
AWS
re:Invent

MGT401

Automate anything with AWS Systems Manager

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AWS

AWS re:Invent

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Talk workflow

Operate!

Automate!

AWS Systems Manager to the rescue!

The demo you have been waiting for!



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Viktoria

Operate!



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What are operations?

“… people and management processes associated with IT service management to deliver the right set of services at the right quality and at competitive costs for customers.”

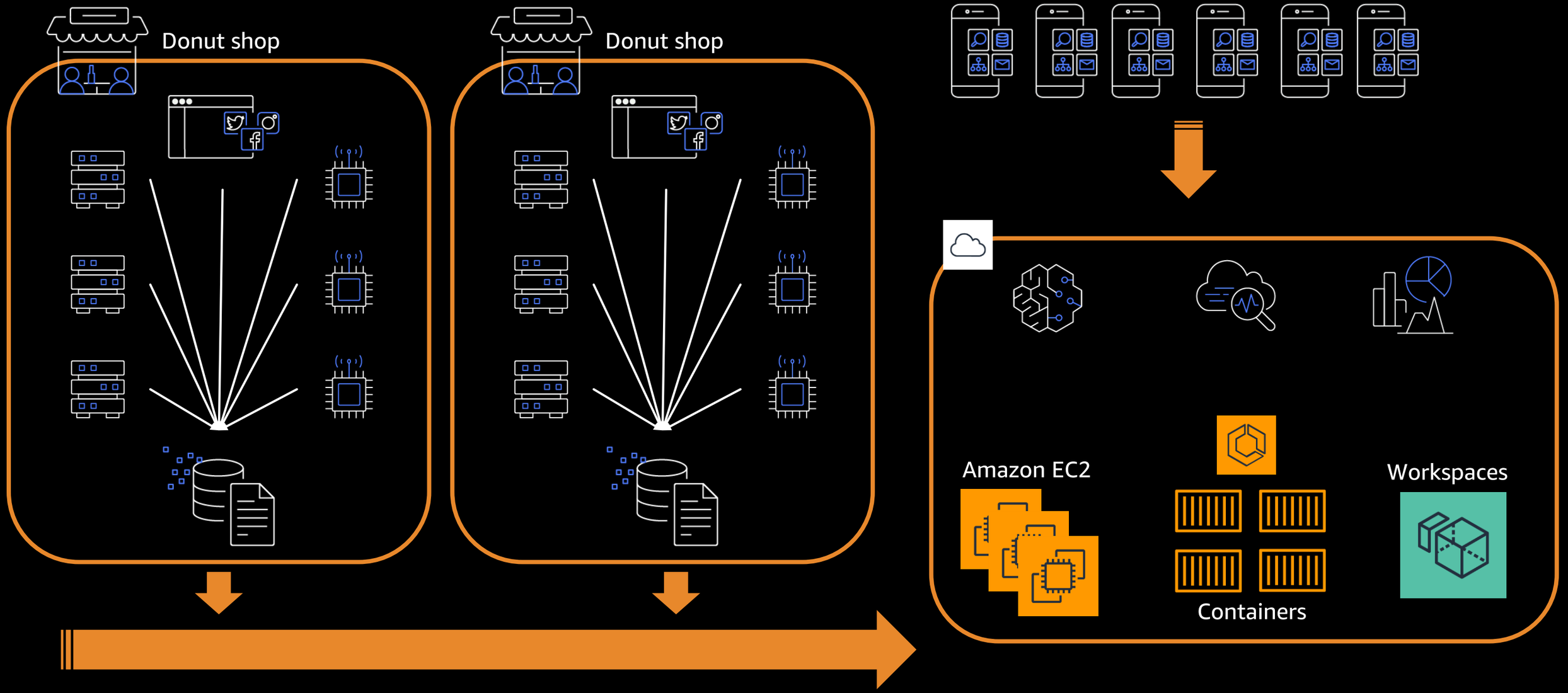
Gartner Glossary



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Operations in our Donut empire!





Viktoria

Automate!



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Automation

From Wikipedia, the free encyclopedia

Automation is the technology by which a process or procedure is performed with minimal human assistance.[1] Automation[2] or automatic control is the use of various control systems for operating equipment such as machinery, processes in factories, boilers and heat treating ovens, switching on telephone networks, steering and stabilization of ships, aircraft and other applications and vehicles with minimal or reduced human intervention.

Source: https://en.wikipedia.org/wiki/Automation

What was your first bit of automation?

“Complex systems bring value to automation”

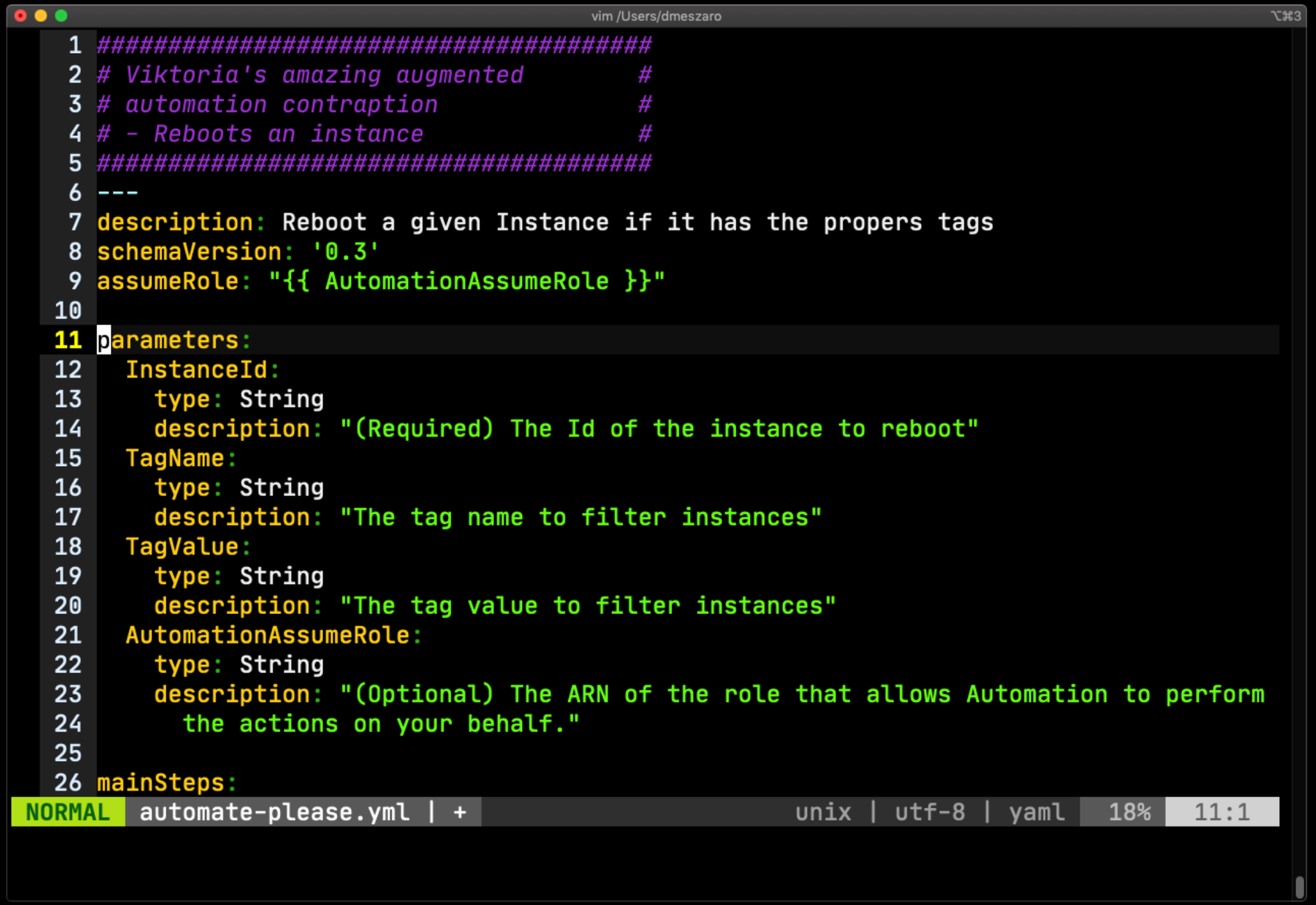
– Someone



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But, how does one automate stuff?

Well, with code


vim /Users/dmeszaro
⌥⌘3
1 ##
2 # Viktoria's amazing augmented   #
3 # automation contraption   #
4 # - Reboots an instance   #
5 ##
6 ---
7 description: Reboot a given Instance if it has the propers tags
8 schemaVersion: '0.3'
9 assumeRole: "{{ AutomationAssumeRole }}"
10
11 parameters:
12   InstanceId:
13   type: String
14   description: "(Required) The Id of the instance to reboot"
15   TagName:
16   type: String
17   description: "The tag name to filter instances"
18   TagValue:
19   type: String
20   description: "The tag value to filter instances"
21   AutomationAssumeRole:
22   type: String
23   description: "(Optional) The ARN of the role that allows Automation to perform
24   the actions on your behalf."
25
26 mainSteps:
NORMAL automate-please.yml | + unix | utf-8 | yaml 18% 11:1

The goal of automation is to make our lives easier!



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AWS Systems Manager automation capabilities!



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What exactly do we need to automate?

Hmm… What to automate?

- Patching
- Provisioning
- Package installation
- Inventory Collection

- Access logging
- Inventory Collection
- Golden Image (AMI) Creation
- Remediation steps

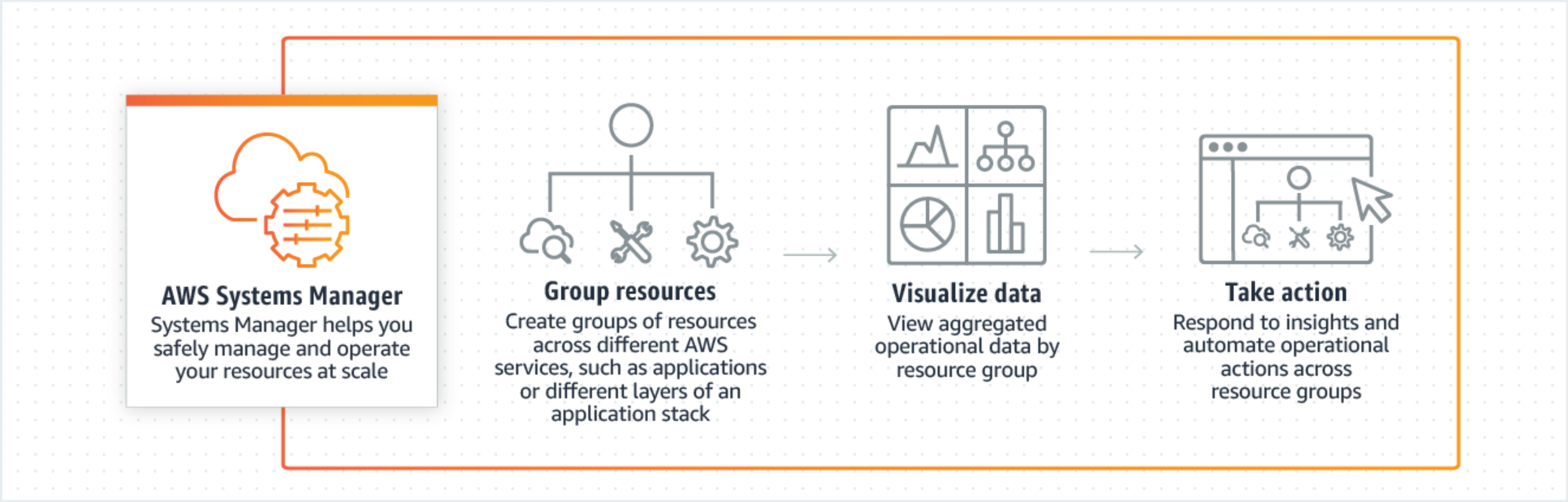
AWS Systems Manager



- Automate
- Improve Visibility and Control
- Manage Hybrid
- Security and Compliance
- Connect with ITSM/ITOM

AWS Systems Manager

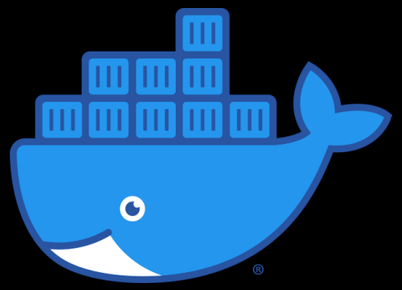
Group → Visualize → Take Action



Hmm… What to automate?

- Patching
- Provisioning
- Package installation
- Inventory Collection

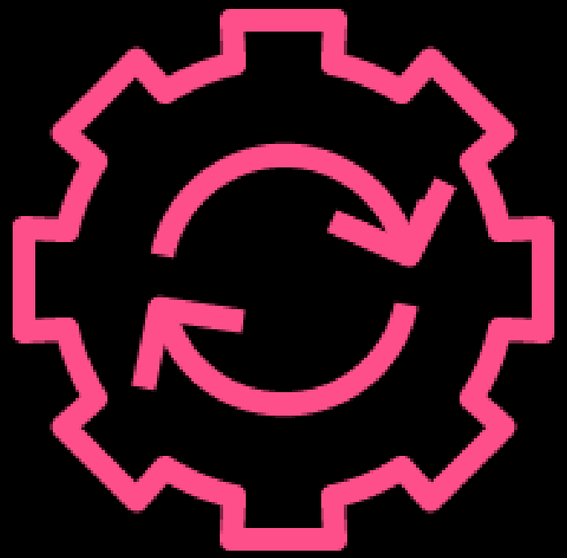
- Access logging
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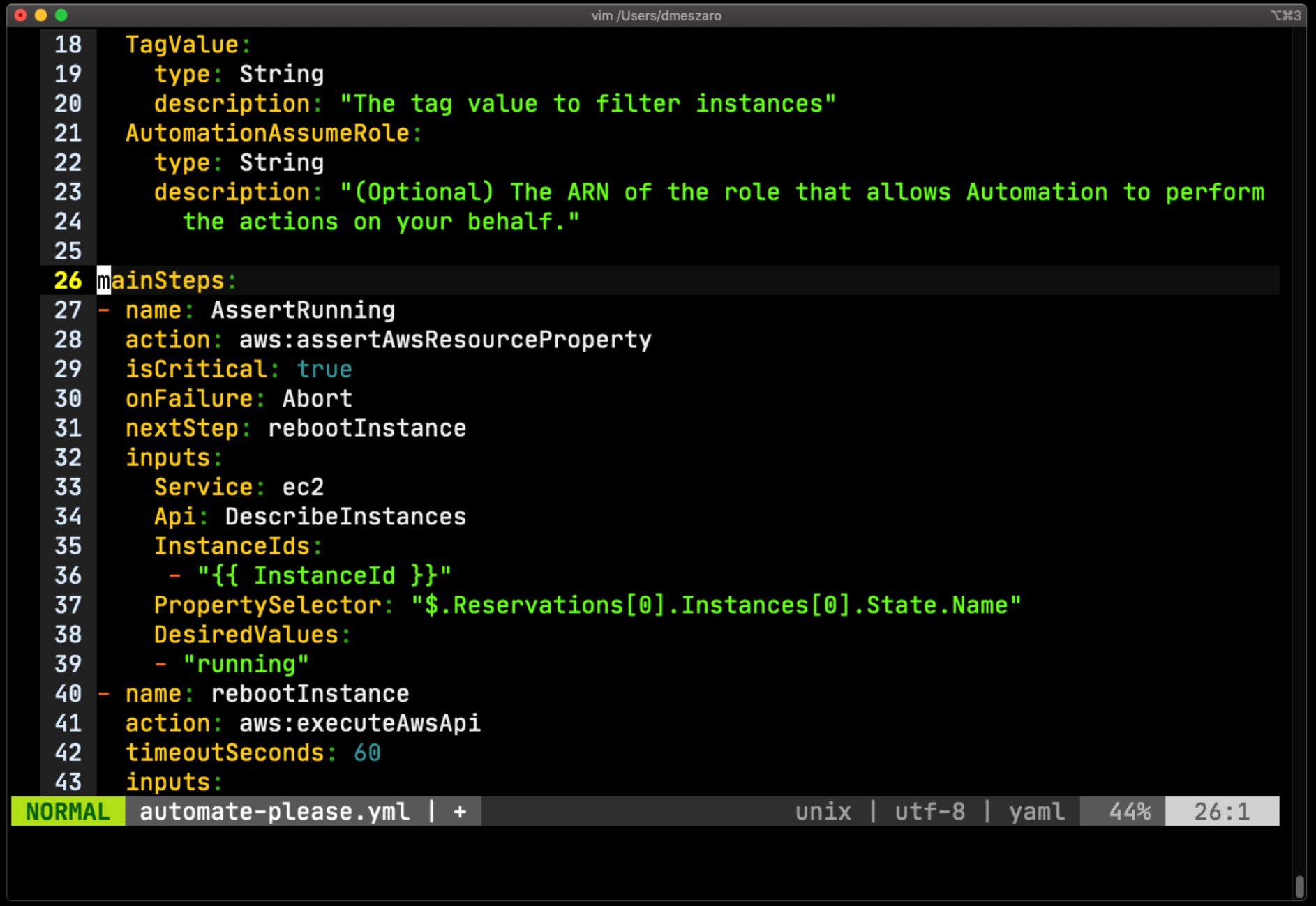


Viktoria

Systems Manager Automation



- Safely automate common and repetitive IT tasks!
- Create Runbooks
- Trigger on demand or on events


vim /Users/dmeszaro
⌥⌘3
18 TagValue:
19 type: String
20 description: "The tag value to filter instances"
21 AutomationAssumeRole:
22 type: String
23 description: "(Optional) The ARN of the role that allows Automation to perform
24 the actions on your behalf."
25
26 mainSteps:
27 - name: AssertRunning
28 action: aws:assertAwsResourceProperty
29 isCritical: true
30 onFailure: Abort
31 nextStep: rebootInstance
32 inputs:
33 Service: ec2
34 Api: DescribeInstances
35 InstanceIds:
36 - "{{ InstanceId }}"
37 PropertySelector: "$.Reservations[0].Instances[0].State.Name"
38 DesiredValues:
39 - "running"
40 - name: rebootInstance
41 action: aws:executeAwsApi
42 timeoutSeconds: 60
43 inputs:
NORMAL automate-please.yml | + unix | utf-8 | yaml 44% 26:1

Oh yeah … hybrid, cross-Region too …



You did mention that demo?



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But wait …
there’s more!



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Augment your automation with …







New tools just released!



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Automating the right things at the right time!

INTRODUCING

AVAILABLE TODAY

AWS Systems Manager – Fleet Manager

CONSISTENT ADMINISTRATION ACROSS SERVER FLEET



Manage and troubleshoot your fleet of servers running on AWS and on-premises

Administer VM fleet without needing to remotely connect with RDP or SSH

Perform common administrator tasks from a single integrated console

INTRODUCING

AVAILABLE TODAY

AWS Systems Manager – Application Manager

MANAGE APPLICATIONS, NOT JUST INDIVIDUAL RESOURCES



Discover application resources across multiple AWS services

View operational data for your applications in a single view

Take action to remediate issues using automation runbooks

Manage AWS resources used by Amazon EKS clusters

INTRODUCING

AVAILABLE TODAY

AWS Systems Manager – Change Manager

CHANGE MANAGEMENT FOR AWS AND ON-PREMISES



Make operational changes with best practices and safety

Automate approval processes with preapproved workflows

Centrally audit operational changes across your organization

Wrap up!



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Some homework for you

- Find what things can be automated, and do it!
- Approach things through code for more predictable outcomes and repeatable experience!
- Introduce fun into IT operations, by automating them!

Thank you!

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