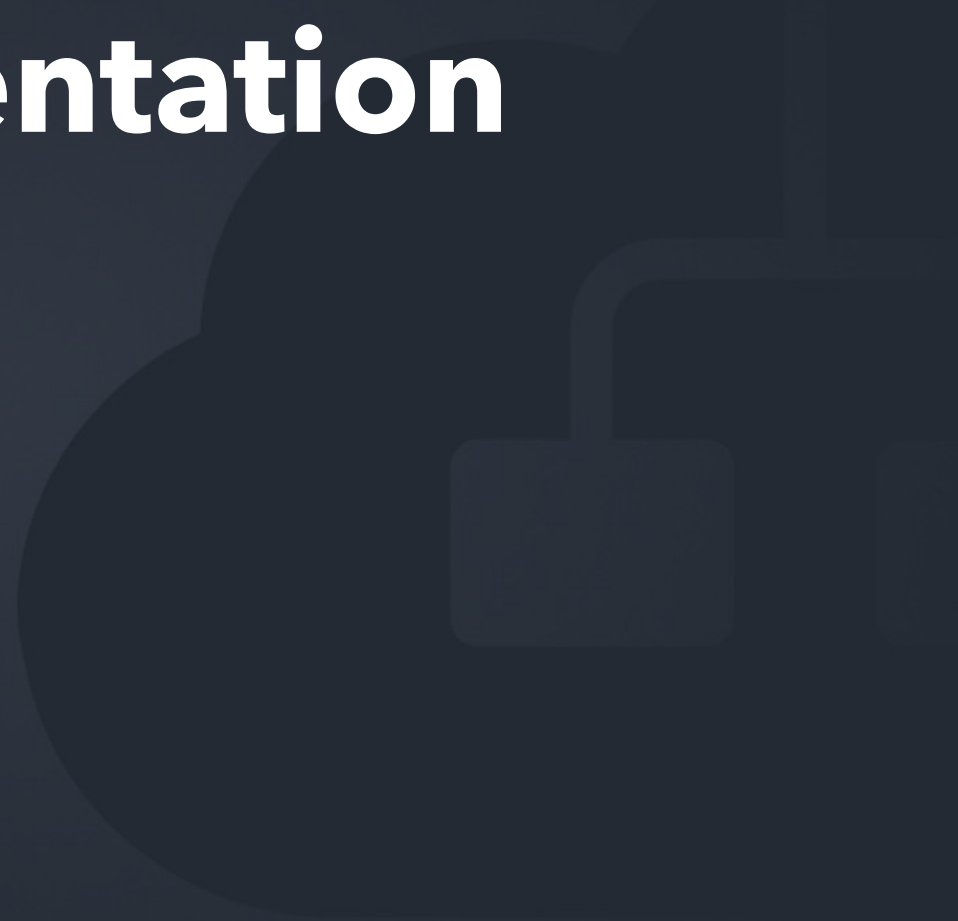


# Automate your Cloud Ops

**And spend less time doing operations**

# Documentation



# Documentation

**RunBooks**  
**Checklists**

**Application Support and  
Operations takes up to  
55% of Developer time**

# Documentation Advantages

<https://zwischenzugs.com/2017/04/04/things-i-learned-managing-site-reliability-for-some-of-the-worlds-busiest-gambling-sites/>

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**7 month kick-off**  
**10% ongoing**

**Reality**



# Reality

▶ **7 month kick-off** ▶

# Reality

▶ **7 month kick-off** ▶

**We need something  
faster**



**UNSKRIPT, INC.**





# Open Source RunBook Automation



# Open Source RunBook Automation

Based on Jupyter Notebooks

The screenshot displays the unSkript web interface. At the top, there is a navigation bar with the unSkript logo and various menu items: xRunBooks, Proxies, Executions, Events, Actions, Requests, and More. The user's name 'doug' is visible in the top right corner. Below the navigation bar, the main content area is titled 'k8s-log-healthcheck' and shows a 'Proxy: Staging' status. A toolbar includes 'Undo', 'Save', 'Add', 'Parameters', 'Close', and a 'Run XRunBook' button. The main content area is divided into two sections. The left section, titled 'unSkript Internal', shows a 'Completed' status and a 'Run Action' button. The right section, titled 'K8s Log healthcheck', contains a 'Kubernetes Healthcheck Runbook' section with a description: 'This runbook grabs all of your K8s pods, reads the logs from them, and then output any WARNING logs from the last hour.' Below the description is a list of steps: 'Step 1: Get all of the pods', 'Step 2: get all of the logps for each pod', 'Step 3 parse the logs for warnings in the last hour', and 'Step 4: if there are warnings, send a Slack alert'. The right section also features a 'Kubectl list pods' configuration panel with a 'Credential' dropdown set to 'DevEKS', a 'Print Output' checkbox checked, and a 'Required' section with a 'Namespace' input field containing the text 'namespace'.

<http://runbooks.sh>

# Jupyter Notebooks

- **Online - Collaborative**



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- **Python: No Domain Specific Language**

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# Jupyter Notebooks

- **Online - Collaborative**
- **Python: No Domain Specific Language**
- **Documentation via text/markdown**
- **Easy Automation**

# Getting Started

**Runbooks.sh**



# Getting Started

**Runbooks.sh**

**Repository of 100s of RunBooks and  
Actions**



# Example RunBook

## Kubernetes Healthcheck Runbook

▶  Kubectl list pods ⚙️ Configurations ▶ Run Action ⋮

▶  Kubectl get logs ⚙️ Configurations ▶ Run Action ⋮

▶ parse dict of logs ⚙️ Configurations ▶ Run Action ⋮

▶  Post Slack Message ⚙️ Configurations ▶ Run Action ⋮

# Example RunBook

## Kubernetes Healthcheck Runbook

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▶  Post Slack Message ⚙️ Configurations ▶ Run Action ⋮



# Example RunBook

## Kubernetes Healthcheck Runbook

▶  Kubectl list pods

 Configurations

 Run Action



▶  Kubectl get logs

 Configurations

 Run Action



▶ parse dict of logs


 Configurations

 Run Action



▶  Post Slack Message

 Configurations

 Run Action



# Example RunBook

## Kubernetes Healthcheck Runbook

▶  Kubectl list pods ⚙️ Configurations ▶ Run Action ⋮

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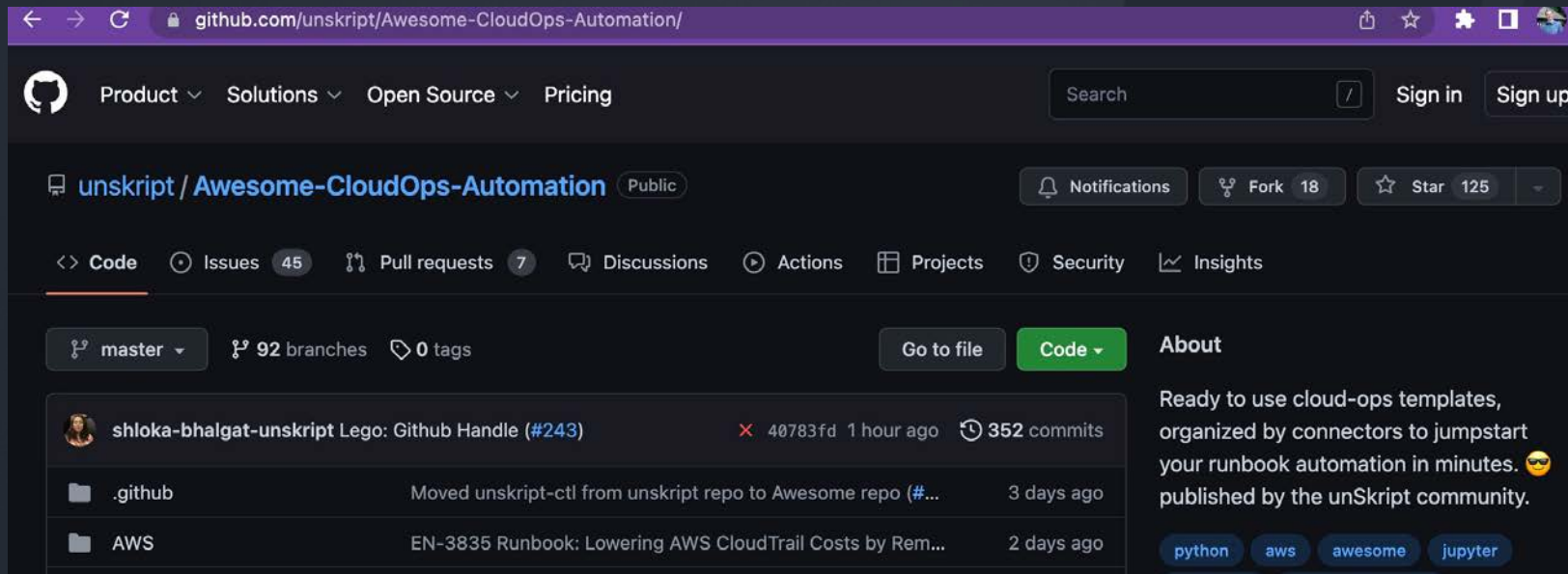
▶  Post Slack Message ⚙️ Configurations ▶ Run Action ⋮

**RunBook in PR  
to Open Source**



# Getting Started

## Runbooks.sh

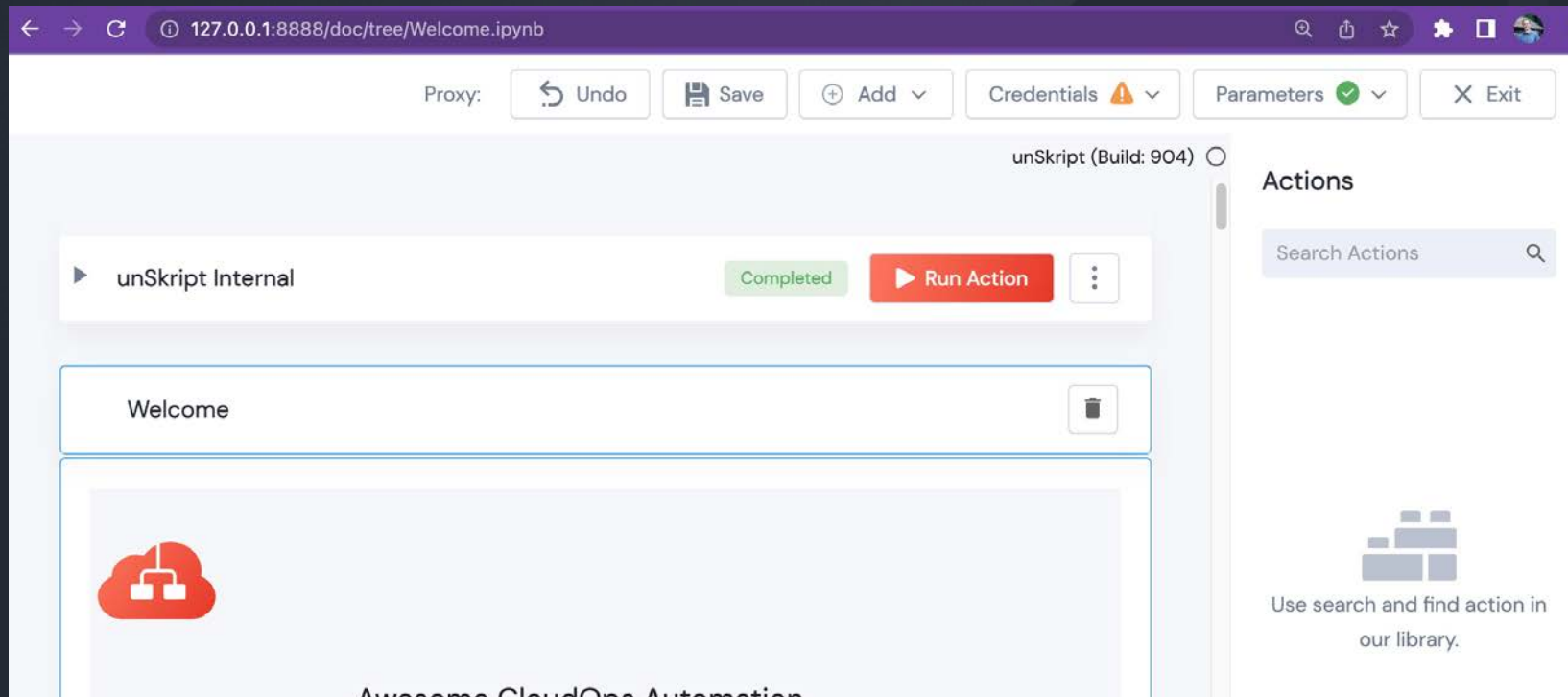


The screenshot shows the GitHub interface for the repository 'unskript / Awesome-CloudOps-Automation'. The page includes a navigation bar with 'Product', 'Solutions', 'Open Source', and 'Pricing' menus, a search bar, and 'Sign in' and 'Sign up' buttons. The repository name is displayed as 'unskript / Awesome-CloudOps-Automation' with a 'Public' badge. Below this, there are buttons for 'Notifications', 'Fork 18', and 'Star 125'. A secondary navigation bar contains links for 'Code', 'Issues 45', 'Pull requests 7', 'Discussions', 'Actions', 'Projects', 'Security', and 'Insights'. The 'Code' section shows the 'master' branch with '92 branches' and '0 tags', along with 'Go to file' and 'Code' buttons. The commit history table lists a commit by 'shloka-bhalgat-unskript' titled 'Lego: Github Handle (#243)' with 40783fd hash, made 1 hour ago, and 352 commits. Below it are two folders: '.github' with a commit 'Moved unskript-ctl from unskript repo to Awesome repo (#...)' from 3 days ago, and 'AWS' with a commit 'EN-3835 Runbook: Lowering AWS CloudTrail Costs by Rem...' from 2 days ago. An 'About' section on the right describes the repository as a collection of cloud-ops templates organized by connectors, published by the unSkript community. At the bottom of the 'About' section are tags for 'python', 'aws', 'awesome', and 'jupyter'.

<http://runbooks.sh>

# Getting Started

## Runbooks.sh Docker Install



The screenshot displays the unSkript web interface in a browser window. The address bar shows the URL `127.0.0.1:8888/doc/tree/Welcome.ipynb`. The interface includes a top navigation bar with buttons for 'Proxy', 'Undo', 'Save', 'Add', 'Credentials', 'Parameters', and 'Exit'. Below this, the main content area shows a 'Welcome' message and a 'Run Action' button. A sidebar on the right contains an 'Actions' section with a search bar and a message: 'Use search and find action in our library.' The interface is titled 'unSkript (Build: 904)'.

<http://runbooks.sh>

# Demo



# RunBook

## AWS Service Quotas



# RunBook

## AWS Service Quotas

<b>ec2</b>	<b>EC2-Classic Elastic IPs</b>	<b>L-CEED54BB</b>	<b>5</b>
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# RunBook

## AWS Service Quotas

<b>ec2</b>	<b>EC2-Classic Elastic IPs</b>	<b>L-CEED54BB</b>	<b>5</b>
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aws count of elastic IPs used

Completed Configurations Run Action ⋮

```
Count of ips: 5
{'Instances': 5}
```

# RunBook

## AWS Service Quotas

1. Get Service Quota
2. Get Usage
3. Check the difference
4. Warn Team limit is approaching Or: Request a higher quota

# Summary

- **RunBooks: Internal Documentation**
  - **Improve outcomes**
  - **Lower MTTR**
  - **Improve team collaboration**
  - **Can be Automated**



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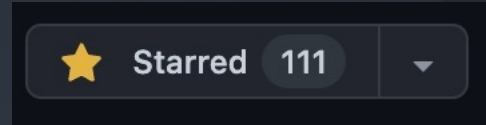
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- **unSkript**
  - **Open Source**
  - **Jupyter Notebooks**
  - **Hundreds of automations built in**

# Resources

- **unSkript**

- <http://runbooks.sh>
- <https://unskript.com>



- **Things I Learned Managing Site Reliability for Some of the World's Busiest Gambling Sites**

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**Doug Sillars**  
**Head of Developer Relations**  
**@doug\_sillars**

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**Learn more at:  
unSkript.com**