What is my cloud?

Who I am?

Web/Mobile Developer

Systems Engineer
(USFX)
(Scholarship 2010 Navarra Public University Spain)

Master Security Informatics
(Scholarship 2016 Salamanca University Spain)

Email: **vicsanjinez@gmail.com**

Twitter: **@victorsanjinez**

Github: **https://github.com/vicsanjinez**

Linkedin: **https://www.linkedin.com/in/victor-sanjinez-78484170/**

Developer Questions?

Localhost to Production

Hosting?
New Language Programming?
1M users?

Cloud Clients

Why use Cloud? (Economic)

HPE ProLiant DL380 Gen10 base server

with one Intel® Xeon® Silver 4110 processor, 32 GB dual rank memory, P816i-a storage controller, 12 large form factor chassis and 2 800W power supply

PRODUCT : 868710-B21

Partner	Availability	Price (USD)	Lease Option
PCM	In Stock	$4,539.99	from $137.79/mo*
Insight	In Stock	$4,937.99	-

4539,99 USD

Why use Cloud? (Economic)

Select Instance Type

Operating System

- Windows
- Windows and Std. SQL Server
- Windows and Web SQL Server
- Windows and Enterprise SQL Server
- Linux
- Red Hat Enterprise Linux
- SUSE Linux Enterprise Server

EBS-Optimized

Select	Name	vCPU	Memory (GiB)	Instance Storage (GB)	I/O	EBS Opt.	On-Demand Hourly Cost	Reserved Effective Hourly Cost (Savings %) *
○	t1.micro	1	0.6	--	Very Low	--	$0.020	$0.008 (60%)
○	t2.nano	1	0.5	--	Low	--	$0.006	$0.002 (66%)
○	t2.micro	1	1.0	--	Low to Moderate	--	$0.012	$0.004 (66%)
○	t2.small	1	2.0	--	Low to Moderate	--	$0.023	$0.009 (61%)
○	t2.medium	2	4.0	--	Low to Moderate	--	$0.046	$0.017 (63%)
○	t2.large	2	8.0	--	Low to Moderate	--	$0.093	$0.035 (62%)
○	t2.xlarge	4	16.0	--	Low to Moderate	--	$0.186	$0.070 (62%)
◉	t2.2xlarge	8	32.0	--	Low to Moderate	--	$0.371	$0.140 (62%)

T2.2xlarge

Why use Cloud? (Economic)

Select Billing Option

Instance Type: t2.2xlarge
Operating System: Linux
Usage: 100 % Utilized/Month

Per Instance Prices & Projected Costs (all in USD)

Select	Name	Upfront Price	Effective Hourly Cost	Effective Monthly Cost	1 Year Cost	3 Year Cost
○	On-Demand (No Contract)	---	0.371	271.72	3260.64	9781.92
○	1 Yr No Upfront Reserved	0.00	0.230	167.90	2014.80	6044.40
○	1 Yr Partial Upfront Reserved	959.00	0.219	159.86	1918.28	5754.84
○	1 Yr All Upfront Reserved	1880.00	0.215	156.67	1880.00	5640.00
○	3 Yr No Upfront Reserved	0.00	0.160	117.09	---	4215.24
○	3 Yr Partial Upfront Reserved	1951.00	0.148	108.37	---	3901.12
◉	3 Yr All Upfront Reserved	3668.00	0.140	101.89	---	3668.00
○	3 Yr No Upfront Convertible	0.00	0.184	134.61	---	4845.96
○	3 Yr Partial Upfront Convertible	2244.00	0.171	124.68	---	4488.24
○	3 Yr All Upfront Convertible	4398.00	0.167	122.17	---	4398.00

Close | Close and Save

3668 USD

Why use Cloud? (Engineering)

Auto Scaling
Load Balancing
Snapshots
Backups
ServerLess

Why use Cloud? (Engineering)

HPE ProLiant DL380 Gen10 base server

with one Intel® Xeon® Silver 4110 processor, 32 GB dual rank memory, P816i-a storage controller, 12 large form factor chassis and 2 800W power supply

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32Gb x 1024 Mb = **32768 Mb**

App → 4Mb/User = **8192 user**

100.000 users?

Why use cloud? (Productivity)

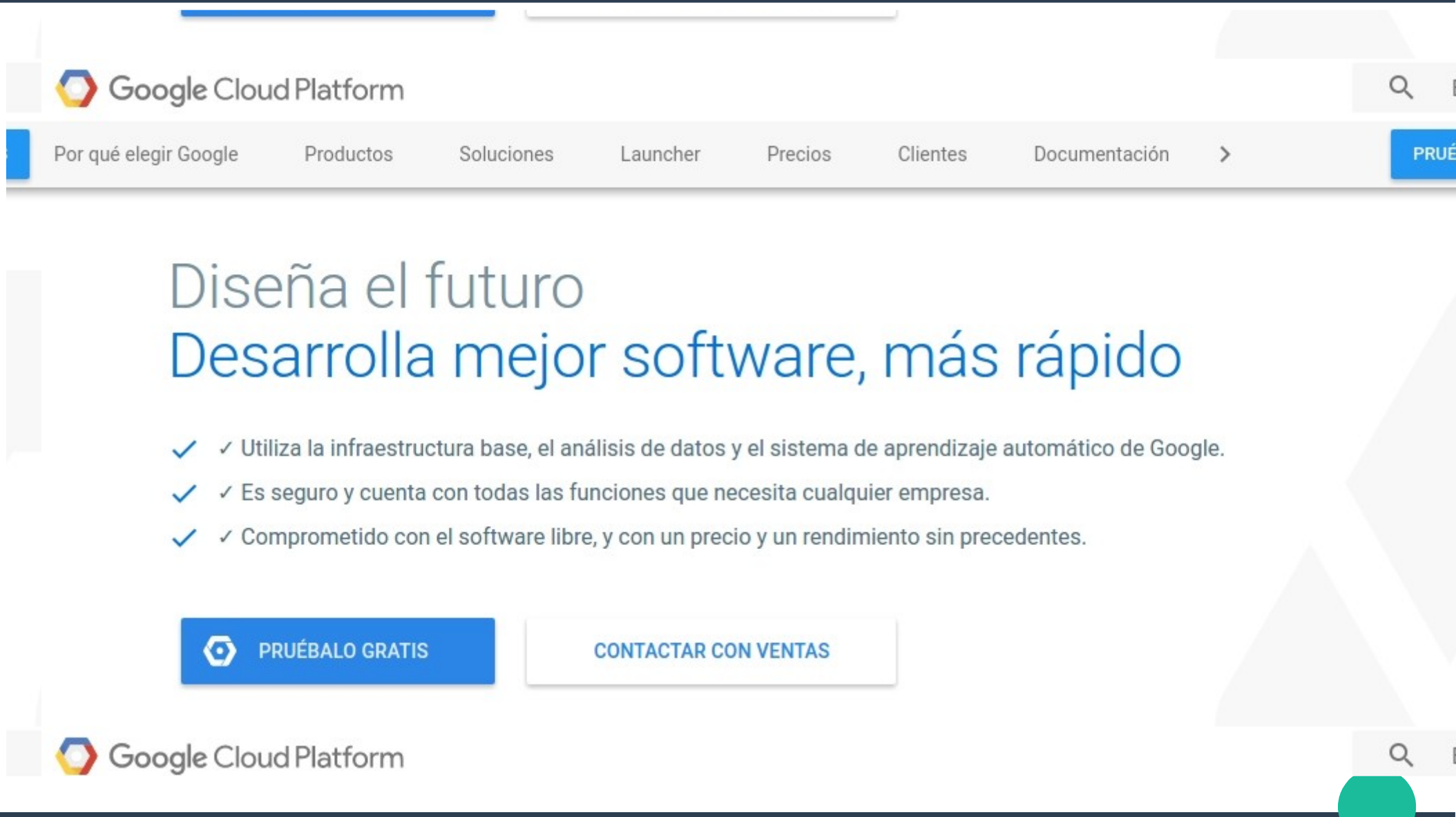
USE YOUR TIME FOR YOUR BUSINESS

Not for infrastructure

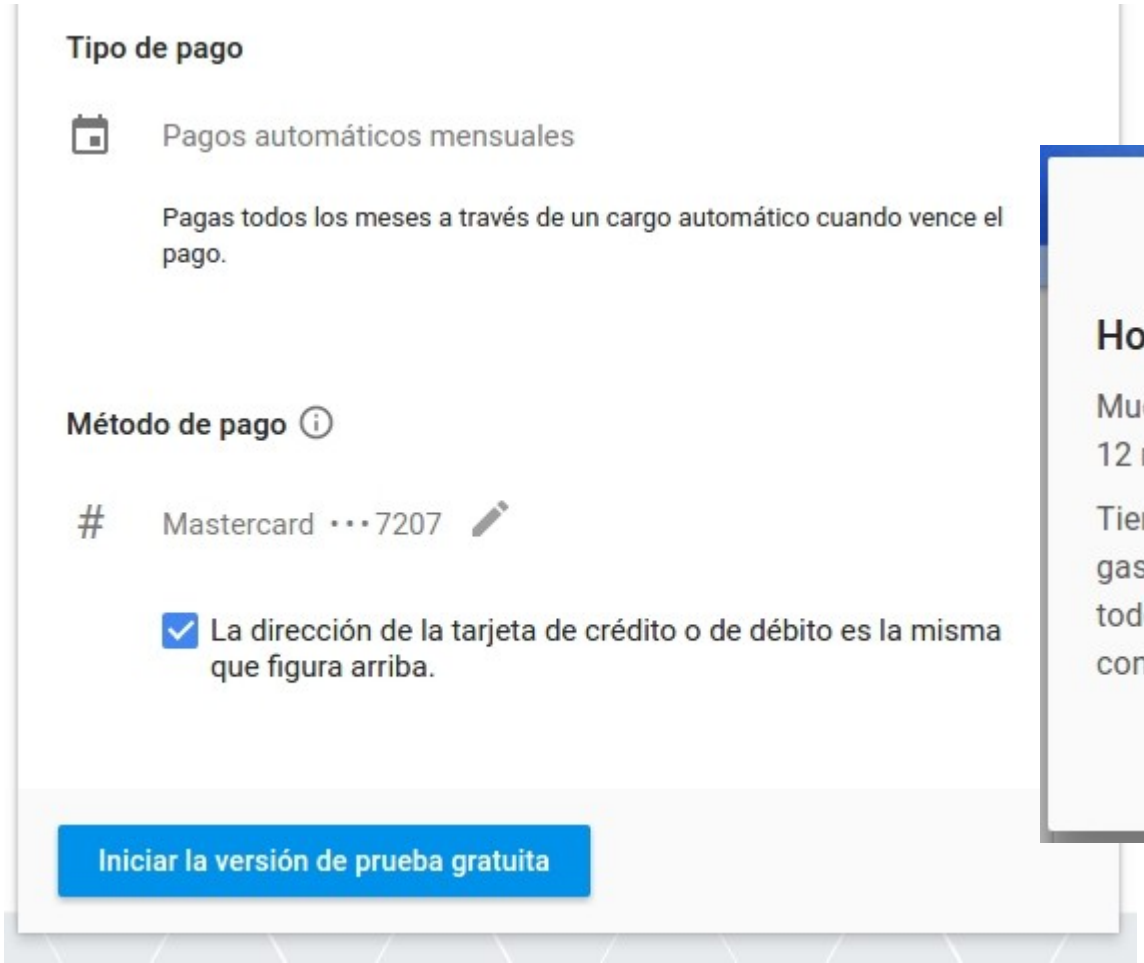
Google Cloud - Compute Engine

Google Cloud Platform

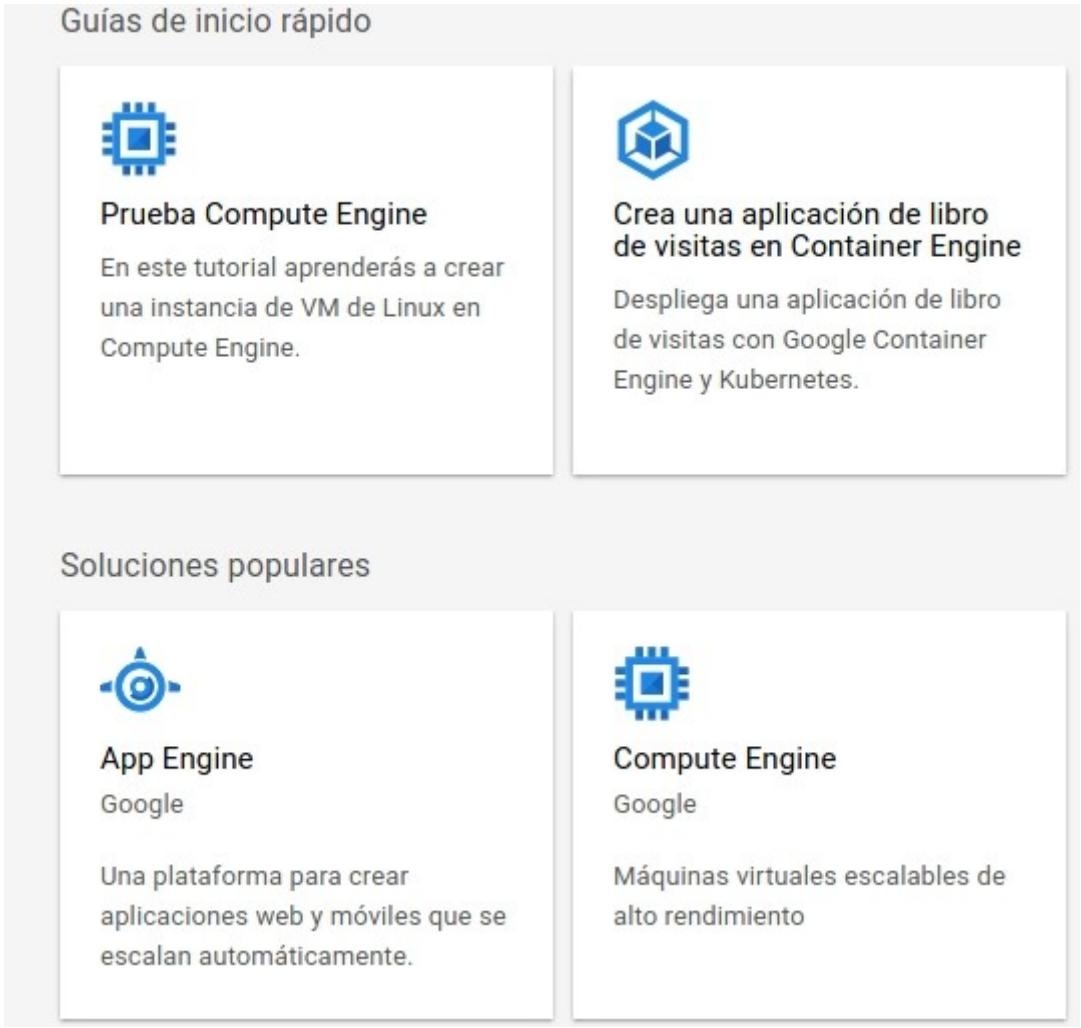
Google Cloud - Compute Engine



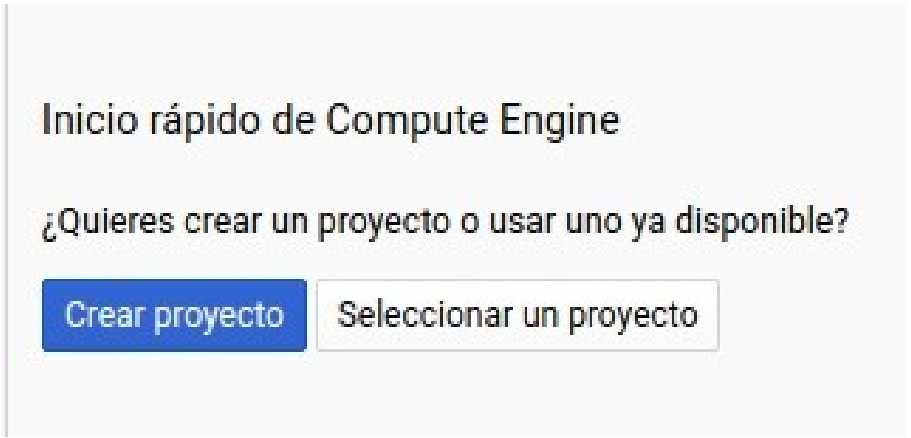
Google Cloud - Compute Engine



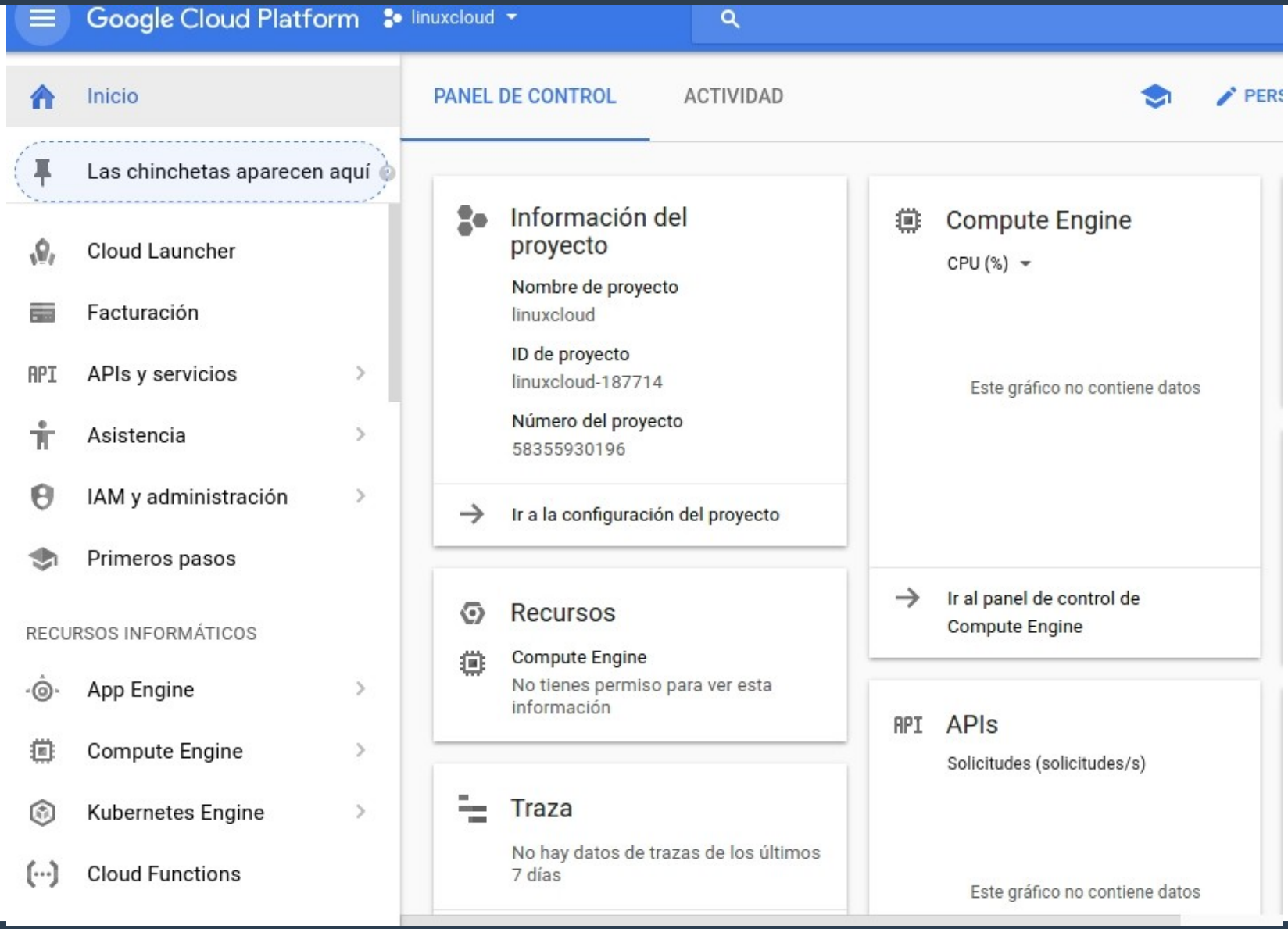
Google Cloud - Compute Engine



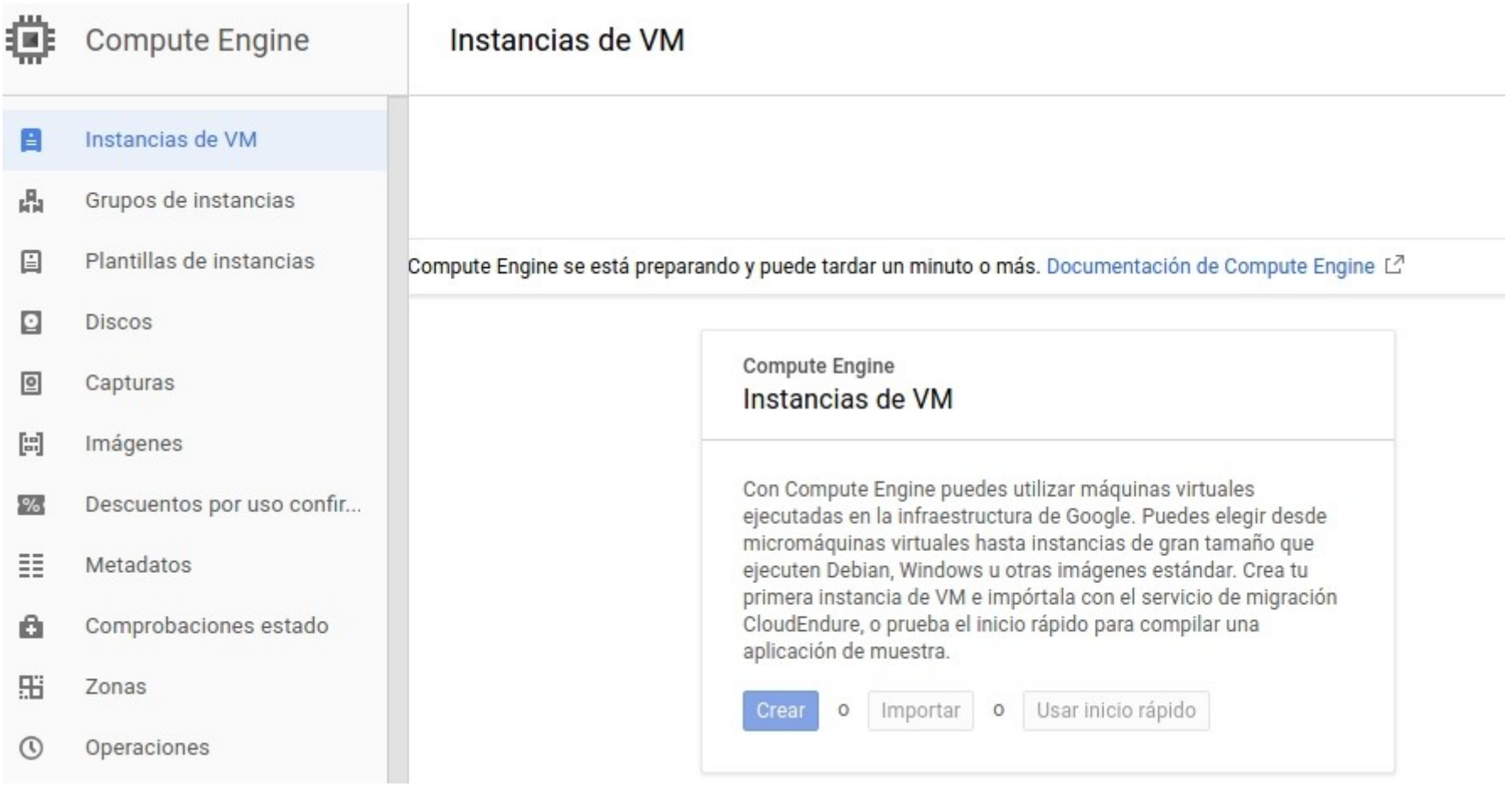
Google Cloud - Compute Engine



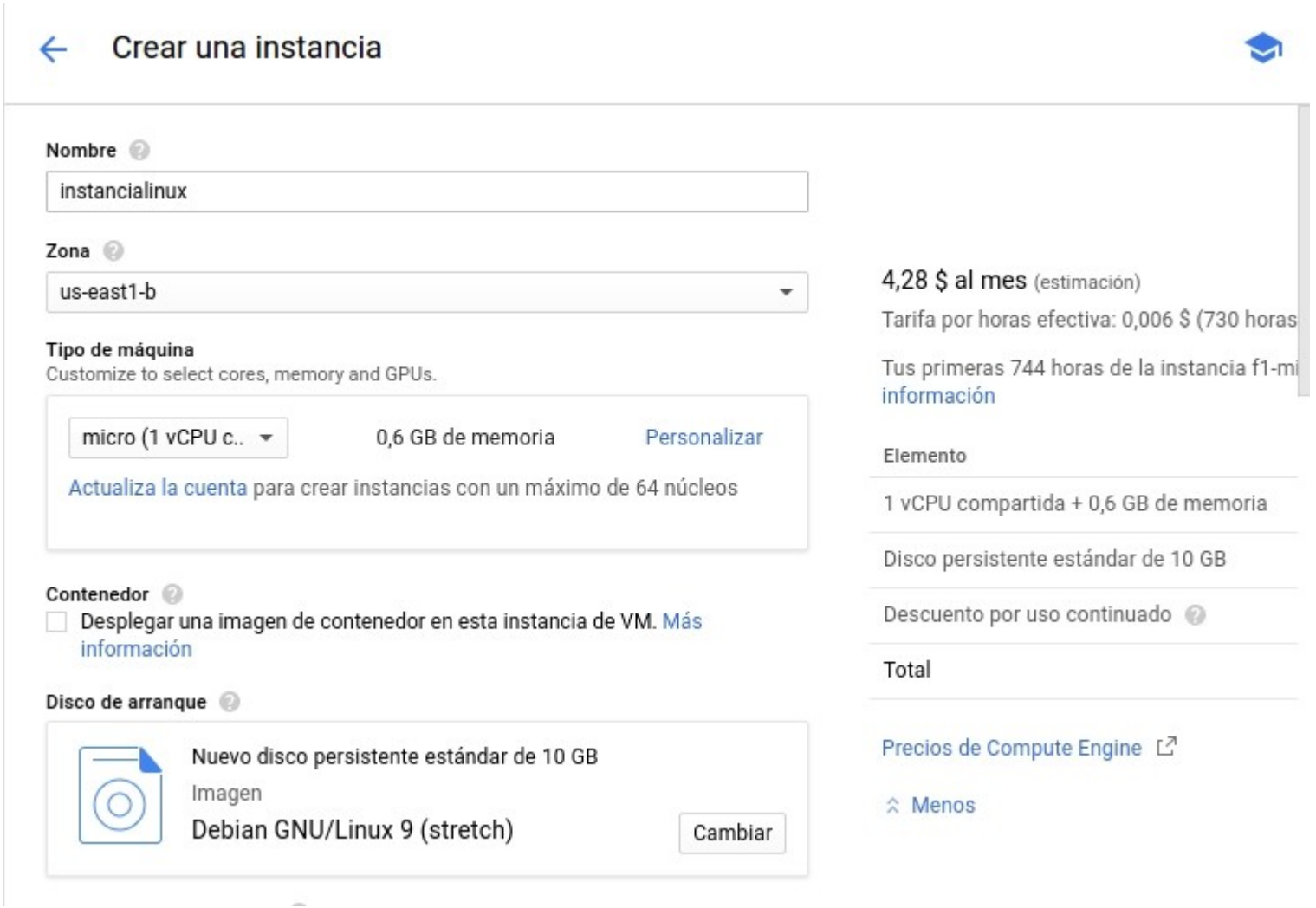
Google Cloud - Compute Engine



Google Cloud - Compute Engine



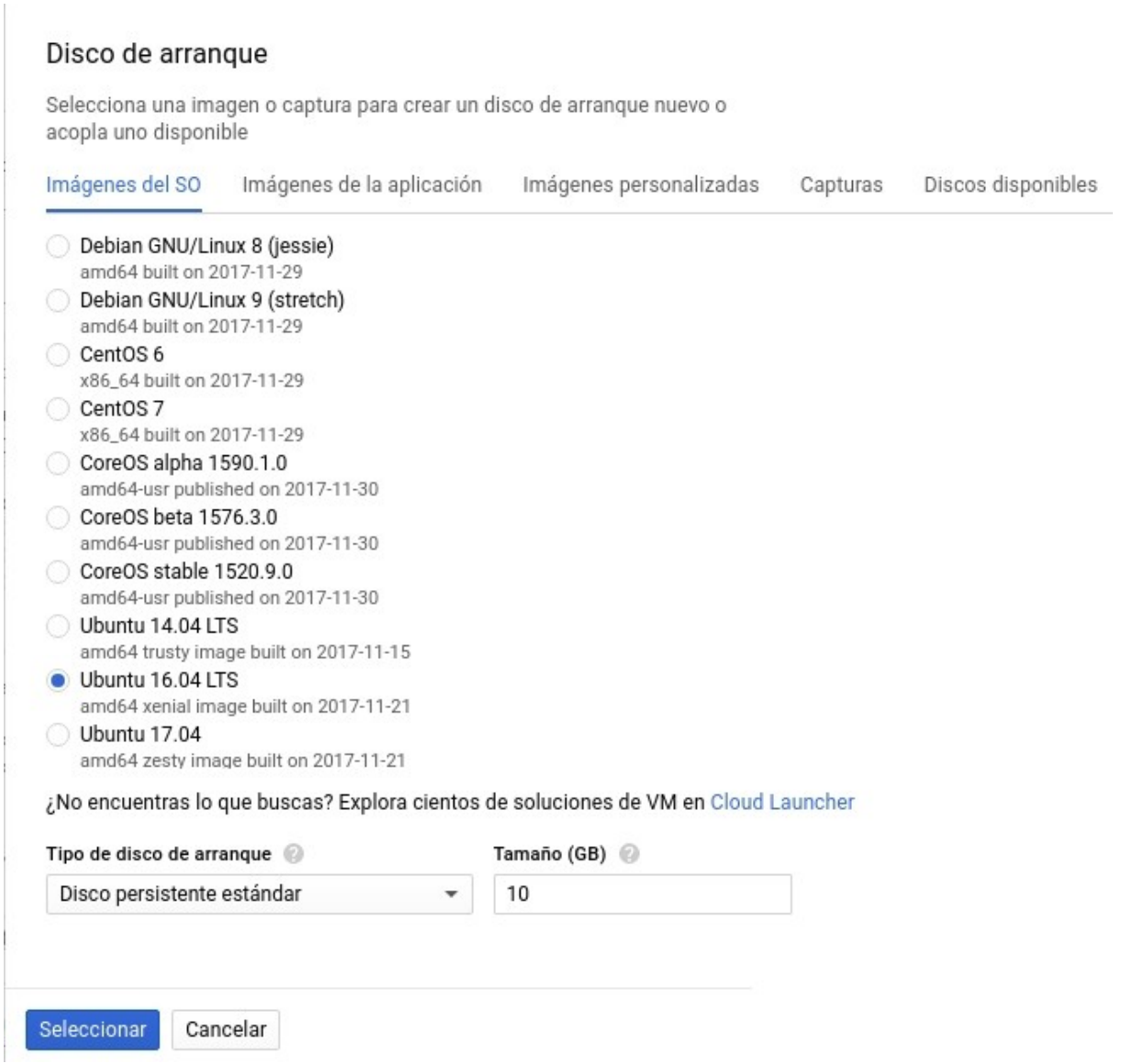
Google Cloud - Compute Engine



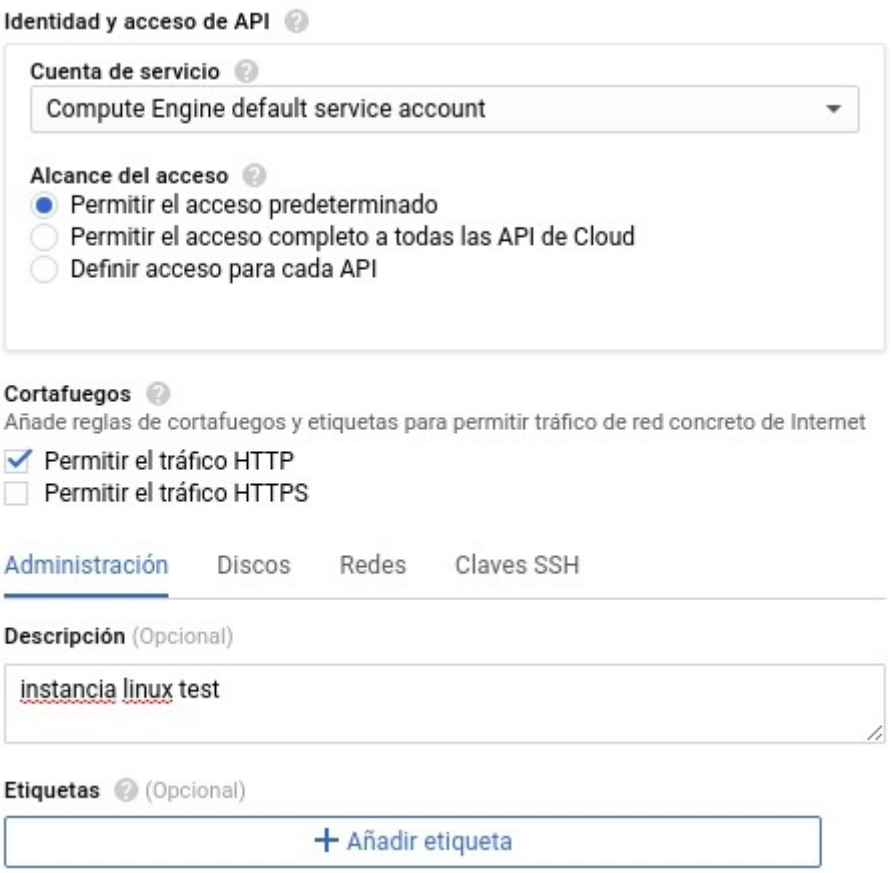
Google Cloud - Compute Engine

Machine type	Virtual CPUs	Memory	Price (USD)	Preemptible price (USD)
n1-standard-1	1	3.75GB	$0.0475	$0.0100
n1-standard-2	2	7.5GB	$0.0950	$0.0200
n1-standard-4	4	15GB	$0.1900	$0.0400
n1-standard-8	8	30GB	$0.3800	$0.0800
n1-standard-16	16	60GB	$0.7600	$0.1600
n1-standard-32	32	120GB	$1.5200	$0.3200
n1-standard-64	64	240GB	$3.0400	$0.6400
n1-standard-96 (Beta) Skylake Platform only	96	360GB	$4.5600	$0.9600

Google Cloud - Compute Engine



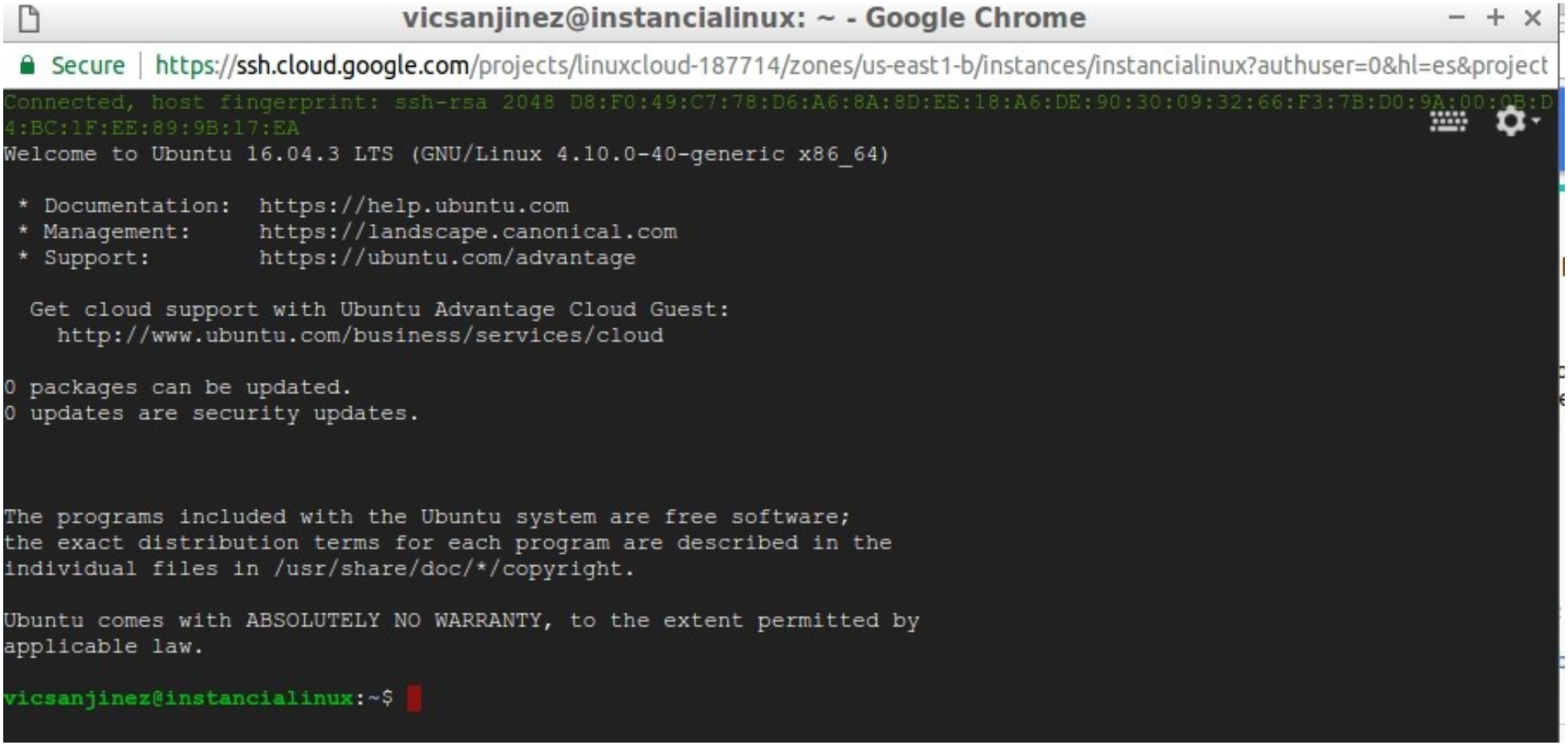
Google Cloud - Compute Engine



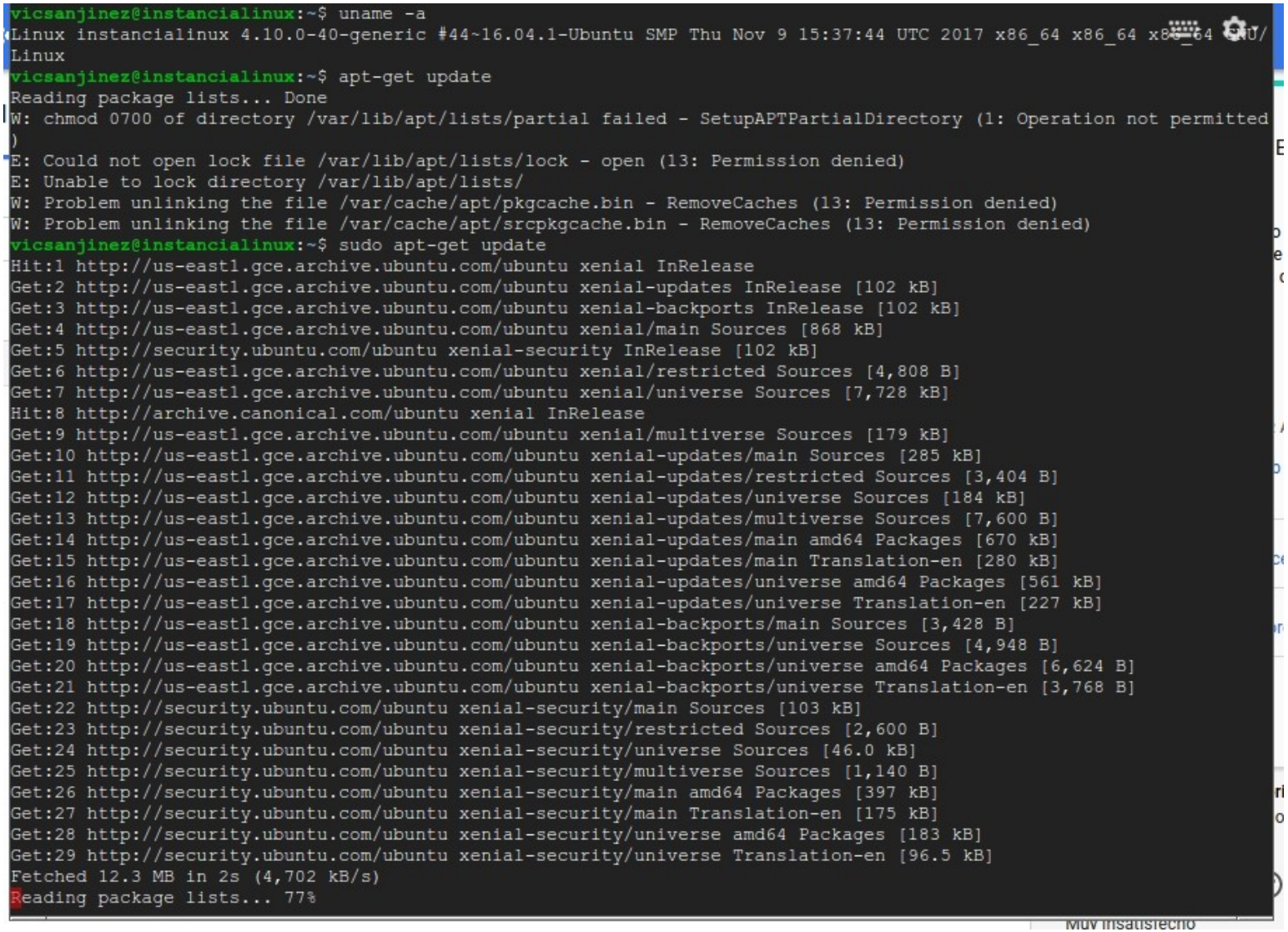
Google Cloud - Compute Engine

Google Cloud - Compute Engine

Google Cloud - Compute Engine



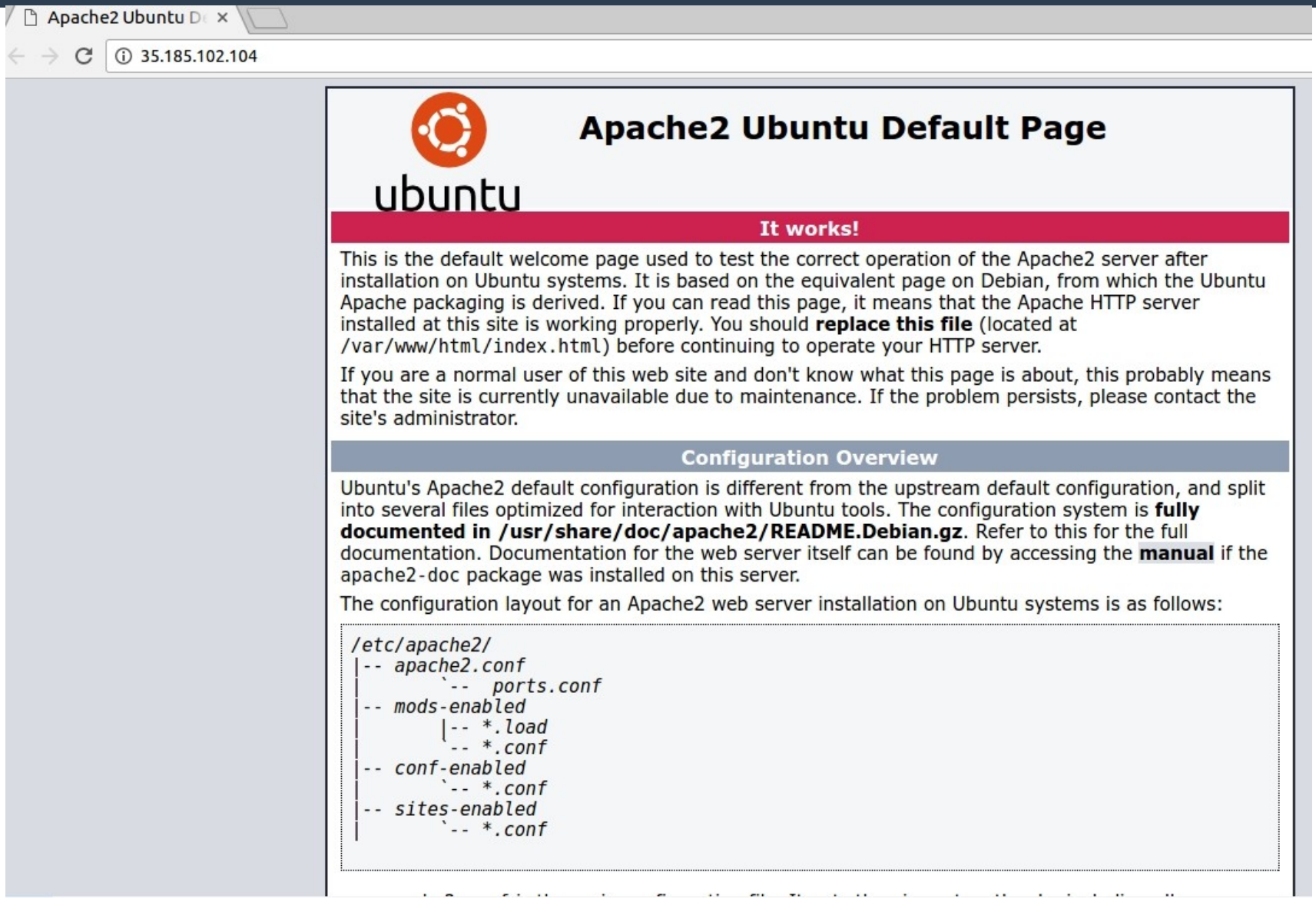
Google Cloud - Compute Engine



Google Cloud - Compute Engine

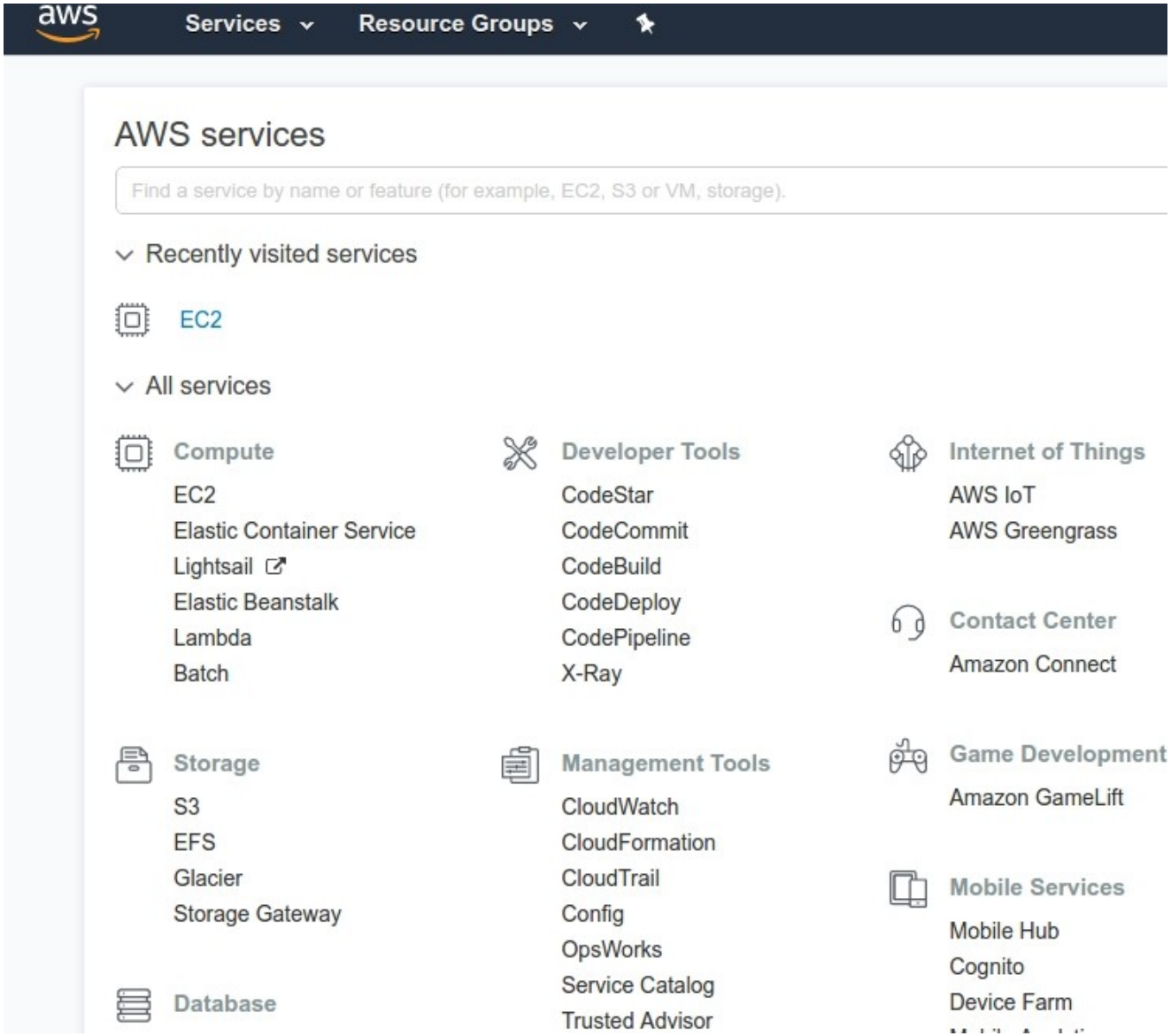
```
studio@instancialinux:~$ sudo apt-get install apache2
studio@instancialinux:~$ sudo service apache2 start
```

Google Cloud - Compute Engine

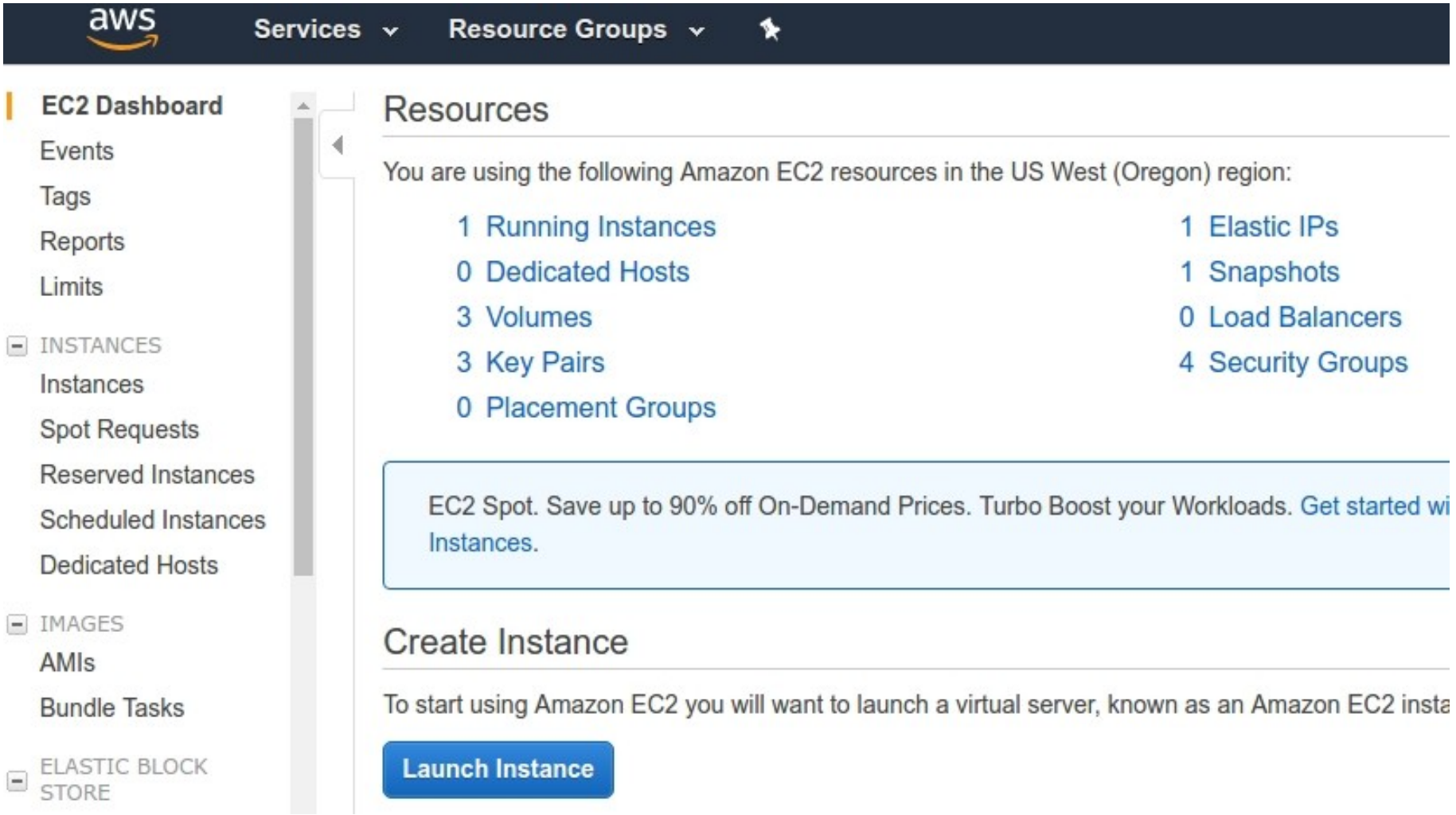


AWS - EC2

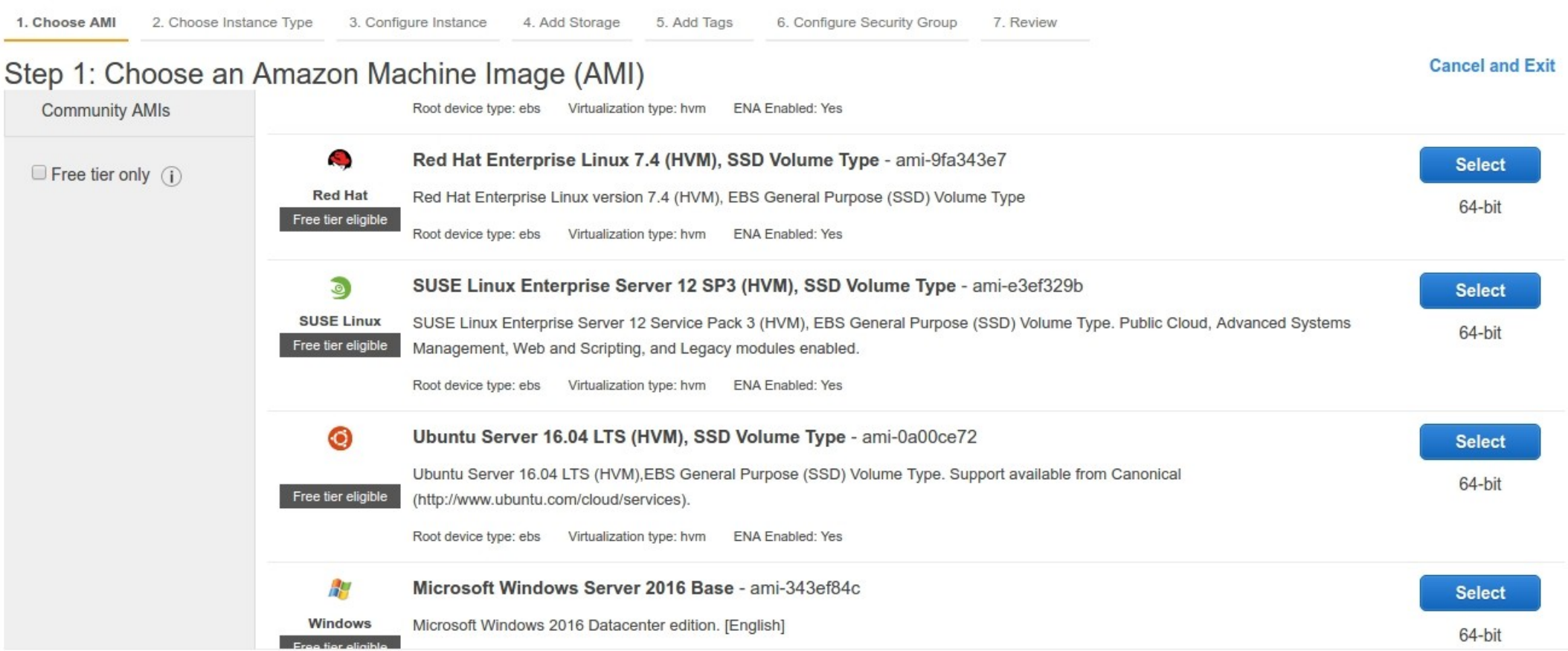
AWS - EC2


aws
Services
Resource Groups
AWS services
Find a service by name or feature (for example, EC2, S3 or VM, storage).
Recently visited services
EC2
All services
Compute
EC2
Elastic Container Service
Lightsail
Elastic Beanstalk
Lambda
Batch
Developer Tools
CodeStar
CodeCommit
CodeBuild
CodeDeploy
CodePipeline
X-Ray
Internet of Things
AWS IoT
AWS Greengrass
Contact Center
Amazon Connect
Storage
S3
EFS
Glacier
Storage Gateway
Management Tools
CloudWatch
CloudFormation
CloudTrail
Config
OpsWorks
Service Catalog
Trusted Advisor
Game Development
Amazon GameLift
Mobile Services
Mobile Hub
Cognito
Device Farm
Database

AWS - EC2


aws
Services
Resource Groups
EC2 Dashboard
Events
Tags
Reports
Limits
INSTANCES
Instances
Spot Requests
Reserved Instances
Scheduled Instances
Dedicated Hosts
IMAGES
AMIs
Bundle Tasks
ELASTIC BLOCK STORE
Resources
You are using the following Amazon EC2 resources in the US West (Oregon) region:
1 Running Instances
0 Dedicated Hosts
3 Volumes
3 Key Pairs
0 Placement Groups
1 Elastic IPs
1 Snapshots
0 Load Balancers
4 Security Groups
EC2 Spot. Save up to 90% off On-Demand Prices. Turbo Boost your Workloads. Get started wi
Instances.
Create Instance
To start using Amazon EC2 you will want to launch a virtual server, known as an Amazon EC2 insta
Launch Instance

AWS - EC2


1. Choose AMI
2. Choose Instance Type
3. Configure Instance
4. Add Storage
5. Add Tags
6. Configure Security Group
7. Review
Step 1: Choose an Amazon Machine Image (AMI)
Cancel and Exit
Community AMIs
Free tier only
Root device type: ebs Virtualization type: hvm ENA Enabled: Yes
Red Hat Enterprise Linux 7.4 (HVM), SSD Volume Type - ami-9fa343e7
Red Hat
Free tier eligible
Red Hat Enterprise Linux version 7.4 (HVM), EBS General Purpose (SSD) Volume Type
Root device type: ebs Virtualization type: hvm ENA Enabled: Yes
Select
64-bit
SUSE Linux Enterprise Server 12 SP3 (HVM), SSD Volume Type - ami-e3ef329b
SUSE Linux
Free tier eligible
SUSE Linux Enterprise Server 12 Service Pack 3 (HVM), EBS General Purpose (SSD) Volume Type. Public Cloud, Advanced Systems Management, Web and Scripting, and Legacy modules enabled.
Root device type: ebs Virtualization type: hvm ENA Enabled: Yes
Select
64-bit
Ubuntu Server 16.04 LTS (HVM), SSD Volume Type - ami-0a00ce72
Free tier eligible
Ubuntu Server 16.04 LTS (HVM),EBS General Purpose (SSD) Volume Type. Support available from Canonical (http://www.ubuntu.com/cloud/services).
Root device type: ebs Virtualization type: hvm ENA Enabled: Yes
Select
64-bit
Microsoft Windows Server 2016 Base - ami-343ef84c
Windows
Microsoft Windows 2016 Datacenter edition. [English]
Select
64-bit

AWS - EC2

Step 2: Choose an Instance Type

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. Learn more about instance types and how they can meet your computing needs.

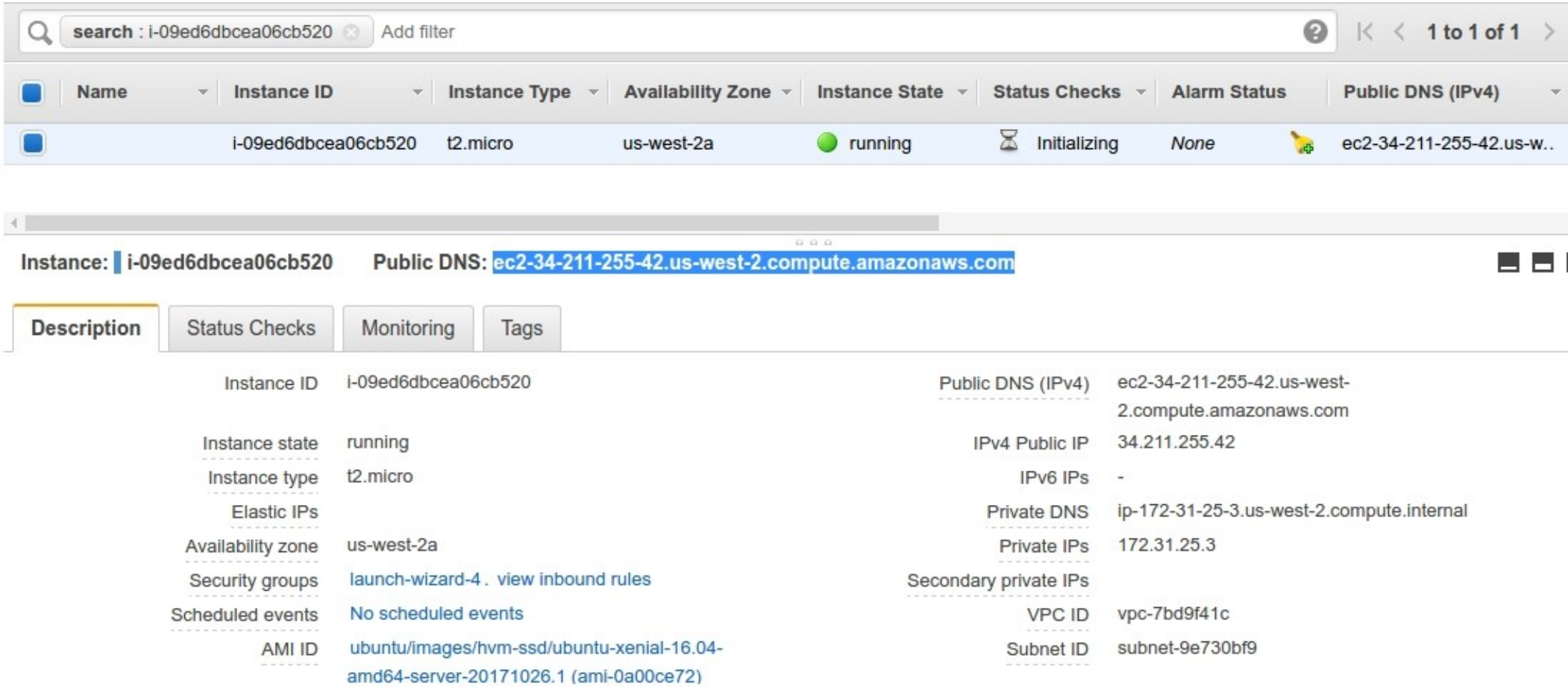
Filter by: All instance types | Current generation | Show/Hide Columns

Currently selected: t2.micro (Variable ECUs, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 1 GiB memory, EBS only)

	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance	IPv6 Support
☐	General purpose	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
☑	General purpose	t2.micro Free tier eligible	1	1	EBS only	-	Low to Moderate	Yes
☐	General purpose	t2.small	1	2	EBS only	-	Low to Moderate	Yes
☐	General purpose	t2.medium	2	4	EBS only	-	Low to Moderate	Yes
☐	General purpose	t2.large	2	8	EBS only	-	Low to Moderate	Yes
☐	General purpose	t2.xlarge	4	16	EBS only	-	Moderate	Yes

Cancel | Previous | Review and Launch | Next: Configure Instance Details

AWS - EC2


search : i-09ed6dbcea06cb520
Add filter
1 to 1 of 1
Name
Instance ID
Instance Type
Availability Zone
Instance State
Status Checks
Alarm Status
Public DNS (IPv4)
i-09ed6dbcea06cb520
t2.micro
us-west-2a
running
Initializing
None
ec2-34-211-255-42.us-w..
Instance: i-09ed6dbcea06cb520
Public DNS: ec2-34-211-255-42.us-west-2.compute.amazonaws.com
Description
Status Checks
Monitoring
Tags
Instance ID
i-09ed6dbcea06cb520
Instance state
running
Instance type
t2.micro
Elastic IPs
Availability zone
us-west-2a
Security groups
launch-wizard-4 . view inbound rules
Scheduled events
No scheduled events
AMI ID
ubuntu/images/hvm-ssd/ubuntu-xenial-16.04-amd64-server-20171026.1 (ami-0a00ce72)
Public DNS (IPv4)
ec2-34-211-255-42.us-west-2.compute.amazonaws.com
IPv4 Public IP
34.211.255.42
IPv6 IPs
-
Private DNS
ip-172-31-25-3.us-west-2.compute.internal
Private IPs
172.31.25.3
Secondary private IPs
VPC ID
vpc-7bd9f41c
Subnet ID
subnet-9e730bf9

AWS - EC2

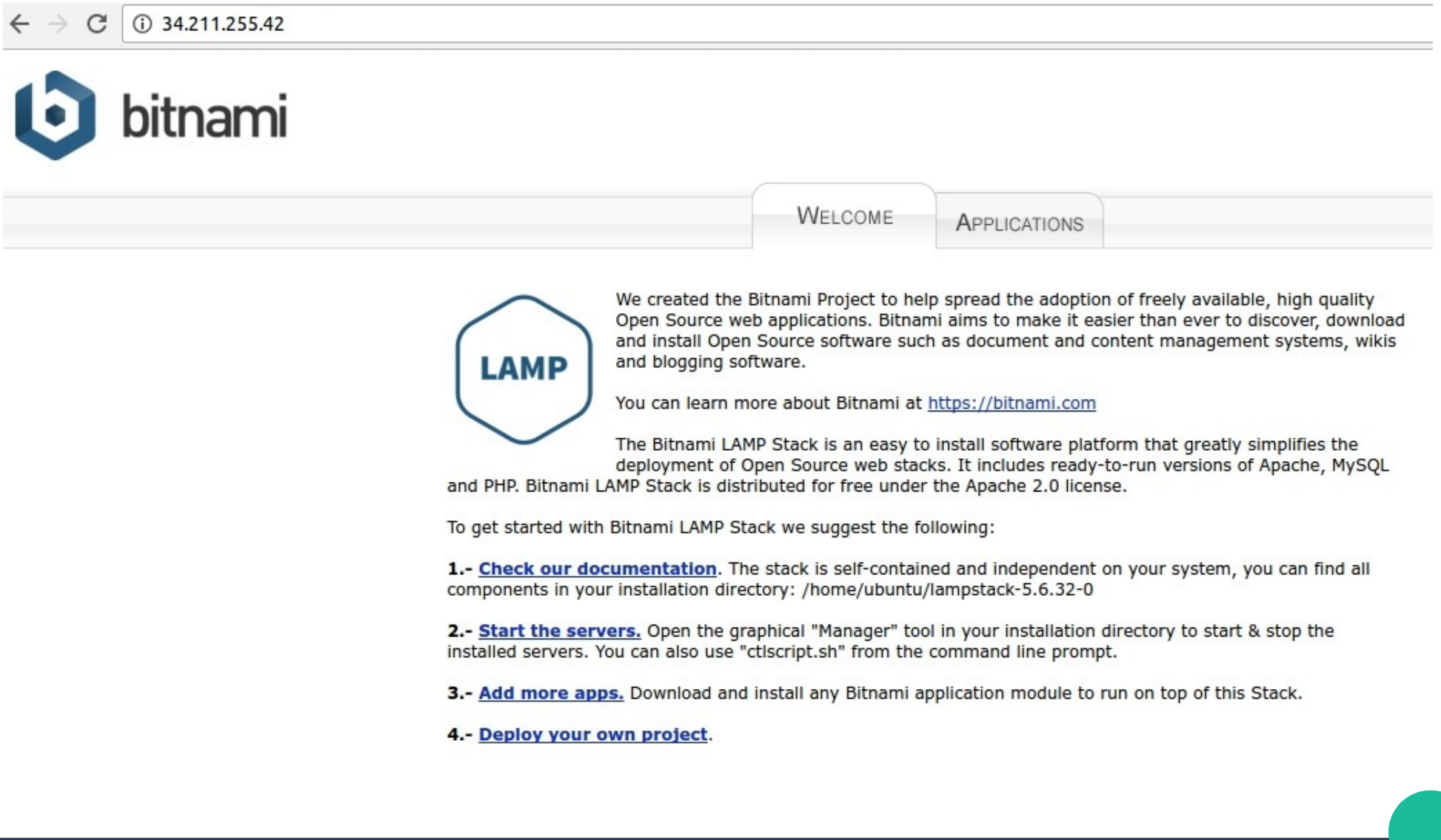
```
testaws|⇒ ssh -i testaws.pem ubuntu@34.211.255.42
```

```
ubuntu@ip-172-31-25-3:~$ wget https://bitnami.com/redirect/to/163849/bitnami-lam
pstack-5.6.32-0-linux-x64-installer.run
```

```
ubuntu@ip-172-31-25-3:~$ cd /home/ubuntu/lampstack-5.6.32-0/
ubuntu@ip-172-31-25-3:~/lampstack-5.6.32-0$ ls
README.txt     config         licenses                scripts
apache2        ctlscript.sh   manager-linux-x64.run   sqlite
apps           docs           mysql                   uninstall
changelog.txt  git            php                     uninstall.dat
common         img            properties.ini          use_lampstack
ubuntu@ip-172-31-25-3:~/lampstack-5.6.32-0$
```

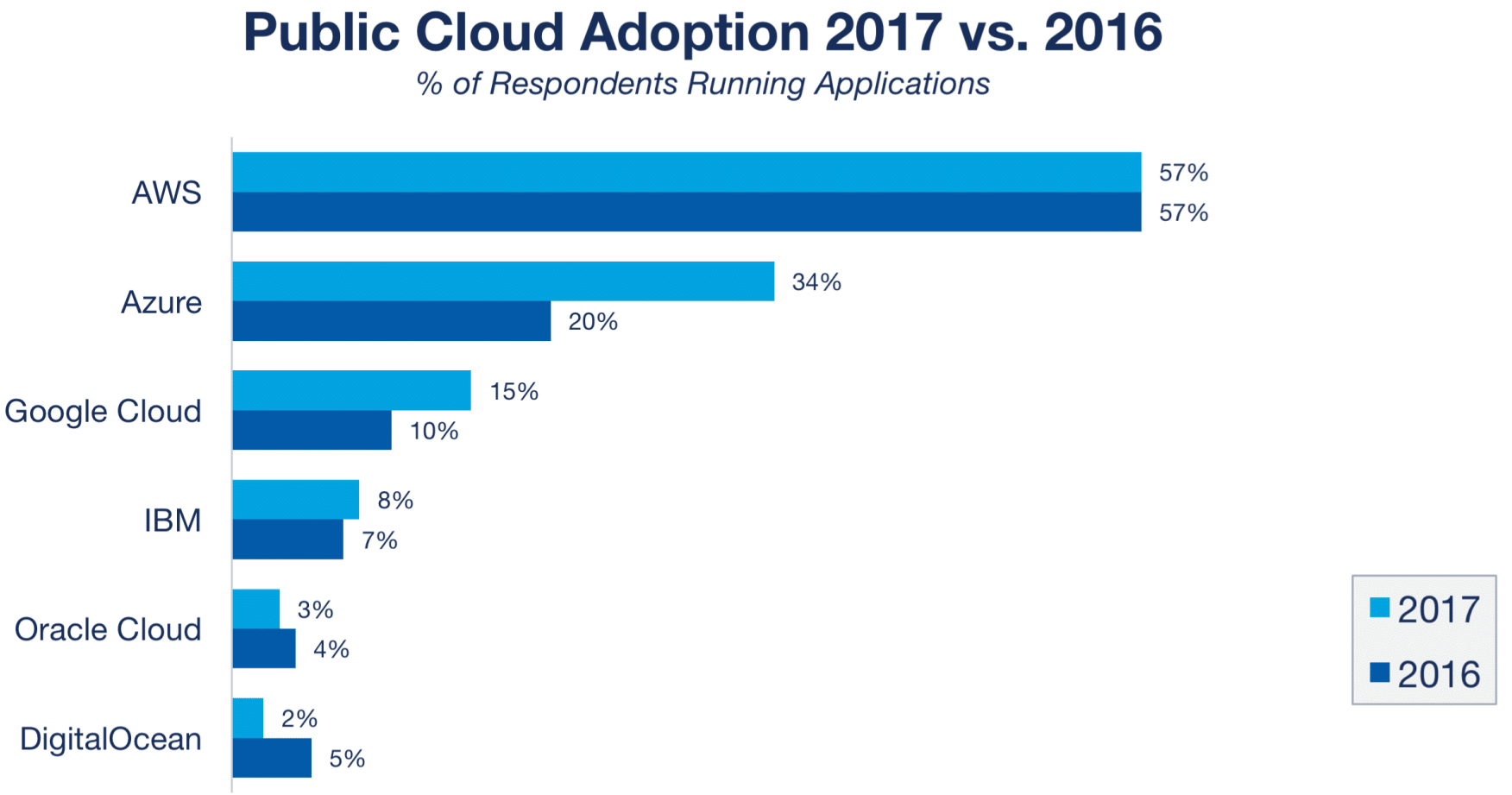
```
ubuntu@ip-172-31-25-3:~/lampstack-5.6.32-0$ ./ctlscript.sh start apache
Syntax OK
/home/ubuntu/lampstack-5.6.32-0/apache2/scripts/ctl.sh : httpd (pid 2410) alread
y running
ubuntu@ip-172-31-25-3:~/lampstack-5.6.32-0$ ./ctlscript.sh start mysql
/home/ubuntu/lampstack-5.6.32-0/mysql/scripts/ctl.sh : mysql  started at port 33
06
```

AWS - EC2


34.211.255.42
bitnami
WELCOME
APPLICATIONS
LAMP
We created the Bitnami Project to help spread the adoption of freely available, high quality Open Source web applications. Bitnami aims to make it easier than ever to discover, download and install Open Source software such as document and content management systems, wikis and blogging software.
You can learn more about Bitnami at https://bitnami.com
The Bitnami LAMP Stack is an easy to install software platform that greatly simplifies the deployment of Open Source web stacks. It includes ready-to-run versions of Apache, MySQL and PHP. Bitnami LAMP Stack is distributed for free under the Apache 2.0 license.
To get started with Bitnami LAMP Stack we suggest the following:
1.- Check our documentation. The stack is self-contained and independent on your system, you can find all components in your installation directory: /home/ubuntu/lampstack-5.6.32-0
2.- Start the servers. Open the graphical "Manager" tool in your installation directory to start & stop the installed servers. You can also use "ctlscript.sh" from the command line prompt.
3.- Add more apps. Download and install any Bitnami application module to run on top of this Stack.
4.- Deploy your own project.

What is my cloud?

What is my cloud?

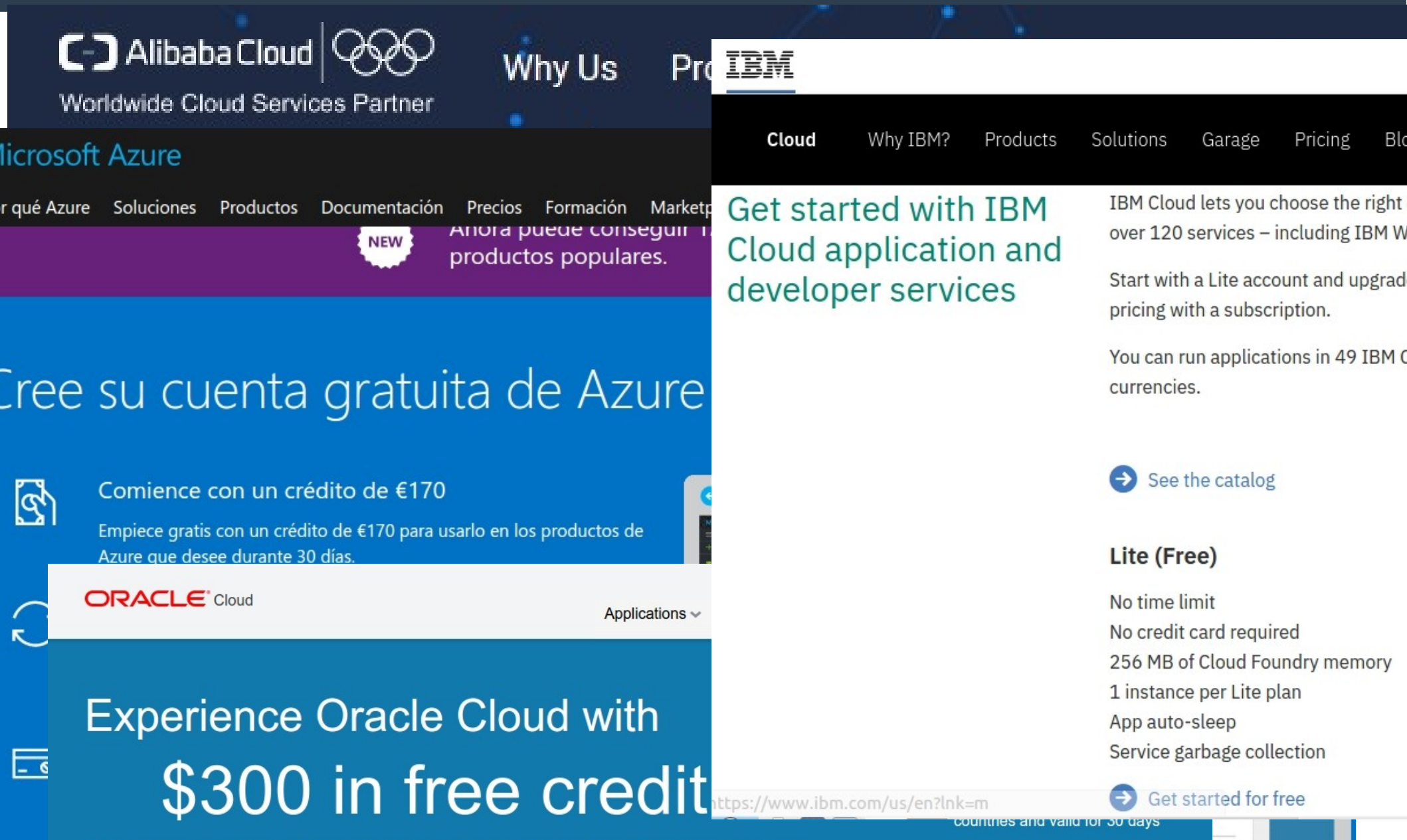


Source: RightScale 2017 State of the Cloud Report

What is my cloud?

AWS	Google Cloud
1.- AMI for Deep Learning	**1.-** Just Linux, Windows, and some optimized
2.- AWS Educate Free 75 USD without Credit Card	**2.-** Free 300 USD with Credit Card
3.- Just Classic Terminal	**3.-** Terminal Web
4.- No available	**4.-** Mobile App Android/IOS for Administration
5.- AWS Activate for Startups (1000 USD) Be a new services with a website and business email	**5.-** Google Cloud for Startups (20000 USD)Be part of a risk capital, accelerator or incubator fund

What is my cloud?



One more thing...

Secure | https://qwiklabs.com

QWIKLABS Search for labs JOIN

How Can I Partner With Qwiklabs?

Partners can create, manage and run labs anytime. You can deliver labs via the cloud to classrooms, webinars, events or have them generally available for self-paced learning. Qwiklabs is used by students, trainers and organizations around the world.

Plus, Qwiklabs can integrate with most of your existing learning infrastructure, including learning management systems and student information systems.

Google Cloud Platform

amazon web services™

Read More >

QWIKLABS

Search for labs

Running a MongoDB Database in Kubernetes with StatefulSets	★★★★☆	Expert	9 Credits	50m
Speaking with a webpage	☆☆☆☆☆	Expert	9 Credits	1h 20m
Structured Data Regression with Cloud ML Engine & Datalab via Cloud Shell	★★★★☆	Expert	9 Credits	45m
Using Google Stackdriver Debug, Traces, Logging and Logpoints	★★★★☆	Expert	9 Credits	45m
Analyze Big Data with Hadoop	★★★★☆	Introductory	Free	40m
Challenge Lab	★★★★☆	Introductory	Free	45m
Introduction to AWS Application Discovery Service	★★★★☆	Introductory	1 Credit	35m
Introduction to AWS CloudFormation	★★★★☆	Introductory	1 Credit	20m

Thanks!!!

Email: **vicsanjinez@gmail.com**

Twitter: **@victorsanjinez**