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Summary

The purpose of this lab is to get you started with creating your first SLO. We are using Pingdom and Nobl9 which are both free products with no credit card requirement to start from zero to create our first SLO.

Prerequisites

- Create a Nobl9 free account
 - <u>https://app.nobl9.com/signup/</u>

Part One: Create Pingdom Account

During this stage we focus on getting our Pingdom environment working and creating a Ping monitor to start the flow of data.

For this you first need to open a free account with Pingdom, please follow the link below:

• <u>https://www.pingdom.com/sign-up/</u>

Sign up to start your 30 day free trial

Nador	
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Last Name	
Mortazavi	
nmortazavi	anable com
	enopricom
Password	
Password	
Password United Sta	ites
Password United Sta	tes
United Sta	start FRFF TRIAL" you are agreeing to
United Sta By clicking "	stes
United Sta By clicking " SolarWinds	start FREE TRIAL", you are agreeing to Software Services Agreement (SSA)
United Sta By clicking " SolarWinds	tes
Password United Sta By clicking " SolarWinds	tes

After entering your information, click on start a Free Trial which will navigate you to the next page where you enter some more information.

Account inf	ormation
Name *	Nader Mortazavi
Country *	United States
State *	Oregon
Time Zone *	GMT-6 - Central Time (US & Can.), Mexico
How would	you like to be alerted? (optional)
How would SMS/Text Email	you like to be alerted? (optional) +1 mortazavi@nobl9.com
How would SMS/Text Email What would	you like to be alerted? (optional) Image: state of the second state of the
How would SMS/Text Email What would URL	you like to be alerted? (optional) Image: state of the state of t

After you navigate to the next page you will see that you already have one Uptime monitor created. Click on the Uptime box which will navigate you to the details page

ŧ	Pingdom			# <u>8</u>
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	SEARCH PINGDOM HELP If you have any questions or need help you can try to search our help center.	ACCOUNT LINKS MISC LINK Subscription Email repo Integration	S SUPPORT LINKS ta Diogdom.help s Getting.started Knowledge.base EAQ	

Next you will see that your Site name is showing but there is no data yet since the default ping time is set to 5 minutes. Let's change that to 1 minute. Once you see the monitor you created in the next page, click on monitor name and then click on "Edit Check" on the top right.

ŧ	Pingdom > Uptime > Nobl9		
G	Last 24 hours 🗘 🔳 Probe filter 👻		< >
1	Nobl9		Download PDF Edit check
Ċ	type: Hi H; nost: www.nools.com	Max: 293 ms, Min: 293 ms, Avg: 293 ms	\smile
Ø	400		DOWNTIME
0	300		(0 outages)
	200		

Once you navigate to the next page, change the Check Interval from the default 5-minutes to recommended 1-minute and hit Modify Check.

Name of check:	Nobl9		
Check interval:	1 minute		
Check type:	HTTP(S)		
		Optional	Required
URL/IP:	https://	www.nobl9.com/	
Test from:	Default (North North Amorica	America and Europe)	
Test from:	 Default (North North America Europe 	a America and Europe) a	
Test from:	 Default (North North America Europe Asia Pacific 	a America and Europe) a	

We are not finished with everything we need to do in Pingdom.

Part two: Create a Data Source in Nobl9

In this stage, we are going to login to our Nobl9 instance and create a data source for Pingdom. We still need information from your pingdom account so please stay logged in. For this part there is extensive documentation at https://docs.nobl9.com/ just in case you need further guidance for accomplishing the tasks.

Once you login to your account you need to create a data source as the first step and connect the Pingdom instance to Nobl9. Below are the instructions:

- 1. Navigate to the Integrations section of the web UI.
- 2. Click the 🕂 button on the Sources tab to define a data source.
- 3. Select Agent for the connection type and configure the data source.
- 4. Click the Add Data Source button.

You should now be seeing this page:

elect a data sol	urce to add serv	vices and metrics				*
₩ ₩	0		L.	DATADOG		
Amazon Managed rvice for Prometheus	AppDynamics	Google BigQuery	Amazon CloudWatch	Datadog	Dynatrace	
	Beto	angraphite	Beto	A	New	Nobl9 can run sources using two connection methods:
	***			$\langle \rangle$	Near	Using Direct connection Nobl9 can access your
Elasticsearch	Grafana Loki	Graphite	Instana	Lightstep	NewRelic	server by connecting directly over the internet. This method is less secure because you will need to open the port that is running on for Nobl9 to connect.
				splunk>	splunk>	 Running connection through an Agent means that special inbound access to your network is not needed, and Nobl9 does not have to store
OpenTSDB	Pingdom	Prometheus	Amazon Redshift	Splunk	Splunk Observability	Adding Data Sources to a Service (vi
Beta	\sim					Agent)
s u mo						Follow the on-screen instructions to run the agen
Sumo Logic	ThousandEyes					 Samples are provided for a Kubernetes Deployment and a simple Docker run command
						 Run the agent in production clusters or in a location that can access production metrics.
						 Run the agent in your local Docker environment at first for ease of troubleshooting.
						Overview of the Sources
						Source Direct Agent Access
						CloudWatch Y AWS credentials required
						AppDynamics Y Direct access to the

CANCEL

Click on the Pingdom data source and choose the Direct connection. There is some information that you need to provide to get this connection established.

Go back to your Pingdom account and click on Setting and then at the bottom of the list choose "Pingdom API".



In the next page, click on "Add API Token" Give a name to your API Key and click "Generate Token"

You should now see the page below where you can copy your new API keys into the clipboard.

API token

	iis window.	the token before yo
DhN	SOmIdXATq1 	Сору
nd e th	a test request e command line or your preferred tool to send a test request with this example cURL request. Need r	nore help? Read mor
nd o e th ngdo	a test request e command line or your preferred tool to send a test request with this example cURL request. Need r m Help Center or in our API documentation.	nore help? Read mor
nd e th ngdc 1 2	a test request e command line or your preferred tool to send a test request with this example cURL request. Need r m Help Center or in our API documentation. 	nore help? Read mor Copy

Once you copy the Token, then start filling out the information for the Nobl9 data source integration.

API Token *		
mDhNSOmIdXA	ֈֈֈֈֈֈֈֈֈֈֈֈֈֈֈֈֈֈֈֈֈֈֈֈֈֈֈֈֈֈֈֈֈֈֈֈֈֈ	
Project *		
default		0
Display name		
SLOconf Lab		
Name *		
sloconf-lab		
Description		
Enter description		

×

Once you click on Add Data Source you should be able to see that in that connection in the Integration tab.

This will conclude the Part two of the lab

Part three: Create a Service

Before you can start creating SLOs, you have to create a project to put them in. To create a Service:

- 1. Go to Catalog > Service.
- 2. Click the 🕂 button.
- 3. Choose the Default project where you created upon creating your Data Source.
- 4. Enter a Display name (optional).
- 5. Add an optional Description.
- 6. Click the Create Service button.

MANUAL	SERVICE	

Project *	
default	Θ
Display name	
SLOconf	
Name *	
sloconf	
Labels	
Select or enter label	Φ
Description	
Enter description	

Part four: Create Your First SLO

For this part we will use the SLO Wizard on the UI to create our first SLO from the data we are receiving from Pingdom. Below are the instructions

Complete the following steps to create an SLO in the Nobl9 UI:

- 1. Navigate to the Service Level Objectives page.
- 2. Click the \bigcirc button to start the SLO wizard, and follow the five-step configuration process in the wizard.
- 3. In step 1, select the Service you created in the previous step from the drop-down list to tag the service this SLO applies to.
- 4. In step 2, choose a Pingdom as your Data Source from the drop-down list.
- 5. We will use the Threshold metric here and we need to get the Check ID from your Pingdom account. To do that navigate back to your Pingdom account and extract that ID from the URL.

••	• P	Uptime	Reports	× +													~
← -) C (ן ר (יי	https://my.pingdom	.com/app/reports/uptime	check= <mark>11262</mark>	2291						∆ ☆				* 🗆	- 🐥 - E
0	You have 3	30 days le	eft of your free trial.	Activate your subscription	on before your	trial engires to c	ontinue using Pi	Pingdom. <u>BUY NC</u>	ow								
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ඛ		Last 7	' days 💲 🔳	Probe filter 🝷		Co	y the check	k ID from hei	re						<	>]
•		Nob type: HT	19 ITP, host: www.nobl9.	com									Dow	mload PD	F	dit chec	k
¢		sec							Max: 510	0 ms, Min: 288 ms, Av	vg: 386 ms						
¢		0,8										1	None				
?		0,5										(0 outages)				
		0,3															
												10		%			
		Apr	26th			Apr	26th				Apr 26th	10	0.00	/0			
			Response time						u (Uptime 📕 Downtime	Unknown						

You can then copy that ID in Nobl9 and choose the status for your SLO

ata Source *	
ኛ SLOconf Lab (sloconf-lab)	
Netric *	
 Threshold Metric 	🔘 Ratio Metric
Check ID *	
11262291	
Status	
un tu down tu	

- 6. In step 3, choose a 1- Hour Rolling Time Window:
- 7. In step 4, select the Occurrence Error Budget Calculation Method

This is one of the most important stages of SLO creation which is where you decide what threshold and target you need to set for your SLO. There are plenty of resources that could help you with this decision **EXAMPLE LINK**

For this SLO we have some metrics that help us decide.

Max: 510 ms, Min: 288 ms, Avg: 392 ms

Based on these metrics we can create two objectives, one for something around the Average which will give us the majority of the acceptable load-time and then one closer to the Maximum that is not the ideal experience. Below are what I chose for this SLO:

+ ADD	OBJECTIVE
Objective 1	自 6
Target *	99.9 %
Experience name	
Bad	
Values * Less Than 🗸	500
Objective 2	ሰ ዓ
Target *	99 %
Experience name	
good	
Values * Less Than 🗸	300

8. In step 5, enter a Name for your objective.

Part Five: Create an Alert

This section is split into two parts, the first one we are going to create a Alert Method for the alert to be sent to, then we are going to create an alert:

Create Slack Alert Method

To set up the Alert Method in the Nobl9 UI, follow these steps:

- 1. Go to Integrations > Alert Methods.
- 2. Click the button.
- 3. Select Slack.
- Enter the URL.
 This is your <u>Incoming Webhook URL</u>. It must start with <u>https://hooks.slack.com/</u>.
- 5. Select a Project (default).

- Enter a Display name (optional).
 You can enter a friendly name with spaces in this field.
- 7. Enter a Name.
 - a. Let's call it "sloconf"
- 8. Enter a Description (optional). Here you can add details such as who is responsible for the integration (team/owner) and the purpose of creating it.
- 9. Click the Add Alert Method button.

Once you follow through the steps above, you will have an Alert Method created that will look like the below picture. Go ahead and send a test notification to Slack so you can verify that the integration is working.

DETAILS			🗣 Test	団	×	
‡ slack sloconf (sloconf)						
Project default URL *****						
LINKED ALERT POLICIES						
Alert Policy	Severity	# of Alert Conditions	Labels			
There are no alert policies linked to the alert method						

Your notification test in slack should look like this:

Demo App APP 9:43 AM Your SLO needs attention! SLO: **Timestamp:** • Name: Test SLO (test-slo) 2022-05-05 16:43:52 UTC • Labels: test-slo-label-1:test-label-1, test-slo-label-1:test-label-2, testslo-label-2:test-label-3, test-slolabel-2:test-label-4 Service: **Alert Policy:** • Name: Test Service (test-service) • Name: Test Alert Policy (test-alert-policy) • Labels: test-service-label-1:test-• Labels: test-alert-policy-labellabel-1, test-service-label-1:test-1:test-label-1, test-alert-policylabel-2, test-service-label-2:testlabel-1:test-label-2, test-alertlabel-3, test-service-label-2:testpolicy-label-2:test-label-3, testalert-policy-label-2:test-label-4 label-4 **Organization: Project:** sloconf1 default

Alert Condition(s):

Error budget would be exhausted in 18 hours and this condition lasts for 18 hours

View SLO details

Create a Simple Alert

There are three different scenarios where you can create an alert in Nobl9 for the SLO, for the purpose of this lab we are going to use the second case which looks at the remaining error budget. Here are the steps:

- 1. Navigate to the Alerts page.
- 2. Click the 🕂 button to start the Alerts Policy wizard, and follow the configuration process in the wizard.
- 3. In step 1:
 - Define your Alert Conditions by selecting one or more of the boxes and choosing your parameters.
 - The Remaining error budget is the amount left from the error budget set in the SLO. Let's set that to 25%

- Leave the Cooldown period for your Alert Policy as the default
 - Cooldown period value is mandatory, and it must be an integer value greater than or equal to 5 minutes.
- 4. In step 2, select a Project, then enter a Display name (sloconf) and a Name for the alert (this is mandatory and will be filled in automatically if you provide a display name). Let's set the severity to Medium
- 5. In step 3, select the box for the Slack alert we just created.

You can send another test alert to see how the alert will look like in Slack.

Conclusion

I'd like to thank everyone who took the time to follow this handbook to go through this lab.

Upon successful completion you should have a Pingdom account and a Nobl9 account, in the Pingdom account you should have one ping monitor and in Nobl9, you have the following:

- 1. Data Source for Pingdom
- 2. Your first SLO
- 3. Alert Method for Slack
- 4. Your first Alert