Automation
with
Bash Shell Scripting
(#!/bin/bash)

VRTechnologies

Learn How to Automate Repetitive Tasks with Bash Shell Scripting

Introduction

➢ **What is a Shell ?**
    ➢ **The Shell is the Linux Command Line Interpreter, Shell executes the commands/scripts**
    ➢ **There are different types of shells(interpreters) to execute commands/scripts in Unix/ Linux Environment**
    ➢ **cat /etc/shells**

```
[root@VRTech VRTech]# cat /etc/shells
/bin/sh
/bin/bash
/usr/bin/sh
/usr/bin/bash
/bin/tcsh
/bin/csh
/bin/ksh
/bin/rksh
```

    ➢ **The most popular and advanced shell is "bash"**

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Introduction . . .

➢ **What is a Shell Script ?**
  ➢ **Shell Script is a sequence of commands pasted in a text file.**
  ➢ **Example: Versions info of java, git, Jenkins, nginx, Docker/Kubernets, Ansible etc…**

```
java -version
```

```
docker --version
```

```
ansible --version
```

```
[root@VRTech VRTech]# cat getDevOpsToolsVersions.sh
java -version
docker --version
ansible --version
```

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Introduction . . .

➢ **Why we need to develop shell scripts ?**
  ➢ **To Automate repetitive tasks in our Unix/Linux Environment.**

➢ **We do release/deployment/patching on DevOps Tools – Week Ends**
➢ **So, just want to verify the all-DevOps Tools Versions info on every Monday**

ToolName	Version
Java	11.0.17
Jenkins	2.375.1
Nginx	1.20.1
Docker	20.10.22
Ansible	2.9.27

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- ➤ **Examples:**
  - ➤ Send some DevOps tools versions Report to compliance team @ Every Friday
    - ➤ Versions info of java, git, Jenkins, nginx, Docker/Kubernets, Ansible etc…
  - ➤ Find Log Files Between Two Dates
  - ➤ Monitoring Application(s) or Tool(s) or File System Usage
    - ➤ Monitor xyz Log Directory and if any logs are not generating in last 24hrs then trigger a mail
    - ➤ Monitor Micro- Services and Send Automatic Email Alerts When Application are Down
    - ➤ Monitor Jenkins and Send Automatic Email Alert When Application is Down
    - ➤ Monitoring File System Usage and Send Automatic Email Alert When Your File System Usage is more than threshold let say 90%

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Introduction . . .

➢ **Shell Scripting is a great way to Automate repetitive tasks in our Unix/ Linux Environment.**

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Thank you