

# Intro to Pipeline Automation

This room provides an introduction to DevOps pipeline automation and the potential security concerns.

## Task 2 DevOps Pipelines Explained

Question	Answer
Where in the pipeline is our end product deployed?	Environments

## Task 3 Source Code and Version Control

Question	Answer
Who is the largest online provider of Git?	Github
What popular Git product is used to host your own Git server?	Gitlab
What tool can be used to scan the commits of a repo for sensitive information?	GittyLeaks

## Task 4 Dependency Management

Question	Answer
What do we call the type of dependency that was created by our organisation? (Internal/External)	Internal
What type of dependency is JQuery? (Internal/External)	External
What is the name of Python's public dependency repo?	PyPi
What dependency 0day vulnerability set the world ablaze in 2021?	Log4j

## Task 5 Automated Testing

Question	Answer
What type of tool scans code to look for potential vulnerabilities?	SAST
What type of tool runs code and injects test cases to look for potential vulnerabilities?	DAST
Can SAST and DAST be used as a replacement for penetration tests? (Yea,Nay)	Nay

## Task 6 Continuous Integration and Delivery

Question	Answer
What does CI in CI/CD stand for?	Continuous Integration
What does CD in CI/CD stand for?	Continuous Delivery
What do we call the build infrastructure element that controls all builds?	Build Orchestrator
What do we call the build infrastructure element that performs the build?	Build Agent

## Task 7 Environments

Question	Answer
Which environment usually has the weakest security configuration?	DEV
Which environment is used to test the application?	UAT
Which environment is similar to PROD but is used to verify that everything is working before it is pushed to PROD?	PreProd

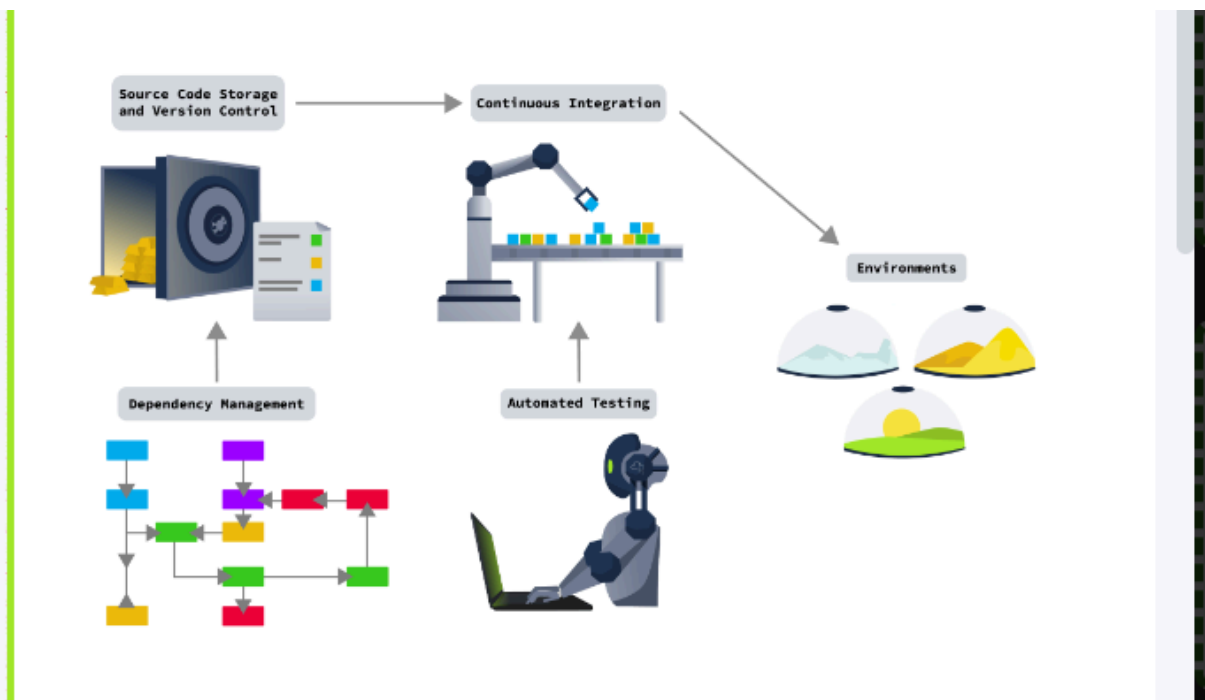
What is a common class of vulnerabilities that is discovered in PROD due to insecure code creeping in from DEV?

Developer bypasses

## Task 8 Challenge

What is the flag received after successfully building your pipeline?

Answer: **THM{Pipeline.Automation.Is.Fun}**

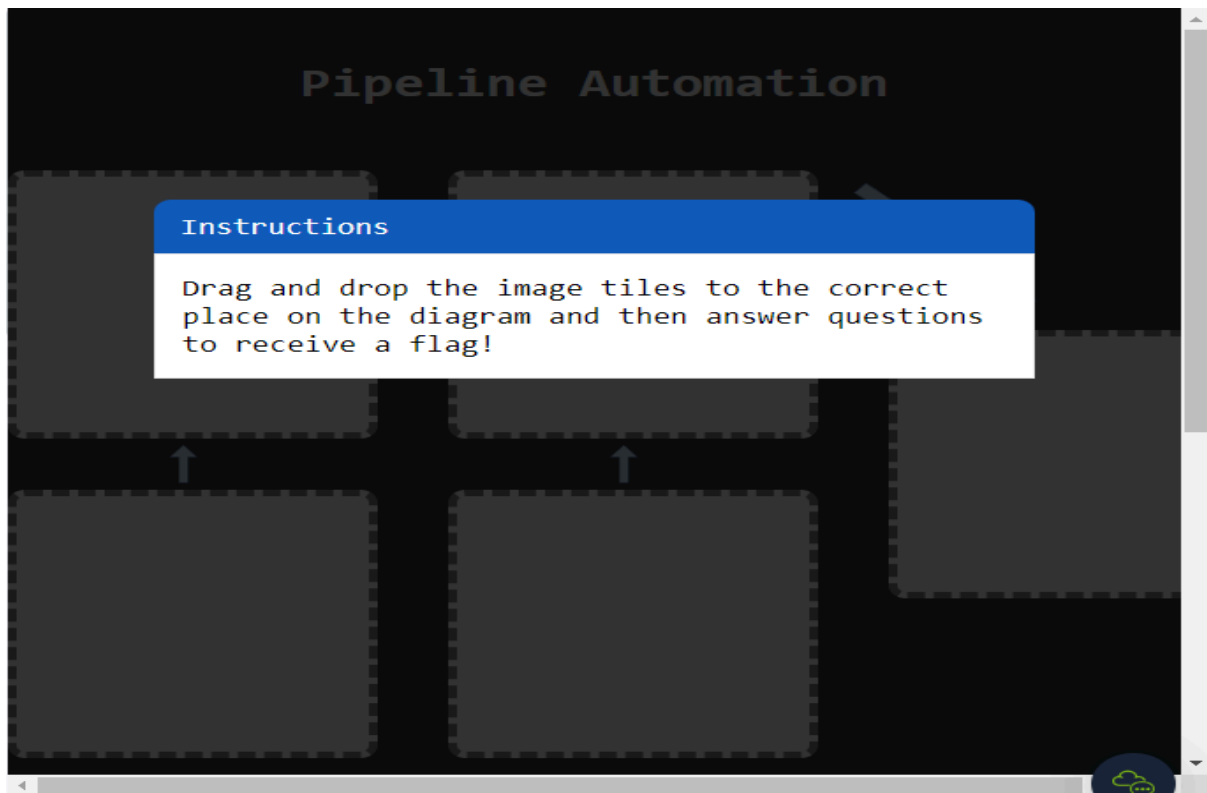


→ The following are answers to questions when i successfully placed each item in the right location

## Pipeline Automation

**Instructions**

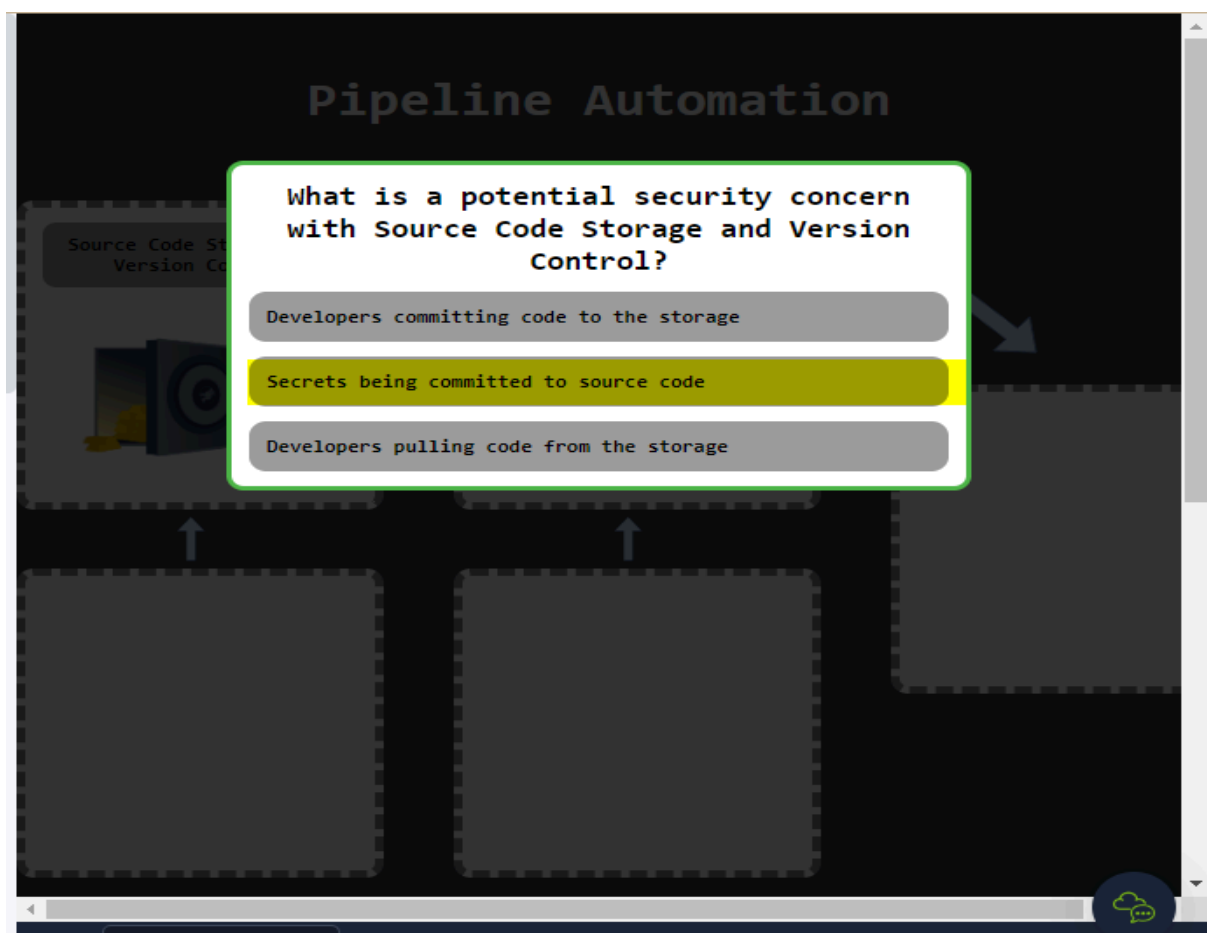
Drag and drop the image tiles to the correct place on the diagram and then answer questions to receive a flag!



## Pipeline Automation

What is a potential security concern with Source Code Storage and Version Control?

- Developers committing code to the storage
- Secrets being committed to source code
- Developers pulling code from the storage



The diagram illustrates a pipeline automation process. It starts with 'Source Code' and 'Version Control' on the left, represented by a box with a target icon. An arrow points from this box to a central area containing two large, empty dashed boxes. Below these boxes are two smaller boxes labeled 'Dependency Management' and 'Automated Testing'. An arrow points from the 'Automated Testing' box to a final box on the right labeled 'Environments', which contains three small dome-like icons. A green-bordered pop-up window is overlaid on the diagram, containing a question and three answer options.

**What is a potential security concern with Automated Testing?**

- An automated code testing tool being used as a replacement for penetration testing
- An automated code testing tool finding a vulnerability
- Using an automated testing tool to perform static or dynamic analysis of the application

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**What is a potential security concern with Environments?**

- Hardening your environments based on their use cases
- Having too many different environments
- A developer bypass making its way into a PROD environment

# Pipeline Automation

What is a potential security concern with Dependency Management?

An outdated dependency that has a known vulnerability is being used

The application having too little dependencies

The dependencies being developed internally

Source Code St  
Version Co



Dependency Management



Environments



# Pipeline Automation

What is a potential security concern with Continuous Integration?

Having more than two build agents

A developer triggering a DEV build for a new feature

A build agent building code for both DEV and PROD

Source Code St  
Version Co



Dependency Management



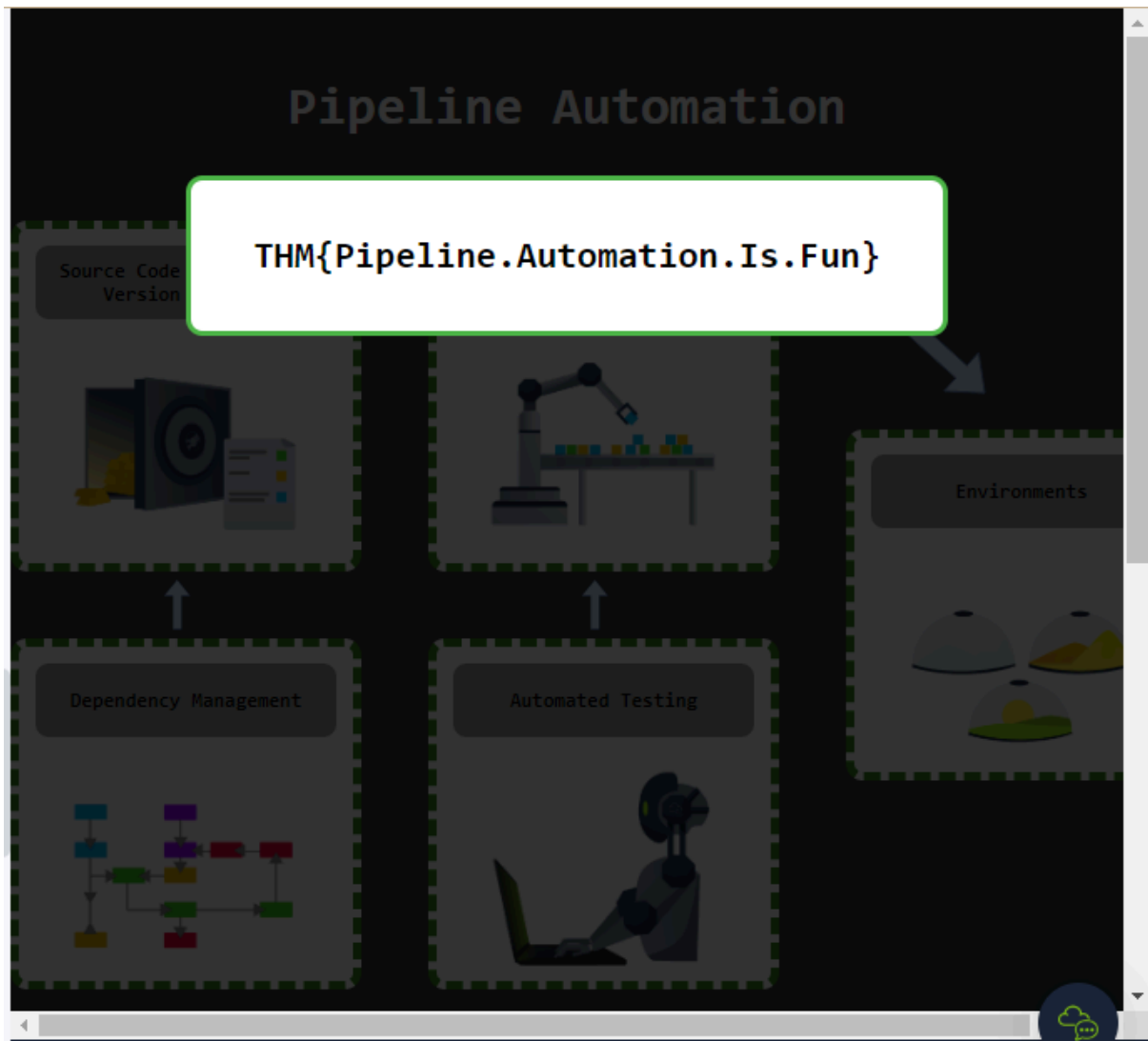
Automated Testing



Environments



→ Getting the flag



END!!!