

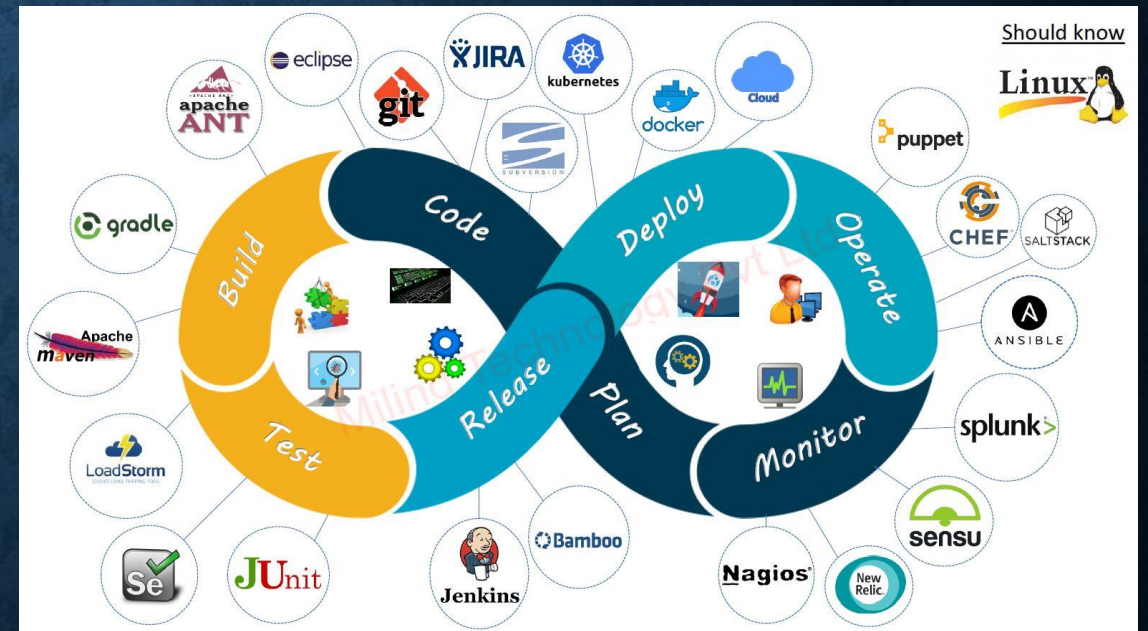
DevOps

CONTENTS

- Introduction to DevOps
- Version Control with GIT, JENKINS and MAVEN Integration
- Continuous Integration using Jenkins
- Continuous Development: Containerization with Docker
- Continuous Deployment with Salt Stack
- Configuration Management with Ansible
- Terraform
- Application Monitoring with AppDynamics
- Log monitoring with Splunk
- Python
- CI-CD Project Pipeline

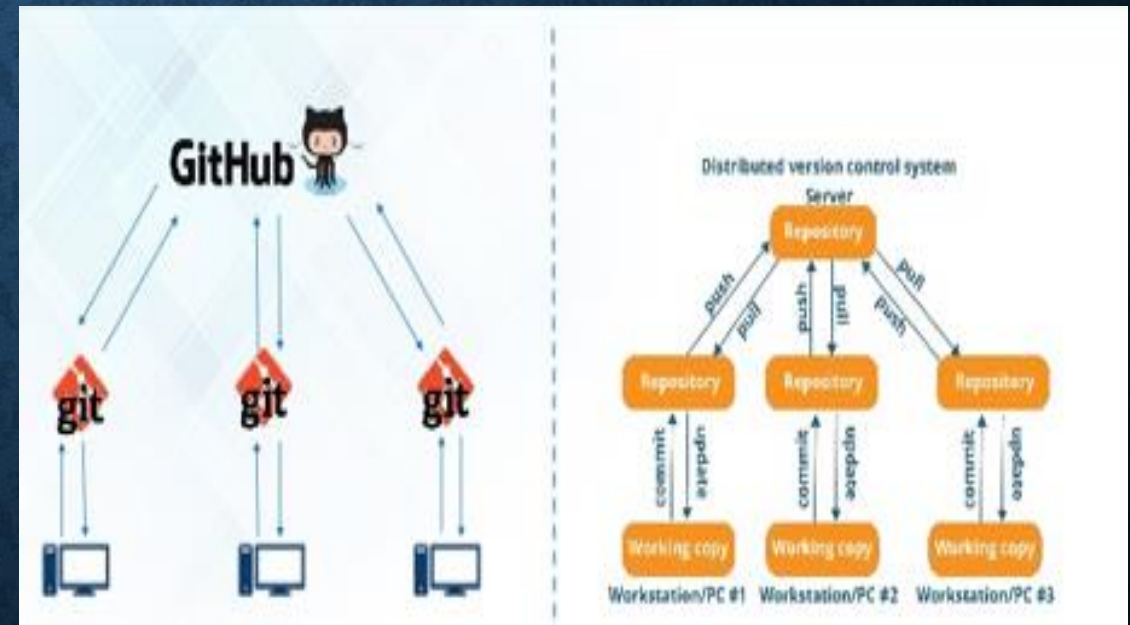
INTRODUCTION TO DEVOPS

- Why DevOps?
- What is DevOps?
- DevOps Market Trends
- DevOps Engineer Skills
- DevOps Tool chain
- Addressing Challenges through DevOps
- Workflow of DevOps
- DevOps Delivery Pipeline
- DevOps Ecosystem



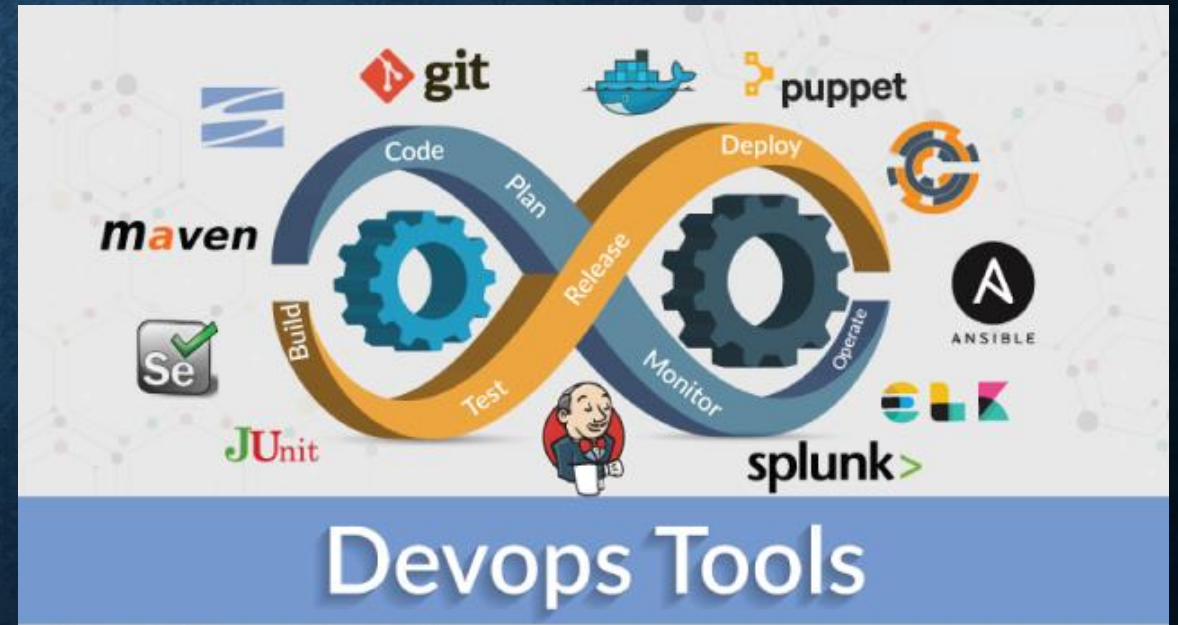
VERSION CONTROL WITH GIT

- What is version control
- What is Git
- Why Git for your organization
- Install Git
- Common commands in Git
- Working with Remote Repositories
- Advantages of Distributed VCS



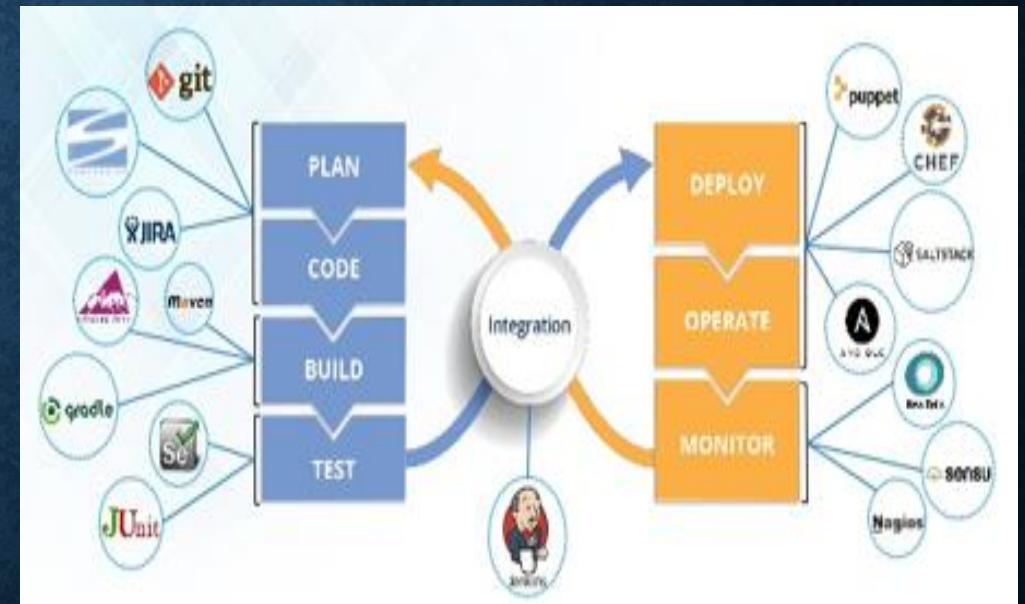
GIT, JENKINS & MAVEN INTEGRATION

- Branching and Merging in Git
- Git workflows
- Git cheat sheet
- What is CI
- Why CI is Required
- Introduction to Jenkins (With Architecture)
- Introduction to Maven



CONTINUOUS INTEGRATION USING JENKINS

- Jenkins Management Preview
- Adding a slave node to Jenkins
- Build & Delivery Pipeline
- AutoDeployment in Jenkins
- Pipeline as a Code
- Implementation of Jenkins in the Project



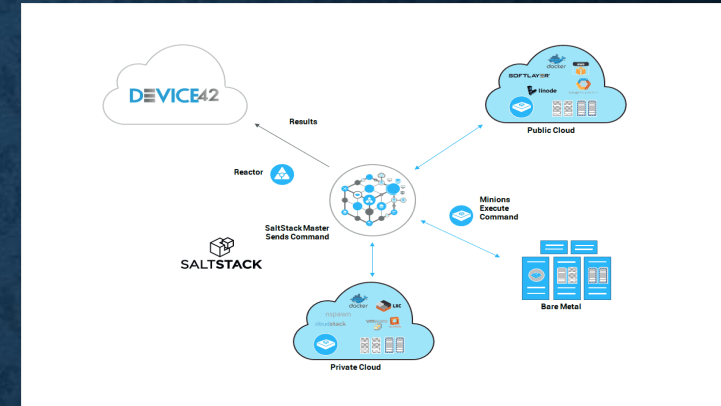
CONTAINERIZATION WITH DOCKER

- Docker overview
- Installing docker
- Pulling images (docker pull)
- Running images (docker run)
- Docker build and deployment-Connecting to running images (docker exec)
- Exposing volumes and ports
- Inspecting system (docker ps, docker status)
- Using docker-compose to connect containers
- Exposing volumes and ports



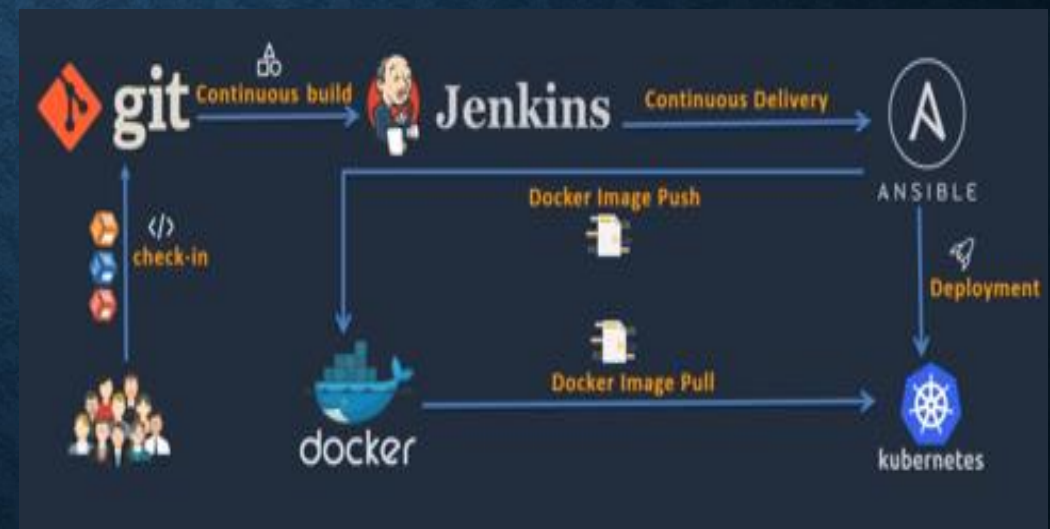
CONTINUOUS DEPLOYMENT WITH SALT STACK

- Introduction to Salt.
- Salt Architecture.
- Install SALT master and Minion in a server in linux.
- Sample Demo to install in GUI we can install only Minion in GUI.
- Check the status, start and stop and the ports.
- How to accept the Minions Globally, from Master how to check the Minion status of second machine.
- How to add Multi Master configuration just a demo if have time will show failover of a master.
- Use of Grain in commands gathering some Minion values using grains.
- Publishing command to minion using Pillars from master.
- use of PCRE commands (Pearl Compatable Regular Expression)
- using top.sls.



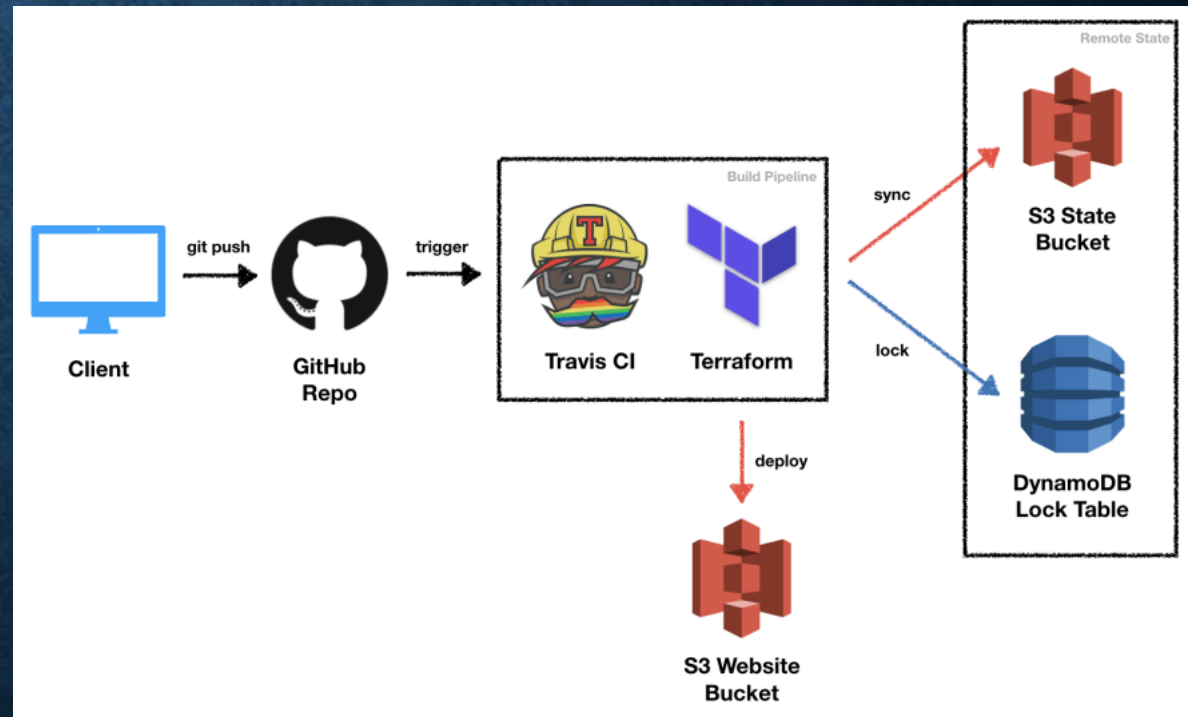
CONFIGURATION MANAGEMENT WITH ANSIBLE

- Introduction to Ansible. Ansible mechanism.
- Ansible installation in AWS instance. Ansible configuration. Playing with ansible adhoc commands. Creating simple play book. Playbook advanced - variables, loop, condition, debug. Ansible roles.



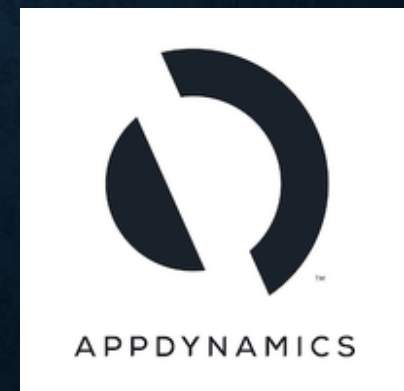
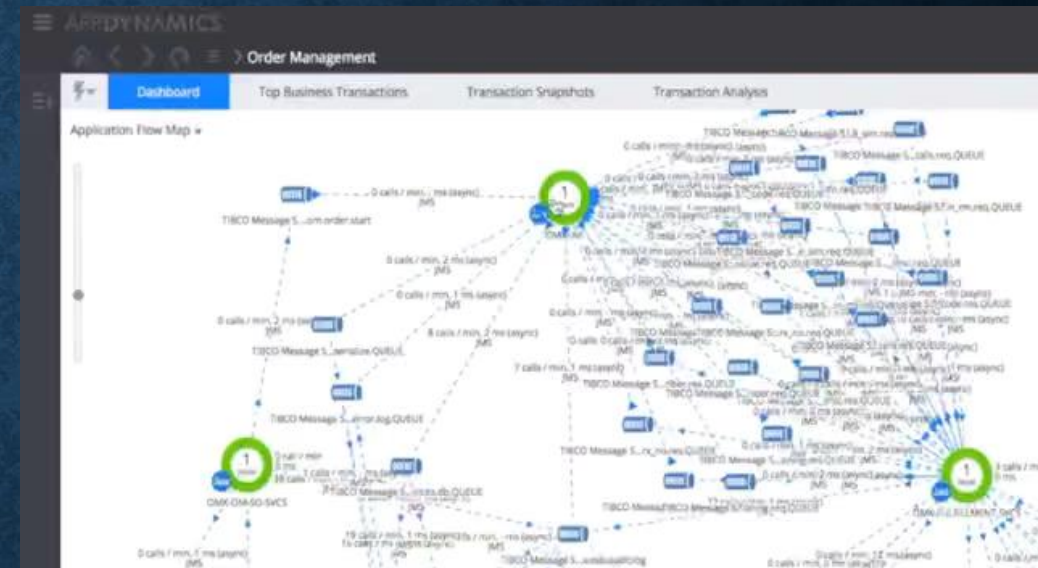
TERRAFORM

- Introduction to terraform.
- Installation of terraform
- Merging terraform with AWS.
- Creating TF file.
- Building full cloud architecture using terraform.
- Terraform backend.
- Terraform variables.
- Terraform state.
- Terraform locals.
- Terraform destroy.



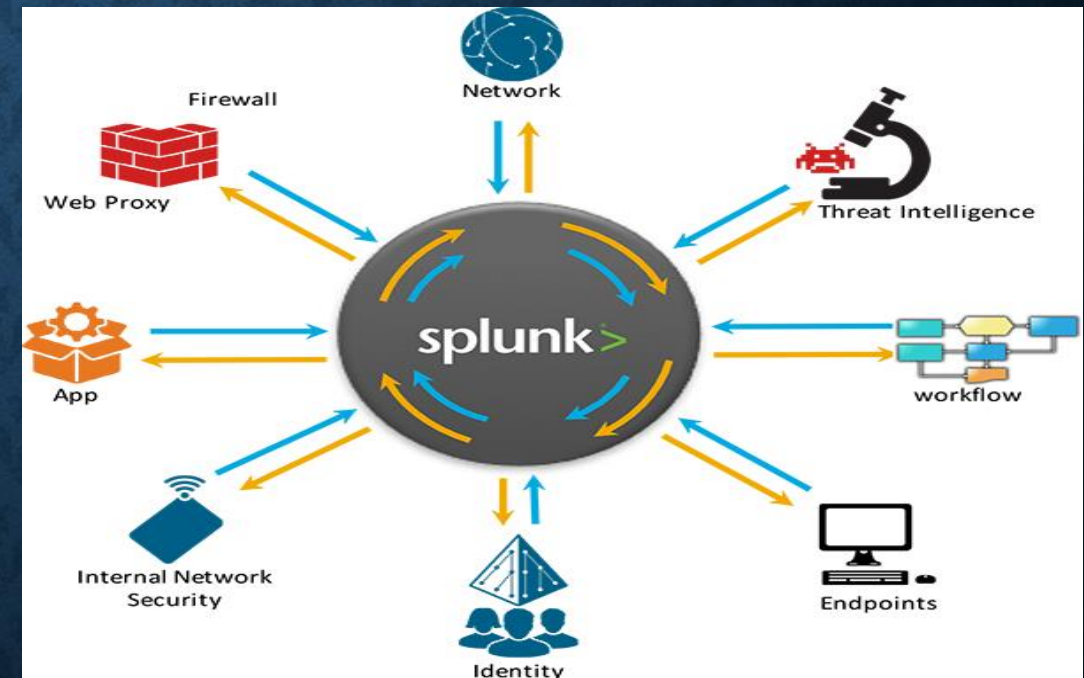
APPLICATION MONITORING WITH APPDYNAMICS

- Appd Introduction
- APM
- Architecture of Appd
- Machine Agent & App Agent
- Installation of Appd with SAAS
- Reporting in Appd
- Alert setting
- Dashboard in Appd
- Enduser Monitoring
- Appd vs Other tools



LOG MONITORING WITH SPLUNK

- Introduction to Splunk
- Necessity of Logs
- Why Splunk?
- Splunk Components
- Search Heads
- Indexes
- Forwarders
- Installation of Splunk
- Installation of Splunk Forwarder
- Splunk Search
- Splunk Alerts
- Splunk Dashboards

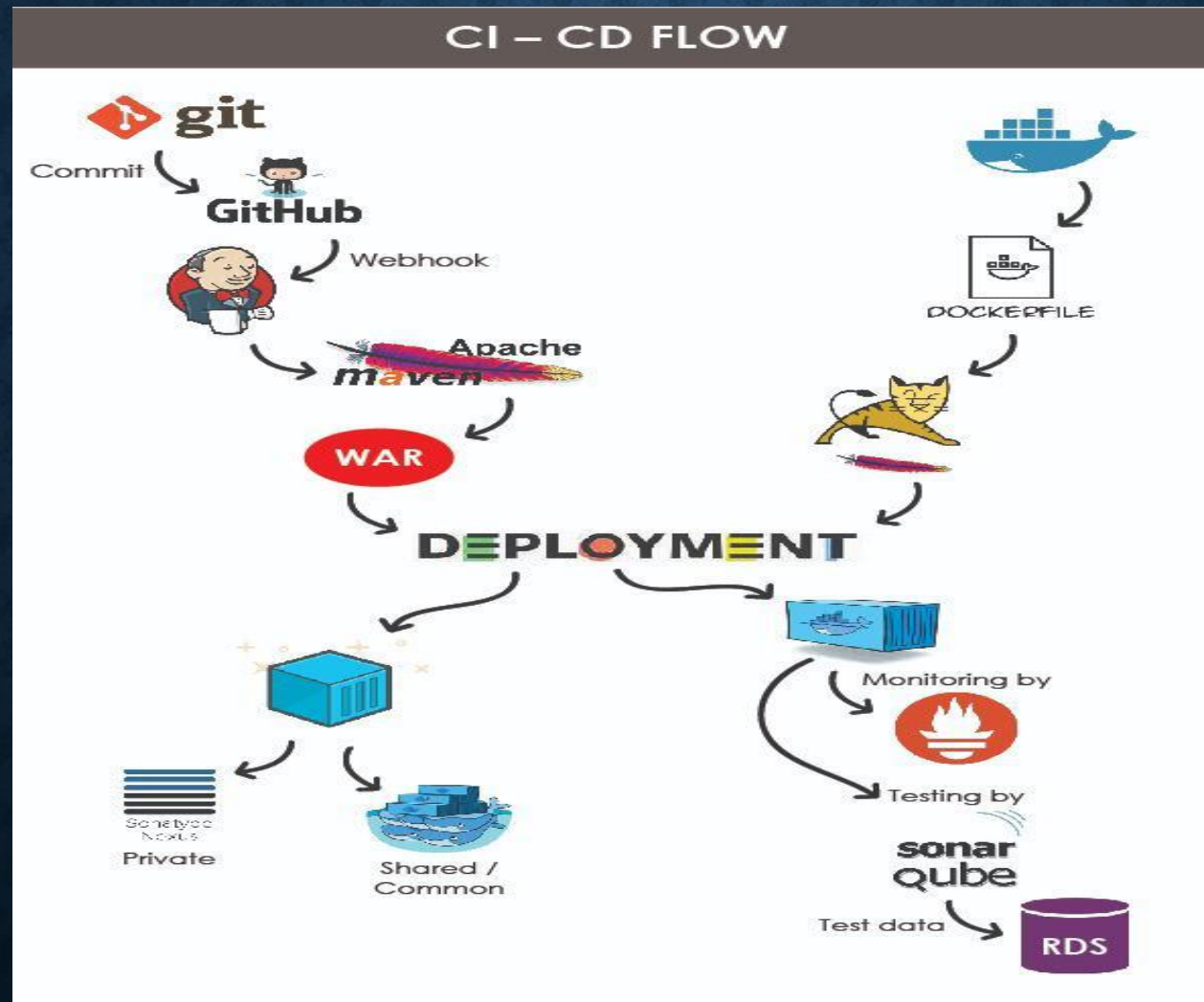


PYTHON

- Introduction
- Why Python?
- History of Python
- Installation
- Basics
- Data types
- Flow control
- List, Tuples & Dictionary
- Import modules
- Functions
- Read & Write files
- Programming



CI-CD PROJECT PIPELINE



!!! THANK YOU !!!