CIVICA ideas into action

Building & Releasing with Azure DevOps

SISTEM 2021 | 20th February 2021

Andrew Fletcher | Liam Fletcher

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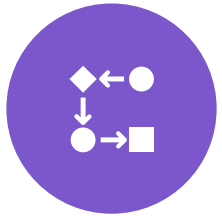
Agenda

INTRODUCTIONS

OUR AIM

DEVOPS

CI & CD



PROCESS & PARTS

WALKTHROUGH

RECAP

Q&A

Heading

- Andrew Fletcher
- Senior Software Engineer. .Net/C#/Azure
- Keen interest in all things Cloud

- Liam Fletcher
- Level 4 Computer Science @ QUB, QCS Committee member
- Part-time Software Engineer

Our Aim

What do you know about…

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We've built the next big thing…

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Now, how do we deploy it?

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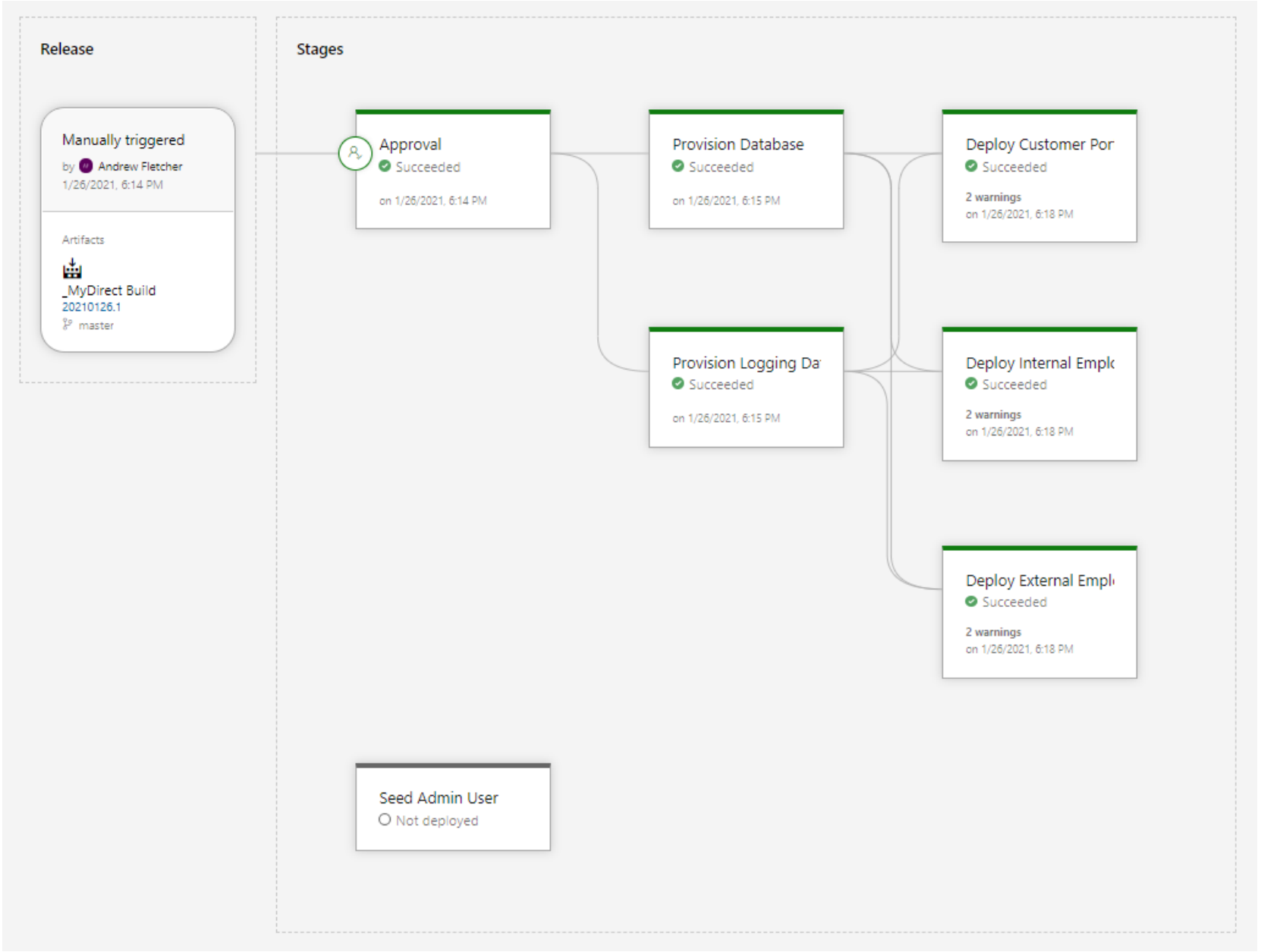
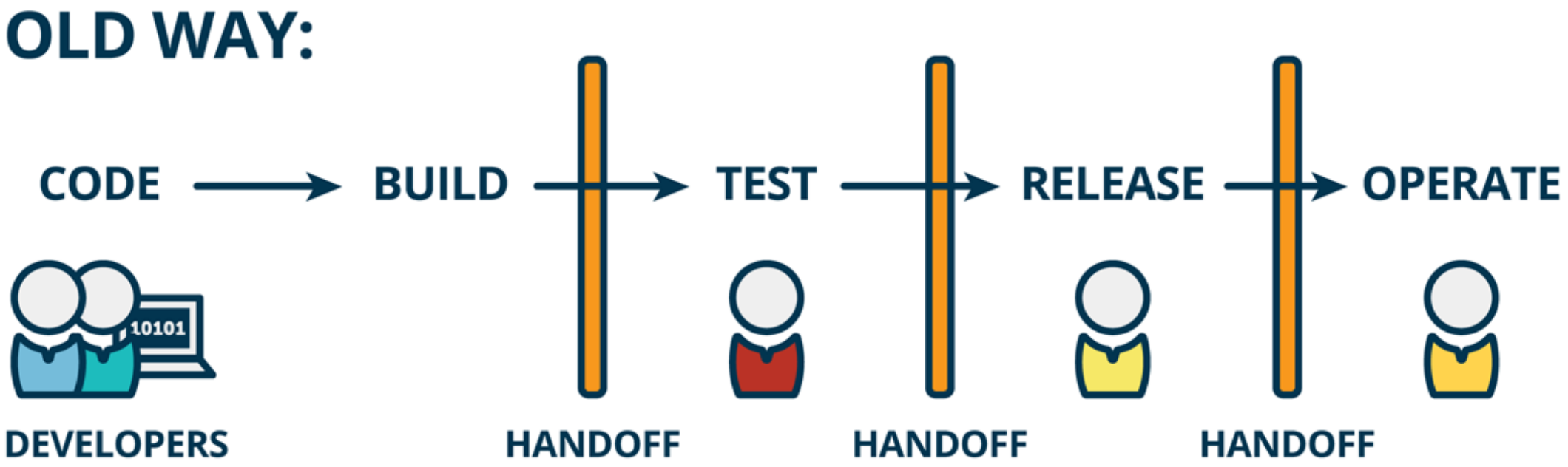
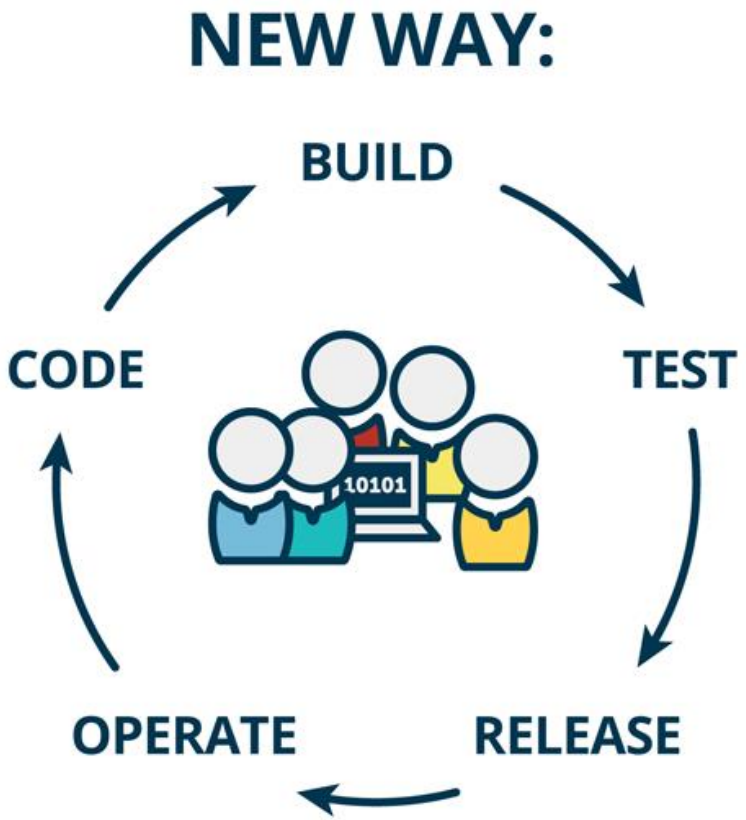

Release
Manually triggered
by Andrew Fletcher
1/26/2021, 6:14 PM
Artifacts
_MyDirect Build
20210126.1
master
Stages
Approval
Succeeded
on 1/26/2021, 6:14 PM
Provision Database
Succeeded
on 1/26/2021, 6:15 PM
Deploy Customer Por
Succeeded
2 warnings
on 1/26/2021, 6:18 PM
Provision Logging Da
Succeeded
on 1/26/2021, 6:15 PM
Deploy Internal Empl
Succeeded
2 warnings
on 1/26/2021, 6:18 PM
Deploy External Empl
Succeeded
2 warnings
on 1/26/2021, 6:18 PM
Seed Admin User
Not deployed

DevOps

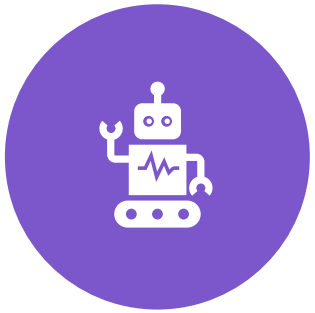

OLD WAY:
CODE
BUILD
TEST
RELEASE
OPERATE
10101
DEVELOPERS
HANDOFF
HANDOFF
HANDOFF

DevOps

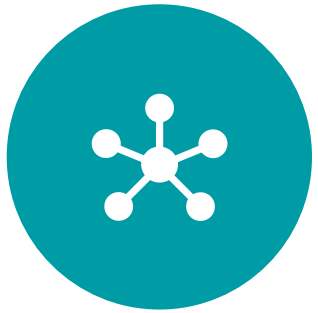
DevOps



What is it all about?



AUTOMATE



INTEGRATE

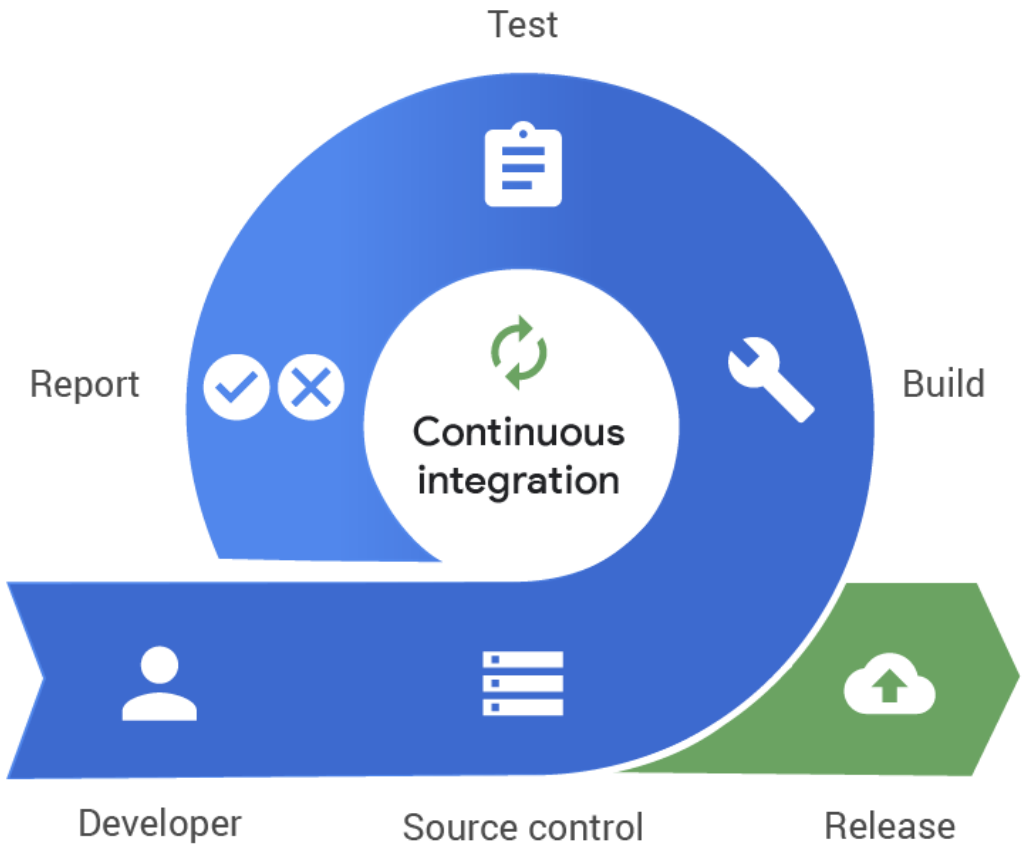
REPRODUCIBLE

EVERYTHING AS CODE

Continuous Integration & Continuous Delivery

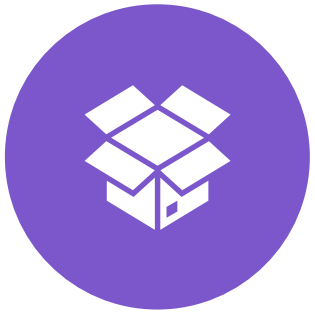
- **Continuous Integration**
- Automatic process to build, test and package the code as changes are made

- **Continuous Deployment**
- Automatic process to take built packages and deploy them



The Components

What do we need to make all this possible?



CODE IN A REPOSITORY

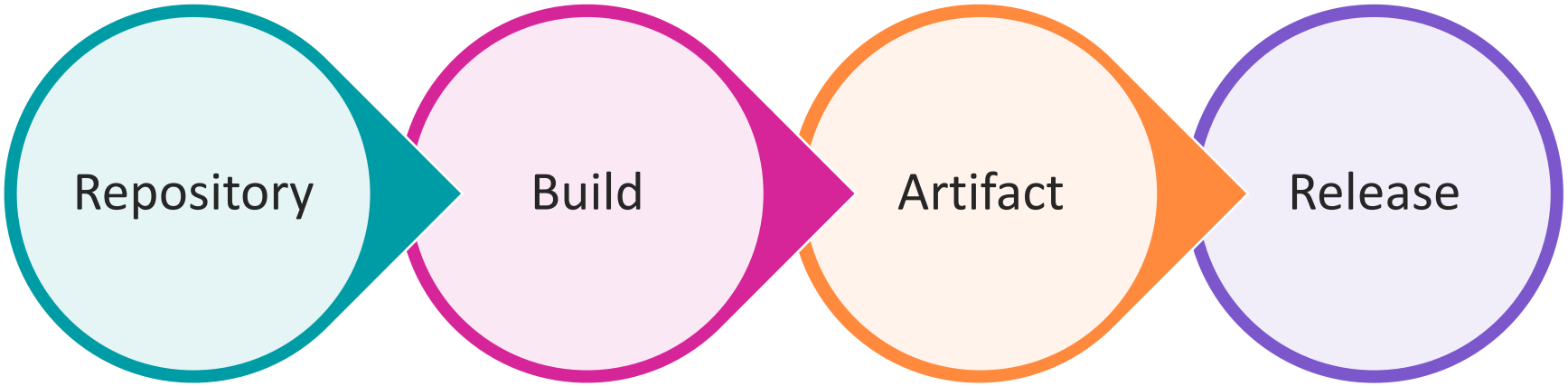
BUILD & RELEASE SCRIPTS

CLOUD / ENVIRONMENT

TOOLING

The Process

What steps are involved in a CI/CD build & release pipeline?



Occurs using a reproduceable, scripted process.

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Walkthrough

Lets take a look

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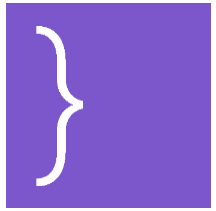
Walkthrough

{ Our scenario

Deploy a “Hello World” Web Application to the Microsoft Azure Cloud using Azure DevOps



Pre-requisites

- Microsoft Azure
- Available for free as a student
- **https://azure.microsoft.com/en-us/free/students/**

- Microsoft Azure DevOps
- Basic Tier available for free!
- **https://azure.microsoft.com/en-us/services/devops**

Recap

Looking back…

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Thanks for listening!

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