Welcome!

**GitLab** 



### Hello



# HELLO my name is

### Allen Sanders

Senior Technology Instructor Pluralsight ILT

#### About me...



- 30 years in the industry
- 25 years in teaching
- Certified Cloud architect
- Passionate about learning
- Also, passionate about Reese's Cups!

### Agenda

- Learning objectives
- What is GitLab?
- Building your application in GitLab
- Securing your application in GitLab

### **How We're Going to Work Together**

- Slides and words to highlight key concepts
- Demos to bring those concepts "to life"
- Discussion groups and lab work (which will take place in sandboxes provided via AWS WorkSpaces) for hands-on reinforcement
- NOTE: I welcome being interrupted if you need more info, or clarification, or anything else, just break in and ask. I am here to help you.

### **Learning Objectives**



### **Learning Objectives**

- Understand key concepts and considerations when leveraging DevSecOps in an Agile environment to help "shift security left" during software development
- Construct and prioritize a threat model for an application being developed and use that threat model as a planning tool to guide each phase of the SDLC in a security-minded manner
- Speak to the value of DevSecOps and its consistent application as a set of standards and best practices

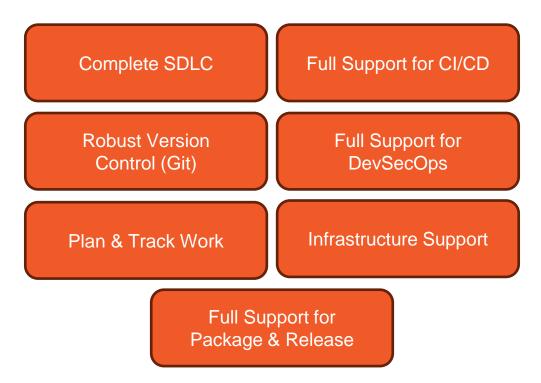


### **Learning Objectives**

- Monitor, patch and scan for vulnerabilities in the Operating System (Windows and Linx) and underlying Infrastructure configuration
- Effectively utilize GitLab for Source Code Management and CI/CD, including:
  - Understanding and navigating practical activities related to source code repositories in GitLab
  - Effectively use Software Composition Analysis (SCA), Static Application
    Security Testing (SAST), and Dynamic Application Security Testing (DAST)

### What is GitLab?

### **GitLab Features**



#### **Terms**



- Project Where work is organized, managed, tracked, and delivered as part of software creation (like a repository)
- Group Collection of projects or other groups (like a project)
- Issue Unit of work in GitLab project (akin to a User Story)
- Epic Collection of related issues
- Merge Request Request for merge of one developer's changes with the rest of the team (like a Pull Request)
- Milestone Deliverable(s) out of a GitLab project for completion (like a release)

### **GitLab Flow**



https://about.gitlab.com/topics/version-control/what-is-gitlab-flow/

### Building Your Application in GitLab

Intro to GitLab CI/CD

https://docs.gitlab.com/ee/ci/quick\_start/index.html

Complex Pipeline

https://docs.gitlab.com/ee/ci/quick\_start/tutorial.html

Publish Packages with CI/CD

 $\underline{https://docs.gitlab.com/ee/user/packages/pypi\_repository/auto\_publish\_tutorial.html}$ 

Setup CI/CD Steps

https://docs.gitlab.com/ee/tutorials/setup\_steps/index.html

Project Runners

https://docs.gitlab.com/ee/tutorials/create\_register\_first\_runner/index.html

### Securing Your Application in GitLab

Dependency Scanning

https://docs.gitlab.com/ee/tutorials/dependency\_scanning.html

Merge Request Approval Policy

https://docs.gitlab.com/ee/tutorials/scan\_result\_policy/index.html

**Docker Container Scanning** 

https://docs.gitlab.com/ee/tutorials/container\_scanning/index.html

Security End-to-End

 $\frac{https://university.gitlab.com/learn/course/hands-on-labs-gitlab-with-git-essentials/main/hands-on-challenge-gitlab-with-git-essentials}{}$ 

## Thank you!

If you have additional questions, please reach out to me at: asanders@gamuttechnologysvcs.com

