT?



PRE-RELEASE



EASY TO FIX
PROBLEMS FOUND

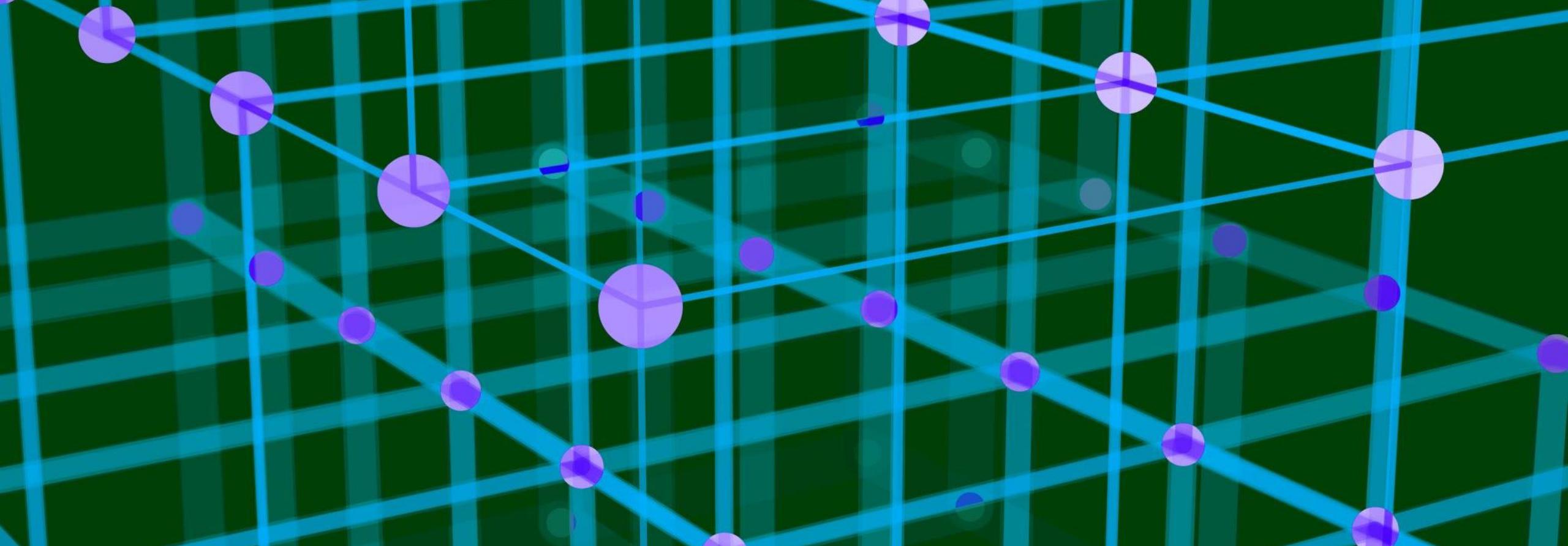


DISCOVERY OF
MISSING PIECES



REVIEW
ASSUMPTIONS

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

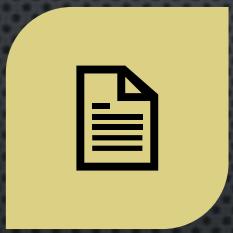
- DATA ADMINISTRATOR
- DEVOPS



DEPLOYMENT ACTIVITIES



FINAL TESTING STEPS



INITIAL
DOCUMENTATION
PHASE



MAKING SOFTWARE
PACKAGE AVAILABLE
TO CUSTOMERS



CUSTOMIZATION AND
DEVELOPMENT
TESTING



INSTALLATION TO
STAGING SERVERS



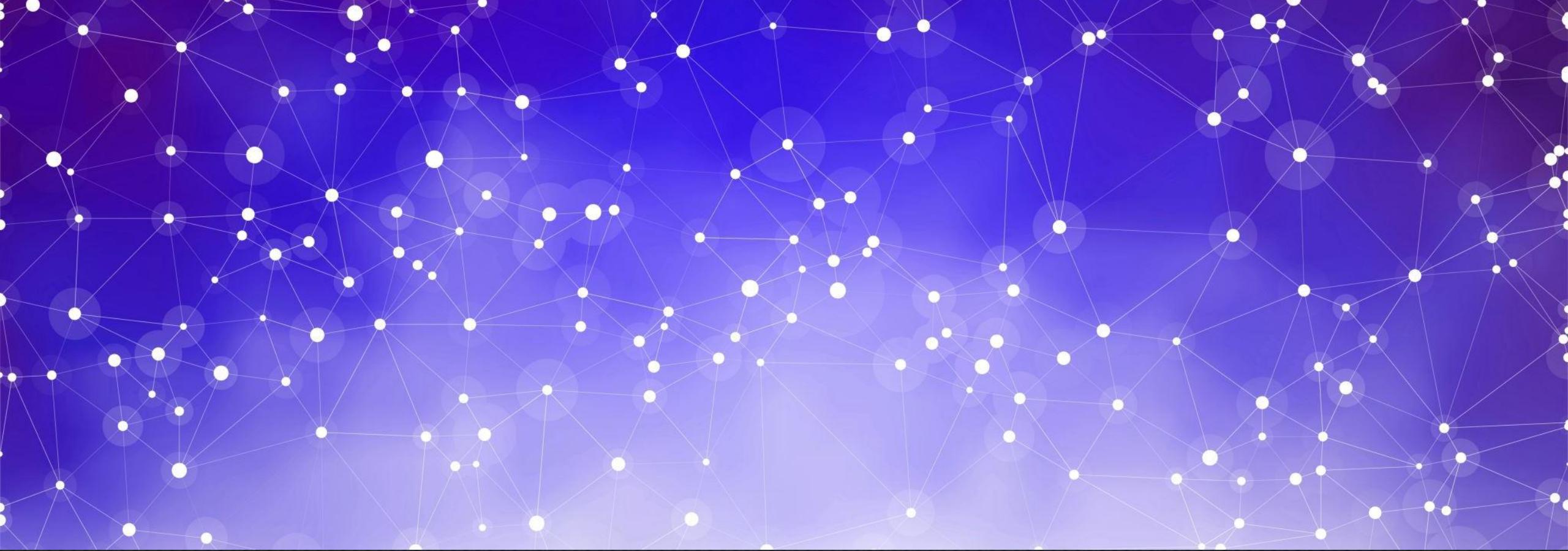
DOCUMENTATION
DOCUMENTATION
DOCUMENTATION

The screenshot shows the Confluence software interface. The top navigation bar includes 'Confluence', 'Home', 'Recent', 'Spaces', 'People', 'Apps', 'Templates', 'Create', and a search bar. The left sidebar for the 'CleverApp' space contains 'Overview', 'Blog', 'Space Settings', 'APPS' (with 'Orderly Databases' and 'Workflows'), 'SPACE SHORTCUTS' (with '+ Add shortcut'), 'Pages' (with 'CleverApp Main Page' selected), and 'Archived pages'. The main content area displays the 'CleverApp Main Page' with the title 'CleverApp Main Page'. It shows a creation history by Maggie and Aziza, and a summary: 'Automate and scale your sales processes with CleverApp. Learn how to get the most out of CleverApp. What is the product? Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Augue neque gravida in fermentum et sollicitudin ac orci. Lectus urna quis Convalis convallis Tellus id interdum elit laoreet. Magnis dis'. Below this, there are several paragraphs of placeholder text (Lorem ipsum) describing the app's features and use cases.

TOOL: CONFLUENCE

USER ACCEPTANCE TESTING



The background of the slide features a complex network of white dots connected by thin white lines, set against a gradient background that transitions from dark purple at the top to black at the bottom.

MAINTENANCE PHASE

MAINTENANCE ROLES



Users



Testers



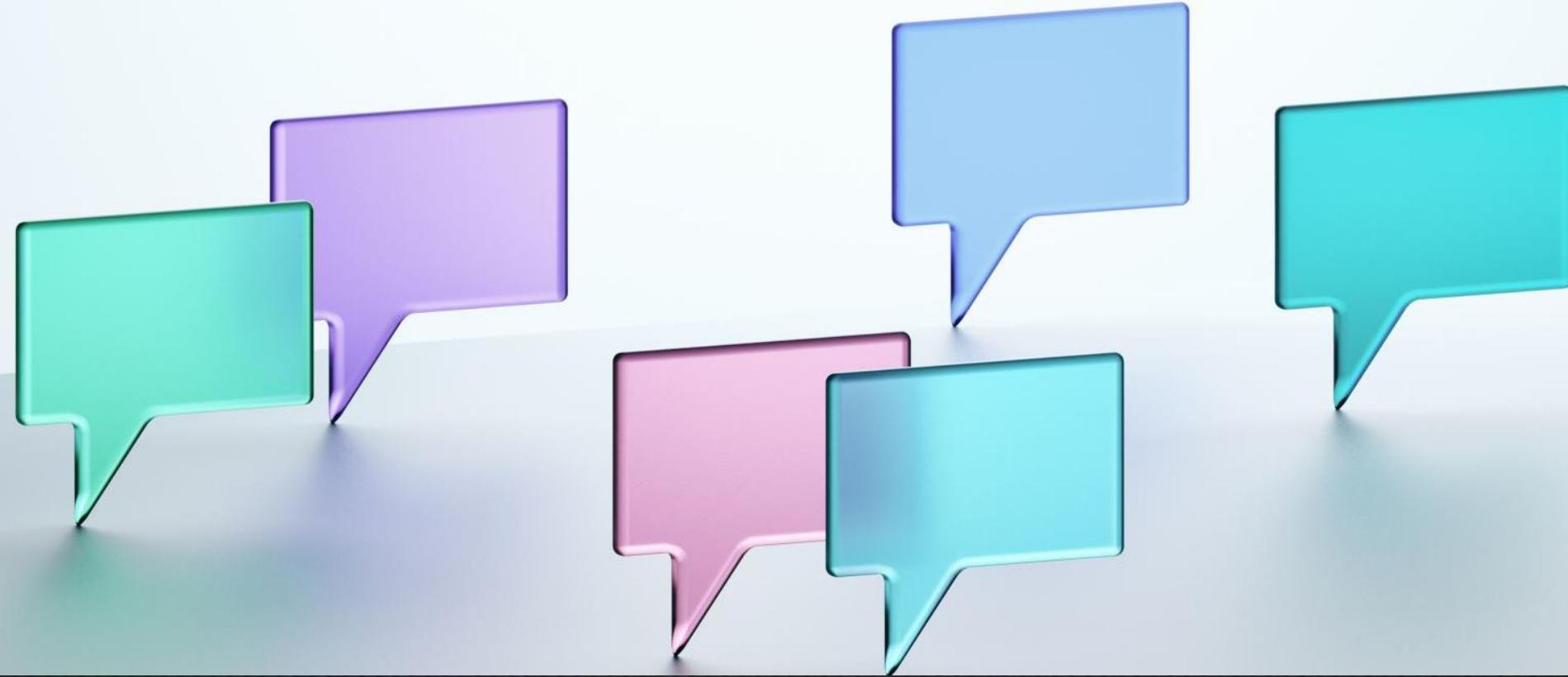
Support managers



Field Support Engineers

MAINTENANCE ACTIVITIES

- BREAK/FIX
- PRODUCT SUPPORT
- DEMONSTRATION/FIELD SUPPORT



COMMUNICATION



WHERE ARE OUR “FRONT DOORS”?

THEN WHAT?

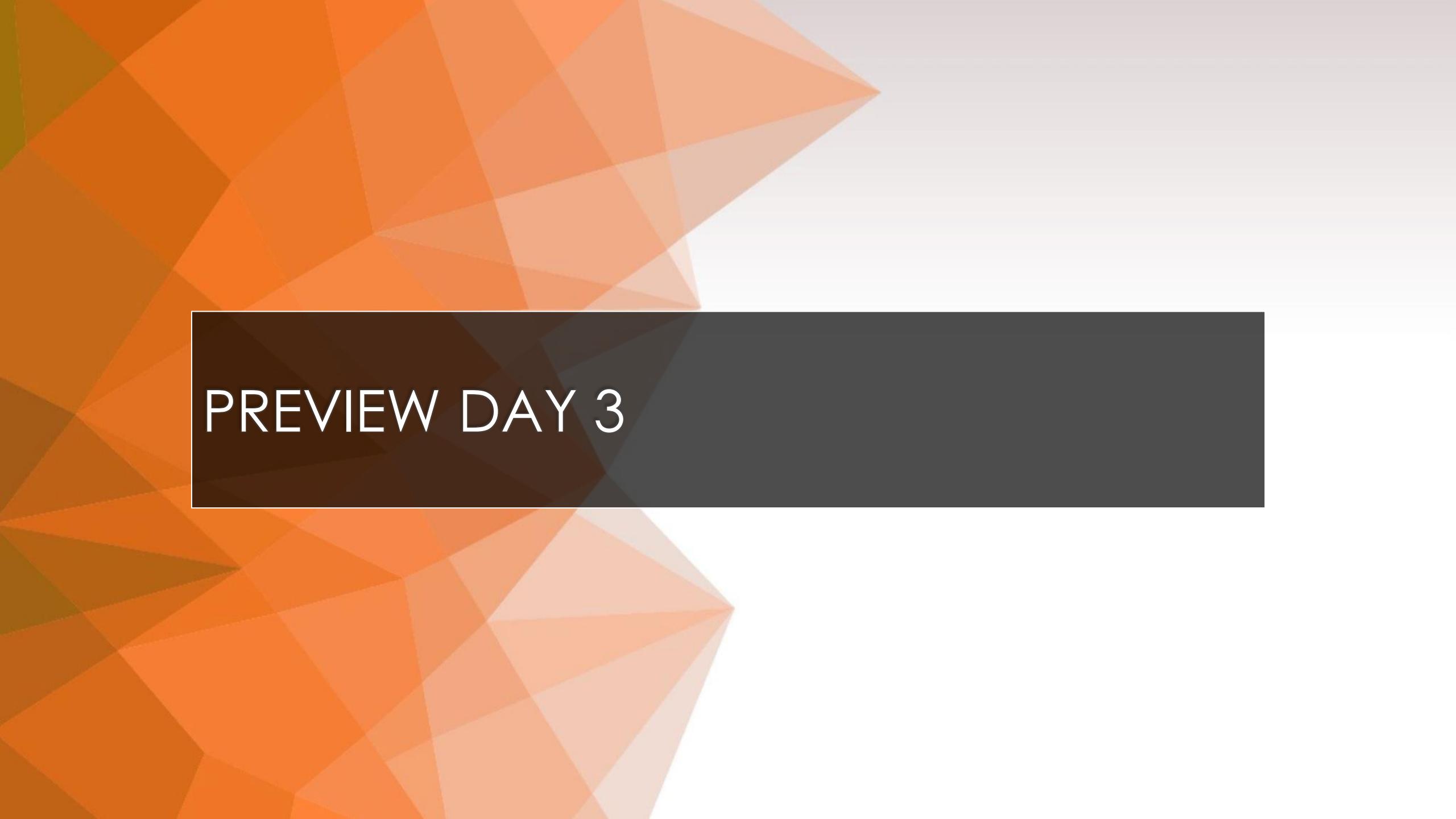


THIS IS THE SONG
THAT DOESN'T END

REVIEW DAY 2

QUESTION OR
CLARIFICATIONS?





The background features a repeating pattern of overlapping triangles in shades of orange, yellow, and light beige, creating a sense of depth and motion.

PREVIEW DAY 3

SEE YOU NEXT TIME!