



Unite Seoul 2020

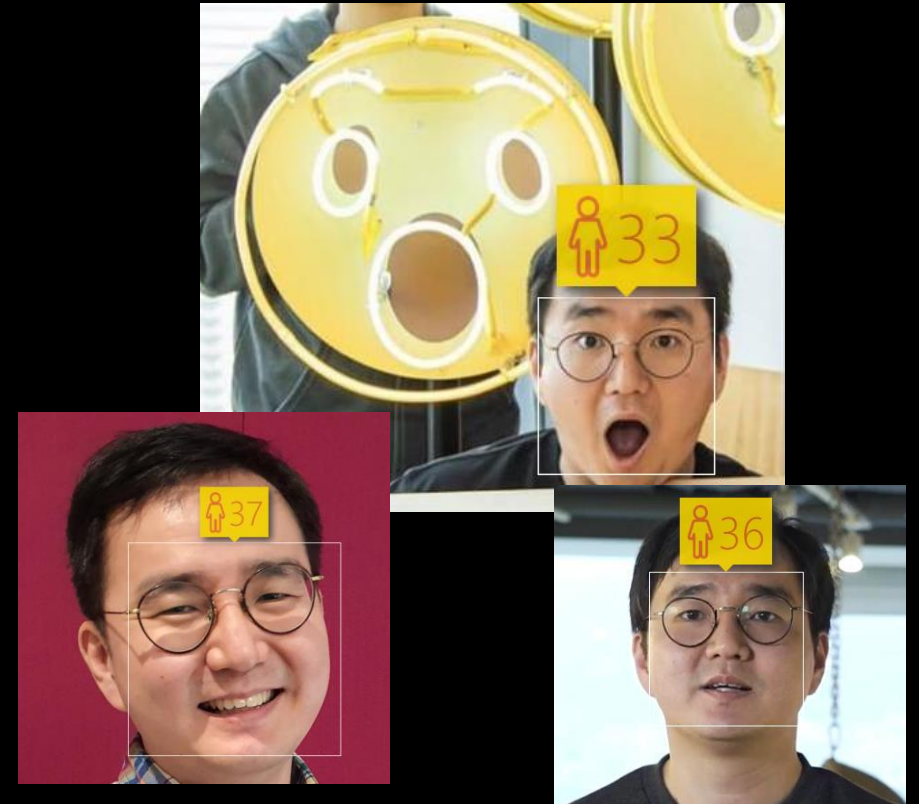
Unity 게임 개발 환경에 DevOps를 적용하기

- Demo with GitHub Actions-

최영락 | 한국마이크로소프트 Azure 사업부 매니저 | December 2020

Ian Choi
Developer Product Marketing
Manager (a.k.a. Field Developer
Relations) at Microsoft

  @ianychoi



DevOps란 무엇일까요?

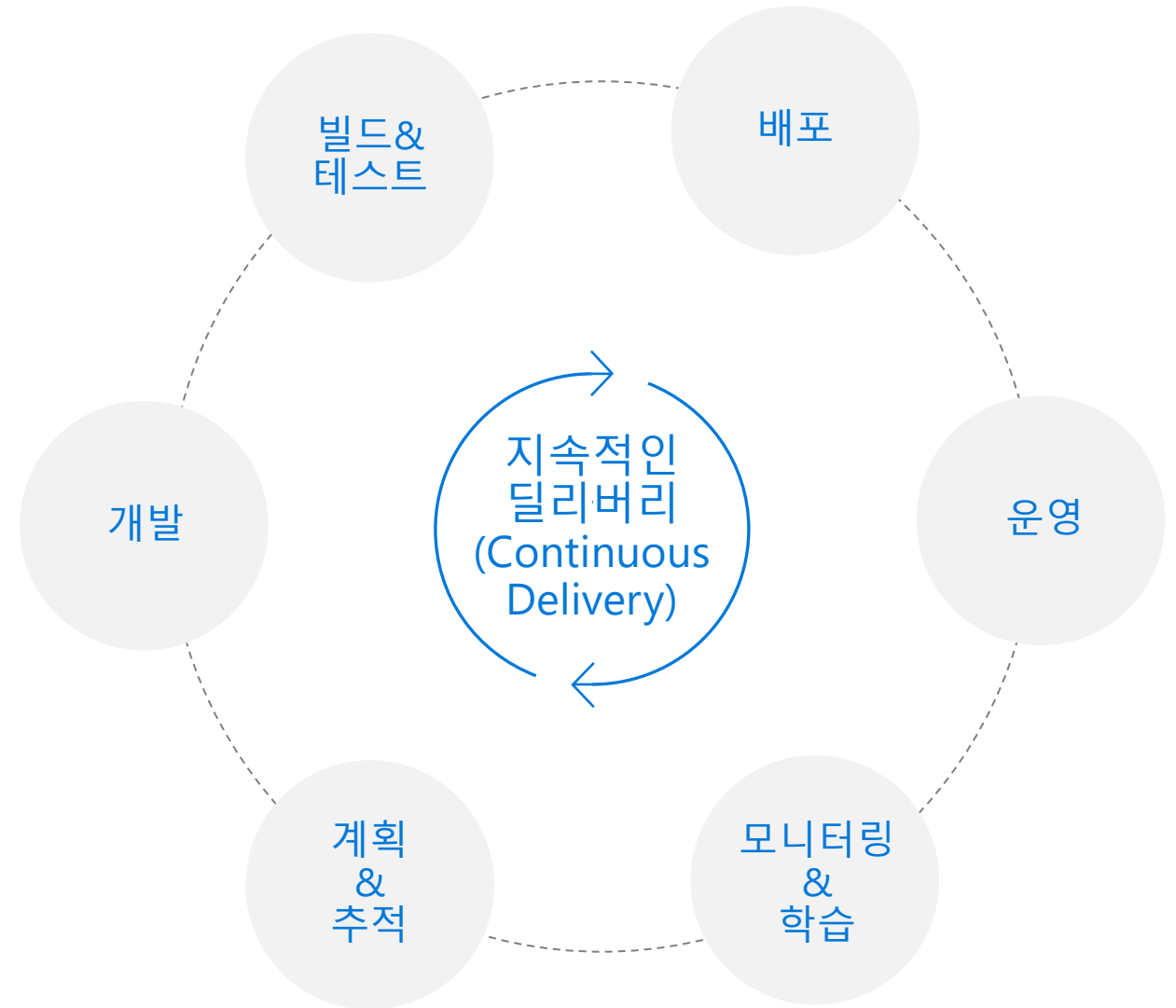
사람. 프로세스. 제품.



DevOps는 **사람**, **프로세스**,
제품이 함께 결합하여 최종
고객에게 가치를 지속적으로
전달하게 해 줍니다.



DevOps is the union of **people**, **process**,
and **products** to enable continuous
delivery of value to your end users.



DevOps과 협업 (Collaboration)



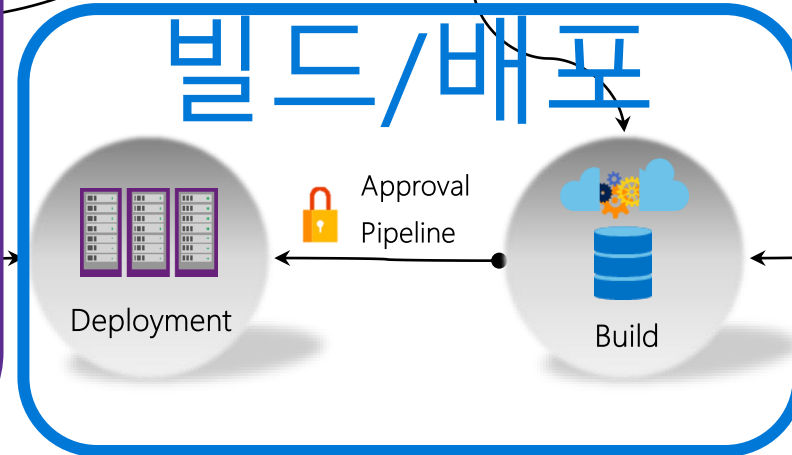
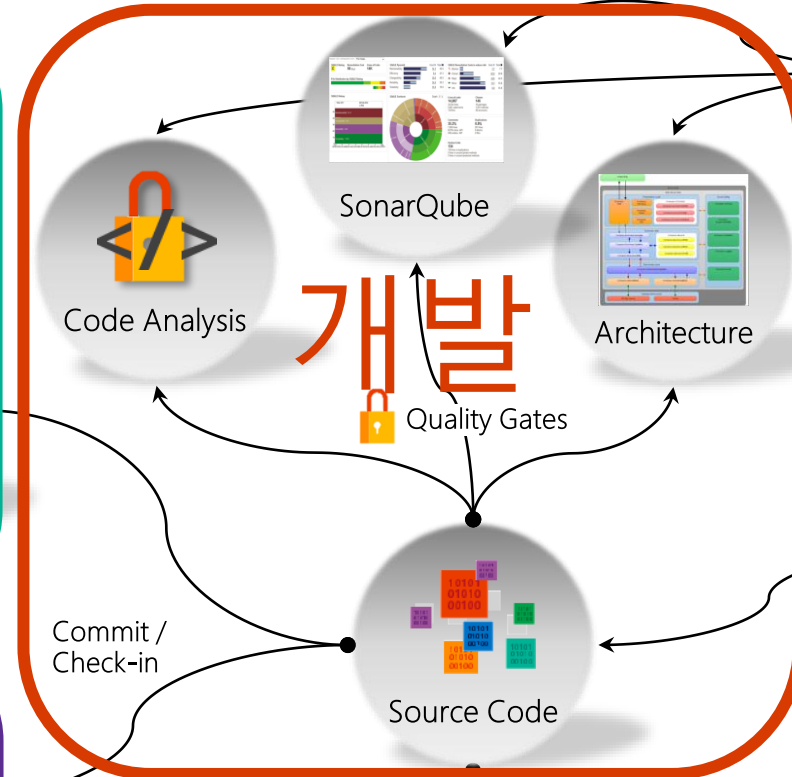
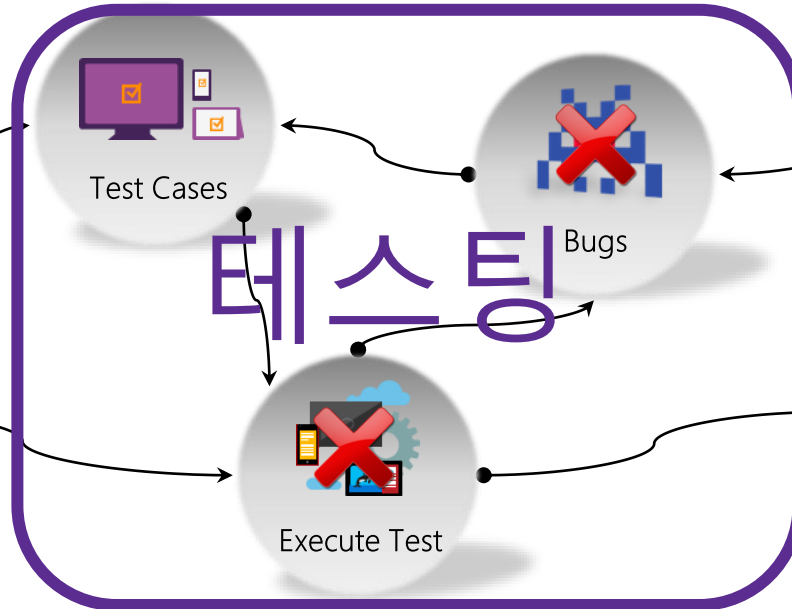
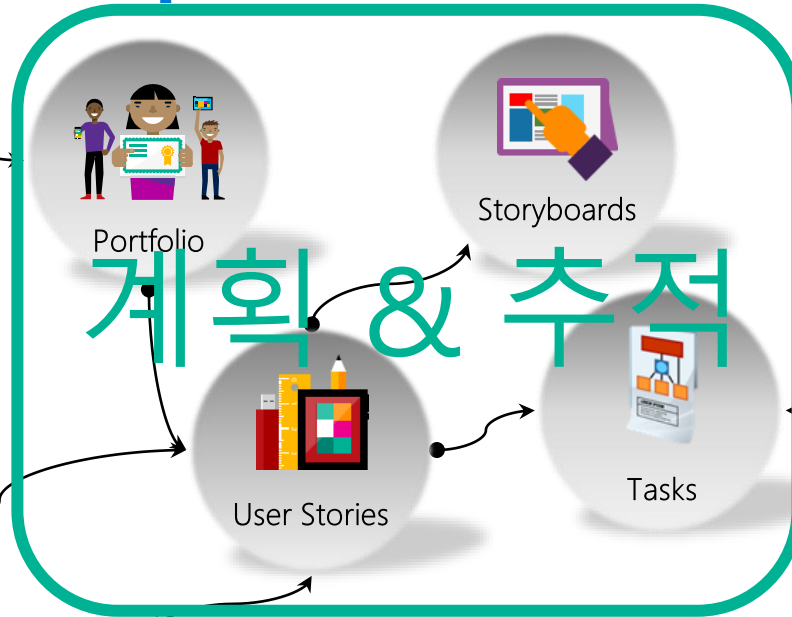
Project Manager



Business Analyst /
Product Owner



Quality Analyst



Project Lead



Developer



DevOps

게임 개발과 DevOps



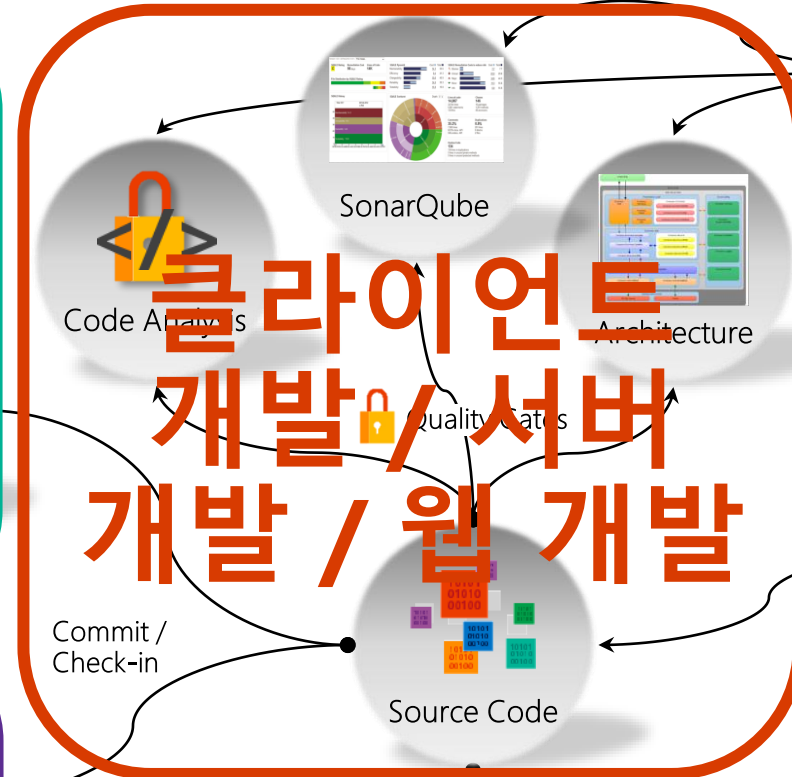
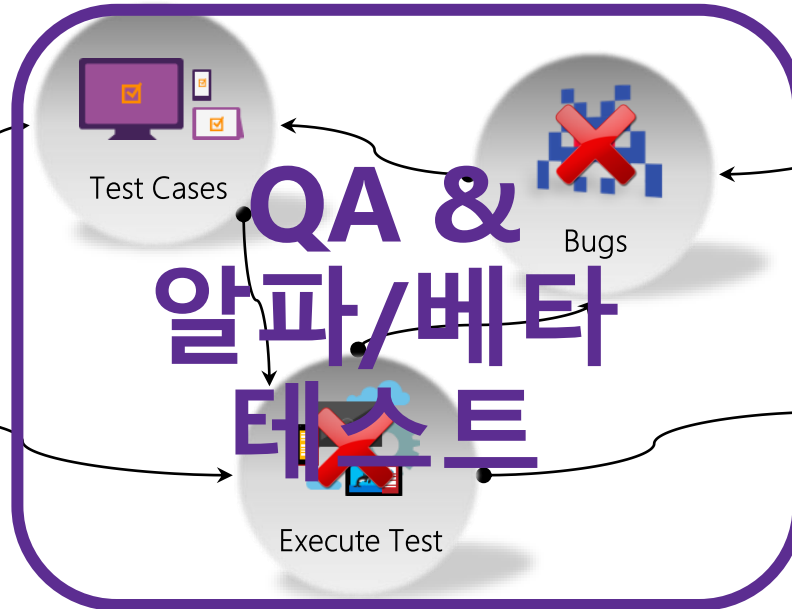
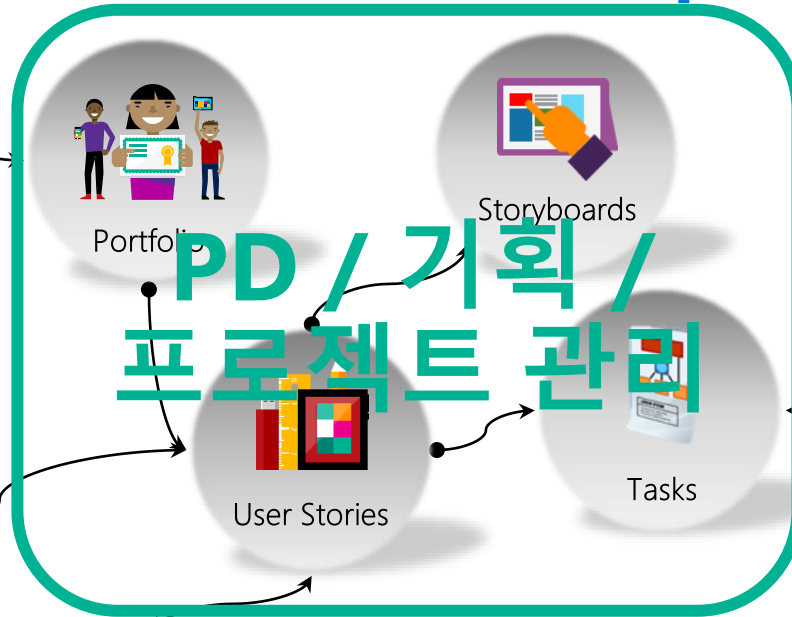
Project Manager



Business Analyst /
Product Owner



Quality Analyst



Project Lead



Developer



DevOps

DevOps with Microsoft & GitHub



Project Manager



Business Analyst /
Product Owner



Quality Analyst

Plan & Track



Develop



Project Lead



Developer

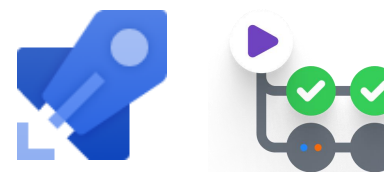


DevOps

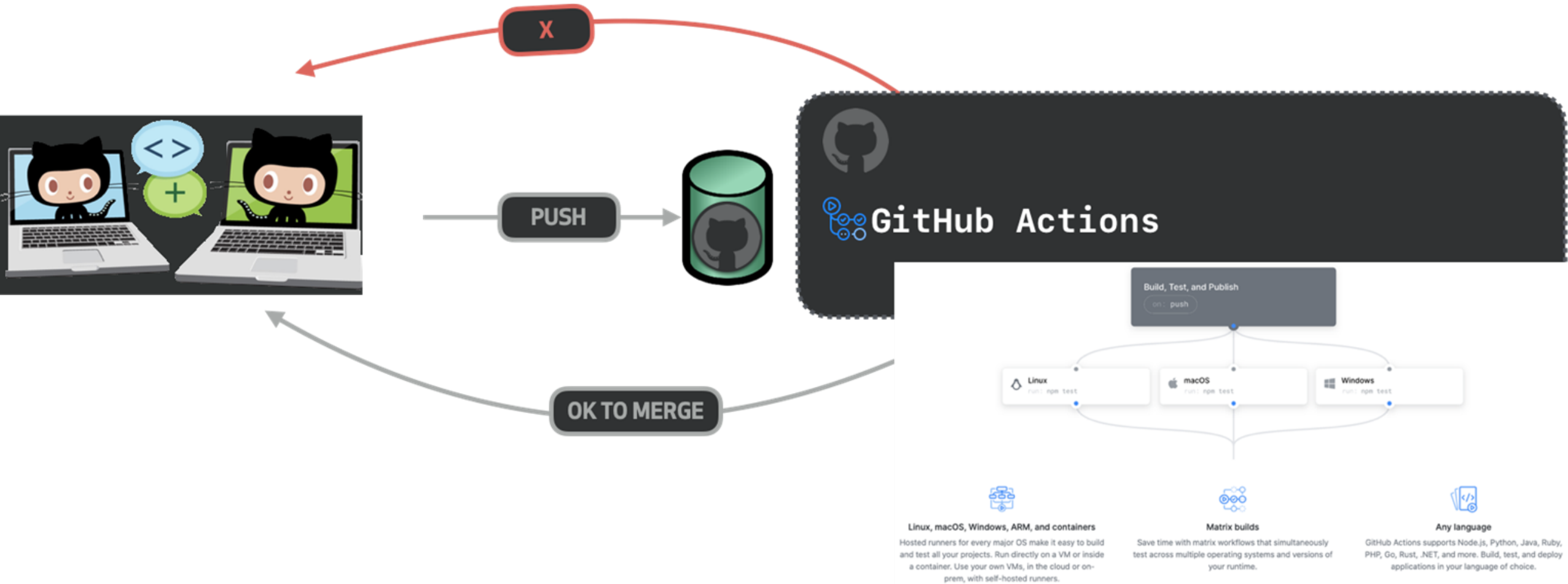
Manual Testing

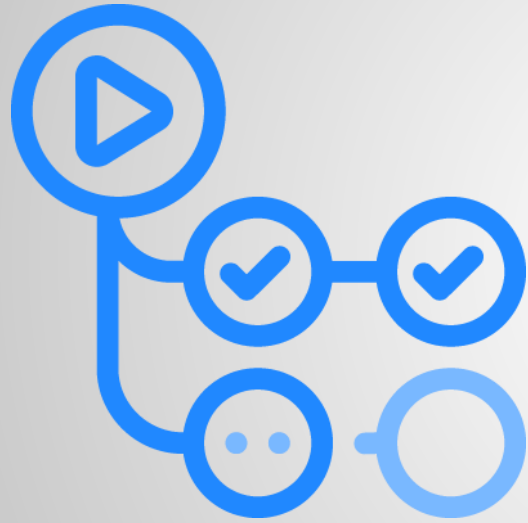


Build/Deploy

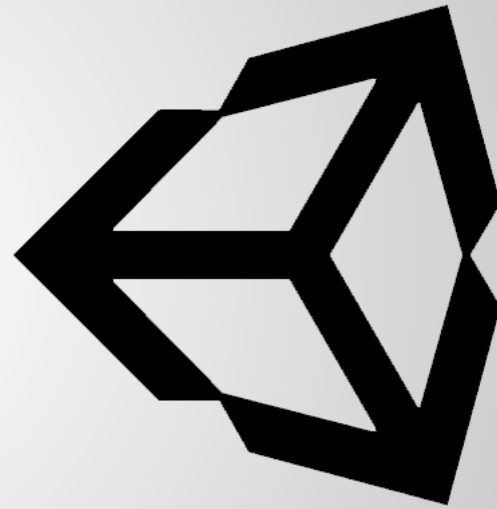


GitHub Actions: CI/CD 기능을 바로 GitHub에서!

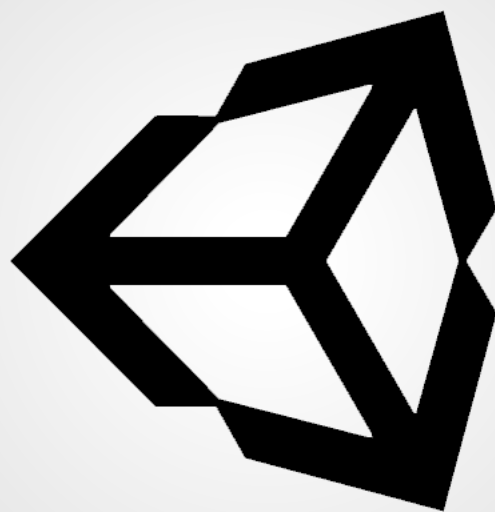


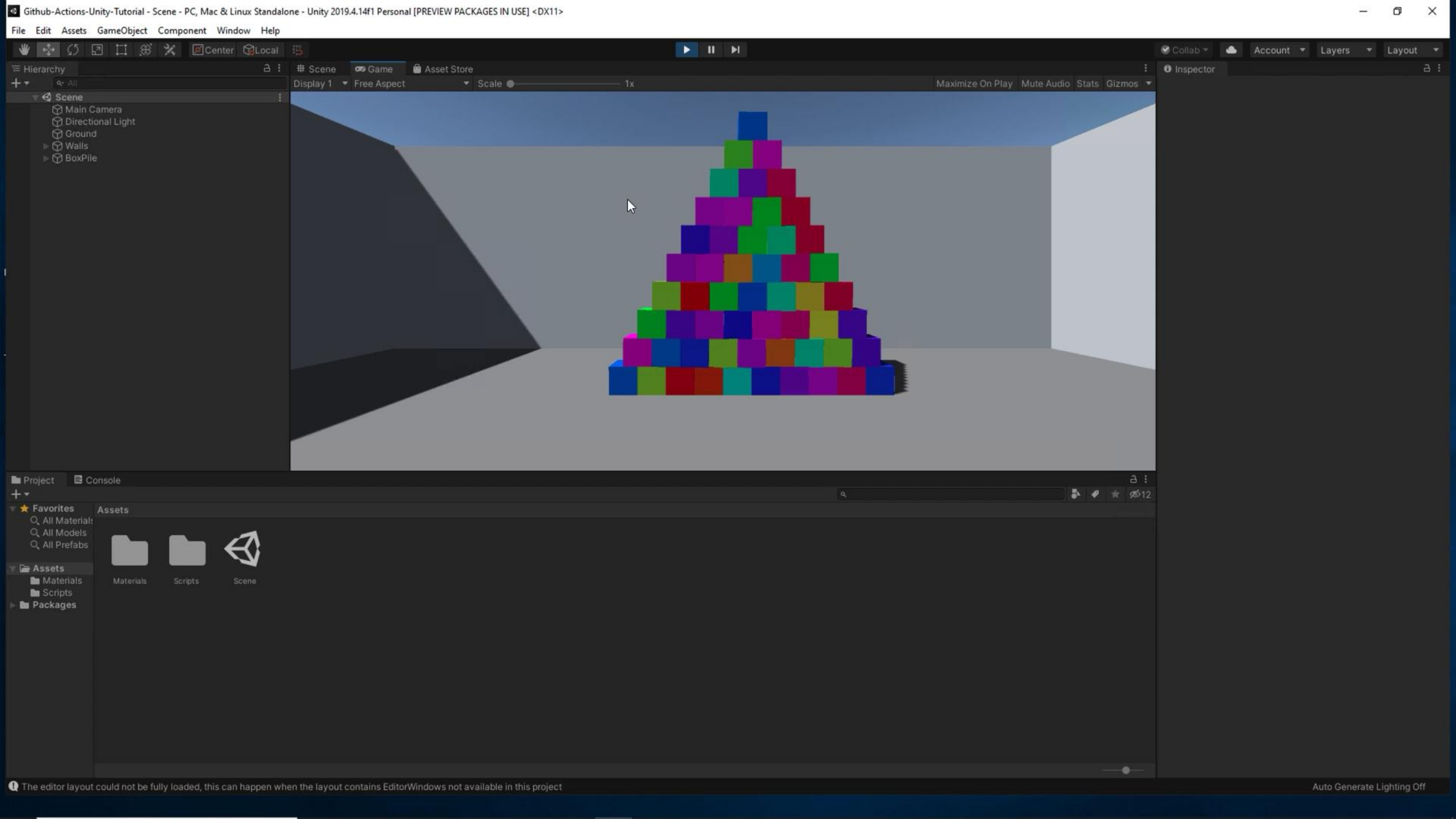


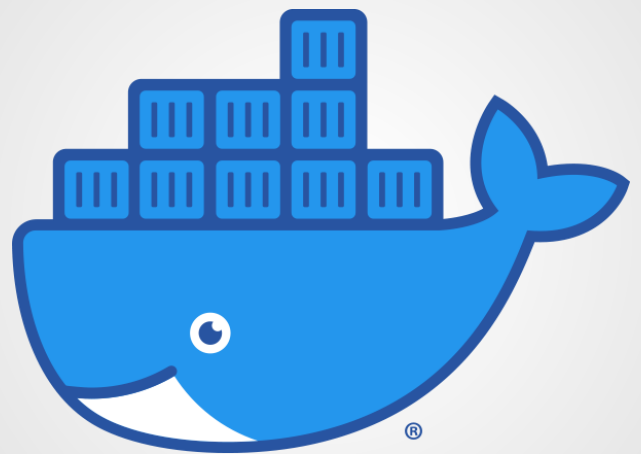
+



GitHub Actions









Unity CI


Open source continuous integration for Unity

<https://unity-ci.com>

Verified



 [Unity-CI](#) / [unity3d-ci-example](#)

 Additional remote of unity3d CI example project for Travis and CircleCI on Github

 gitlab.com/gableroux/unity3d-gitlab-ci-example

 MIT License



 Search for great content (e.g., mysql)

Explore

Pricing

Sign In

Sign Up

Explore

[gableroux/unity3d](#)



[gableroux/unity3d](#) ☆

 Pulls **500K+**

By [gableroux](#) • Updated 4 days ago

Unity3d docker image for running commands in a CI such as gitlab-ci

Container

데모 환경

- Unity 버전: 2019.4.14f1
- Docker 이미지 실행해 보기
- Unity 명령어로 라이선스 파일 추출 & 등록
- 라이선스 정보를 GitHub – Secret으로 등록하기
- GitHub Actions로 Windows와 macOS 빌드를 한 번에 수행
- 빌드가 이루어진 Output 다운로드 & 테스트





```
(base) yechoi@Ians-MacBook-Pro ~ % docker run -it gableroux/unity3d:2019.4.14f1
```





Manual activation

Welcome to the second step in the Unity manual activation process (first you must create a license request file inside Unity). Upload the license request file to proceed.

Choose the license request file

Browse

It should be named Unity_vX.alf or .ilf

Next

EXPLORER

OPEN EDITORS

- ! main.yml .github/workflows

GITHUB-ACTIONS-UNITY-TUTORIAL [WSL: ...]

- .github / workflows
 - ! main.yml
- Assets
 - Materials
 - Ground.mat
 - Ground.mat.meta
 - Walls.mat
 - Walls.mat.meta
 - Scripts
 - BoxPile.cs
 - BoxPile.cs.meta
 - ProjectileThrower.cs
 - ProjectileThrower.cs.meta
 - Materials.meta
 - Scene.unity
 - Scene.unity.meta
 - Scripts.meta
 - CI-Exploration_Data
 - Library
- Logs
 - Packages-Update.log
 - MonoBleedingEdge
 - Packages
 - ProjectSettings
 - AudioManager.asset
- OUTLINE
- TIMELINE

! main.yml

.github > workflows > ! main.yml

```
1 name: CI
2 on: [push]
3 env:
4   UNITY_LICENSE: ${ secrets.UNITY_LICENSE }
5
6 jobs:
7   build:
8     name: Build my project ✨
9     runs-on: ubuntu-latest
10    steps:
11      # Checkout
12      - name: Checkout repository
13        uses: actions/checkout@v2
14        with:
15          lfs: true
16
17      # Cache
18      - uses: actions/cache@v1.1.0
19        with:
20          path: Library
21          key: Library
22
23      # Build - Windows
24      - name: Build project for Windows
25        uses: webbertakken/unity-builder@v0.10
26        with:
27          unityVersion: 2019.4.14f1
28          targetPlatform: StandaloneWindows64
29
30      # Build - OSX
31      - name: Build project for OSX
32        uses: webbertakken/unity-builder@v0.10
33        with:
34          unityVersion: 2019.4.14f1
```

참고: Unity와 DevOps: CI/CD

		
설명	Unity teams에 포함된 기능으로, CI에 대한 자동화를 지원	오픈 소스로, 컨테이너로 패키징된 Docker 이미지를 기반으로 GitHub Actions 등을 활용한 CI 구성 가능
문서	<h3>Unity Cloud Build</h3> <p>Unity Cloud Build is part of Unity teams and provides continuous integration services for Unity projects. It helps you save time by automating the process of creating builds on Unity's servers. This automatic process frees your team and your team's computers from the time-consuming process of making builds. It helps you catch problems sooner, share builds with your collaborators, and iterate versions of your development more rapidly.</p>	
지원 저장소	Unity Collaborate, Plastic SCM, Git, Apache Subversion (SVN), Mercurial, Perforce	GitHub, GitLab, Travis CI에서 지원하는 모든 저장소 지원
장점	Unity 자체 지원을 통한 손쉬운 CI 구성	서버/웹 개발 파트와 동일하게 CI 구성 + DevOps 환경과 통합된 환경 제공



Thank you!

Unity 게임 개발 환경에 DevOps를 적용하기

- Demo with GitHub Actions -

Ian Choi

매니저, Azure 사업부
한국마이크로소프트