

# Suvoda DevOps Technical Exercises

A few Jenkins and scripting activities have been prepared.  
Feel free to reference online resources as needed.

## 1. Pipeline Debugging

*Someone added a job in Jenkins, but it doesn't seem to be working.*

Sign in to Jenkins UI using the details in "Access Information".

The job named **example-job** should be saving a file and then printing it to the logs.

- Try triggering the job.
- Edit the pipeline and correct the typos.

## 2. Log Analysis

*We get a lot of log messages, but would like to focus on the errors.*

Connect to the server using SSH as described in "Access Information".

The folder **~/log\_analysis/** contains an archived log file.

Examine this log file.

- Are there any "SEVERE" messages?
- Create a script (using bash, python, etc) that reads a file like this and returns only the SEVERE entries. Hint: entries may span multiple lines.

## 3. Transit Pass

*We have inherited a shell script, but we don't know what it does.*

Connect to the server using SSH as described in "Access Information".

The folder **~/transit\_pass** contains a script and two data files.

- Read through the script to see what it would do.
- Run the script a few times.
- What are some edge cases that are not handled by the logic?

## Access Information

We have a virtual machine running Ubuntu with Jenkins installed.

## Jenkins UI

The user interface can be accessed using the following link and credentials:

URL: <http://3.223.243.38:8080/>

Username: sv

Password: xmjgjf

## SSH

## OpenSSH

The following commands can be used to save the key and connect to the server:

```
echo ' '-----BEGIN OPENSSH PRIVATE KEY-----
b3B1bnNzaC1rZXktdjEAAAABG5vbmUAAAABm9uZQAAAAAAAAABAAABlWAAAAAdzc2gtcn
NhAAAAAwEAAQAAAYEAwqQwNbmYRrjG23Z3+XRe7wQ5AbIoQa68NwuMYh6E9C10fmWh/KM
s1v459kdm8FRtskQuYk4UcXg20ov0us3D0JcRdbLIcFc3aFo0HHQfjAyg1q1FwG8Ya1K08
dNXJexu+NC9iqwKKK9Kr10NWwNKHQcMPXer2nfE73gXescRxSUOSVAoEuuxtCd/3MubUqF
XKbRSpcDEkdfNutmN00GzDnrvs3vn03j9AeWosLS2souLUDsaV2SCvaWsJxvqUpG68Wm
AgVsM7MRq0QZkmQ2x4aNjQkuCi+8QjH9v8F/8nVFA560S9p21jFq+dahL28BbKeGBHVJSw
zYwscFP6rohRbIMoS02ytbhheqS0UmJSvKhtxGdfE9gDHdnko+gMo4ne1IVQudqiI+5ZW
2MrfdRhaSqaZ1eD32ipN50Ngz09zCTS0qrTsWkDoa0wVZ1sL/D4NGWI6pae91v0NkUd10
z5FXLYkNM7KCT81p1xh801XdjFfucf5ag1YpDfSBAAAFkB/dYRkf3WEZAAAAB3NzaC1yc2
EAAAGBAMKMDW8ZmEa4xtt2d/10Xu8E0QGYKEGuvDcLjGiehPQpTn51ofyjLJb+OfZHvB
UbbJELmJOFHMYNtKLzrrNw9CXEXWyyHBXN2haNBx0H4wMYNapRcBvGGpStPHTVyXsbvjQv
YqsCipPSq9dVSDSh0HDD13q9p3x094F3rHEcU1Dk1QKBLrsbQnf9zLm1KhVym0UqXAxJH
XzbrVTDDKdHsw5677N759N4/QH1qLC0trKLi1A7G1dkgr21rCcb61KRuvFpgIFbD0zEatE
GZJkNseGjY0JLgovvEIX/b/Bf/J1R0OejkvadpYxavnWoS9vAWynhgR1SUsM2MLHBT+q6I
UWYDKERDtsrW4YXqktfJiUryh7cRnXxPYAx3Z5KPoDKOJ3tSFUFHaoiPuWvtjK33a4WkkG
mdXg99oqTedDYM9PcwK0mTqq07FpA6GjsFWYrC/w+DR1iBqWnvdB9DZFhdTs+RVy2JDT0y
gk/JaYsYfNJV3YxX7Nh+WoJWKQxUgQAAAAMBAAEAAAGAKx4gJ+dCbsR8BvmAyF6q11REEZ
+HF1tDWLoN6Z8oG/eegodN13PdwY0oqI0qUXS22AT0maxeT1jP3DhoZW1rsWu1zIL8cBa
CCbXh0WPQEUa05joAMcb14Ii32dH6PjFZI0pT+zom5LRIqPkb4L9Cg0jowI9qbnagIoD+
```

```
Yjb40Zik8v8YsQ5K3TX2AjWlyvaGev31Qit4Qs6PSTW7QmB9P/nv27zZEDm/IopzoiGGT
2smQ3G0V1PH6qcmyscFtfty49QhzISKJwgA47dp7dw96/o+/g4uBK900cWeEd3hWzSxAgP
tnb7srUPuj9T+y+k8Y4Wh8aJ58cUuKinG7YHFg4jvKHnfYRscAC223zJB5NjjKa3wyBrWj
AGGGjPZ+r11Si/n4vhev00V5ebK+CpV3P0x118tnc6HNqeX2d+DvYBskoRhNEVZA4/g6Vg
Uah9dXcaCmT0Z61Vp6s+zX9rC1oicqLLKazIpCh1hoNfD9pooY2Kip05S4cud9wcpZAAAA
wQCsVdAXZDSKcTyIKrAhqjPSlHvn4VdDpvBvcSNS9TnRNzjUr4uM+4U01uKbt/mzw2rebz
xk5Q2wRaLG2AvM0YDQfHsBm55LFaEacI3N3uy9Mm8+GHN6TMJWz2q+/wg1cGzjez8sTIwAg
YGDib6GvKeh92j0LaGqGbnAsseXjd11jWXTef5j5wqfgrh2AYwaAS5Y1HKzIM/zrrNBhp
sgutYhBTuZf2GvirCmAIEYQ10UdW9zIDV+ILj7p1E9gxrCmIAAADBA0bv80P6ZVw/xS0o
B9nGq9nwFNs9TJHQCB/ON43d0BkFLMoGDxHeMN03sMcjtgBkmpXnYDJ3QTZPtC/jIlyge5
TcyCJH0d8pxmkGPbT2FMNgjiIM+M5rfhAB+rSwYQg32v/XMH8vi4CB/YaBaY9HbaebIETj
AAL4F44SfUpuI00PK+VmnXbucLvcyQPAurfrWBUQbYqe1jhnXPzKN7Rv60HRCbkBW2BcON
lCxqAE2Ixa9E1mcd4xjYCWFXC4eZLEhwaAAAMEA18PXMswkQa/zoBvQKh22udd7QGVYSTzR
CjA+5PnNE4X0Sg9z5rSZ0f2bYoDHRPB7R+pysWDu9sFRZon48Aq2v3HjJ/FxLyeyjIAimo
r9C1Swaupp6MdlUQMPHaYa/IR+nVNSFz7qPb+Ss0t914L7jv3scWUc0sCDtcRrAo+itU40
02SpZV+J26E0+14kVhJhGtFeZp11YyJ0r+vu5aC57RXWnoA/ukm2QHYrB7GTGWOVSN5CzG3
NnHEHLH6cyHWi3AAAAFHViDw50dUBpcC0xMC0wLTEzLTUxAQIDBAUG
-----END OPENSsh PRIVATE KEY-----''' > sv2.key
```

```
chmod 600 sv2.key
```

```
ssh ubuntu@3.223.243.38 -i sv2.key
```

## Putty

Save the following key as sv2.ppk

```
PuTTY-User-Key-File-3: ssh-rsa
Encryption: none
Comment: ubuntu@ip-10-0-13-51
Public-Lines: 9
AAAAB3NzaC1yc2EAAAADAQABAAQgQCDA1vGZhGuMbbdnf5dF7vBDkBSihBrrw
3C4xiHoTKU5+ZaH8oyyW/jn2R2bwVG2yRC51ThRzGDbSi866zcPQLxFlsshWzd
oWjQcdB+MDGDWQUXABxhQUrTx01c17G740L2KraoQT0qvXQ1bA0odBww9d6vad8T
veBd6xxHFJQ5JUCgS67G0J3/cy5tSoVcptFK1wMSR18261Uw3Sg4bM0eu+ze+fTe
P0B5aiwtLay14tQ0xpXZIK9pawng+pSkbrxaYCBWwzSxGrRBmSZDbHho2NCS4KL7
xCMf2/wX/ydUUDno5L2naWMMwr51qEvbwFsp4YEdUlldNjCwxU/quiFFsghKw7bK
1uGf6pLRSYlK8oe3EZ18T2Amd2eSj6Ayyjd7UHVBR2qIj711bYyt92uFpJbpV4P
faKk3nQ2DPT3MJNJK6qt0xaQ0ho7BVmKwv8Pg0ZYgalp73W/Q2RR3U7PKVctiQ0z
soJPyWmLGHZSVd2MV+5x/lqCVikMViE=
Private-Lines: 21
AAABGcSeICfnQm7EfAb5gMheqtdURBGfhxZU3Vi6DemfKBv3noKHTddz3cMtKKiD
q1f0S9tgEzpmSxk9Yz9w4aGVta7FrpcyC/HAWggm14dfj0BFANLUy6ADHG4uCIt9
nR+j4xWSNku/s6JuS0Skj5G+C/QoNI6MCPam52oCKA/mI2+DmYpHPfFgLEOST019
g11pcr2hnr99UIreELOj0k1u0Jgft/579u82RA5vyKkC6Ihhk9rJkNxtFYjx+qnJ
snLH037cuPUtCyEiicIA003ae3cPev6Pv40LgSvdNHFnhHd4V8s0QID7Z2+7K1D7
o/U/svpPGOFoFgiefHfLiopxu2BxY0I7yh532EbHAAAttt8yQeTY4ymt8Mga1owBh
hoz2fq5dUov5+L4Xr9NfEXmyvgqVdz9MZdfLZ30hzan19nfg72AbJKEYTRFQQP4
01YFGofXV3GgJLTmepVaerPs1/awtaInKiyymsyKQodYaDXw/aaKGniogTuUHLn
fchKWQAAAMEA5u/zQ/plXD/FLSgH2car2fAU2z1MkdAIH843jd3QGQUsyYNeF4w
07ewxy02AGSa1edgMndBNk+0L+MiXKB7lNzIIkc53ynGaQY9tPYUw2COIgz4zmt+
EAH6tLBhCDfa/9cwfY+LgIH9hoFpj0dtp5sgROMAAvgXjhJ9Sm4g7Q8r5Waddu5w
u9zJA8C6t+tyFRBtip6W0GfE/Mo3tG/rQdFxuQfBYEKg2ULGoATYjFr0TWZx3jGN
gJYVcLh5ksSHAAAwQDXw9cyzCRBr/OgG9AqHba513tAZVhJPNEKMD7k+c0Thc5K
DP3mtJnR/ZtigME8HtH6nKxY072wVFmfjwCra/ceMn8XEvJ7KMgB0aiV0LVLBq
6mn0x3VRAw8dphr8hH6dU1IXPuo9v5Kw632Xgvu0/exxZRw6wI01xGsCj6K1TjTT
ZK11X41noQ77XiRUmEka0V5mmXVhiPSv6+7IoLntFdaegD+6SbZAdisHtMZy5VI3
kJmDc2ccQcsfpzIdaLcAAADBAKxV0BdkNKRxPIiSsCGqM9KUe+fhV00m8FVxI1L1
OdE30NSvi4z7hTTW4pu3+bPDat5vPGTlDbBFosbYC8zRgNB+FIgbnksURpwj3e7
L0ybz4Yc3pMw1bPar7/CCVwb0N7PyxMjACBgZ0hv0a8p6H3aPQtoaoZucCyx5eN3
WWNZcVN5/mPnCP+BGHYBjBoBL1jUcrMgz/Ous0GGmyC61iEF051/Ya+KsKYAgRhD
U5R1b30UNX4guPunUT2DGBFyYg==
Private-MAC: 8020f906416f8051139859d5271859a68243ce35f043d09a92d8527c4ed32ba9
```

Select this key and connect to Host Name: ubuntu@3.223.243.38