

# Cloud Computing - Reconocimiento

Especialización en Big Data

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## PERFIL PROFESIONAL

Magíster en Ingeniería en el área de Sistemas y computación. Especialista en Seguridad de la Información, Especialista en Docencia Universitaria, Profesional en Ingeniería de Sistemas. Catedrático en las Universidades Cooperativa y del Tolima. Amplia experiencia en proyectos de desarrollo de sistemas de información, herramientas de soporte a toma de decisiones, procesos de Transformación Digital y coaching de Innovación.



# Temas

- 1 Cloud computing
- 2 Retos y oportunidades
- 3 Migración hacia la nube
- 4 La nube y los medios sociales
- 5 La nube móvil y el ecosistema web

## PRODUCT GOAL

Desarrollar un prototipo utilizando el paradigma de computación en la nube

- con el propósito de simular la tercerización de aplicaciones o servicios
- analizando las ventajas y las desventajas de acuerdo con los objetivos de negocio de una empresa.

## Criterios de aceptación Producto

CR 1: Comprender IaaS

CR 2: Realizar prototipo PaaS

CR 3: Implementar prototipo SaaS

## Sprint Goal

Introducción al curso

Determinar el problema

Conocer conceptos Cloud

Conocer conceptos Scrum

Conocer conceptos DevOps

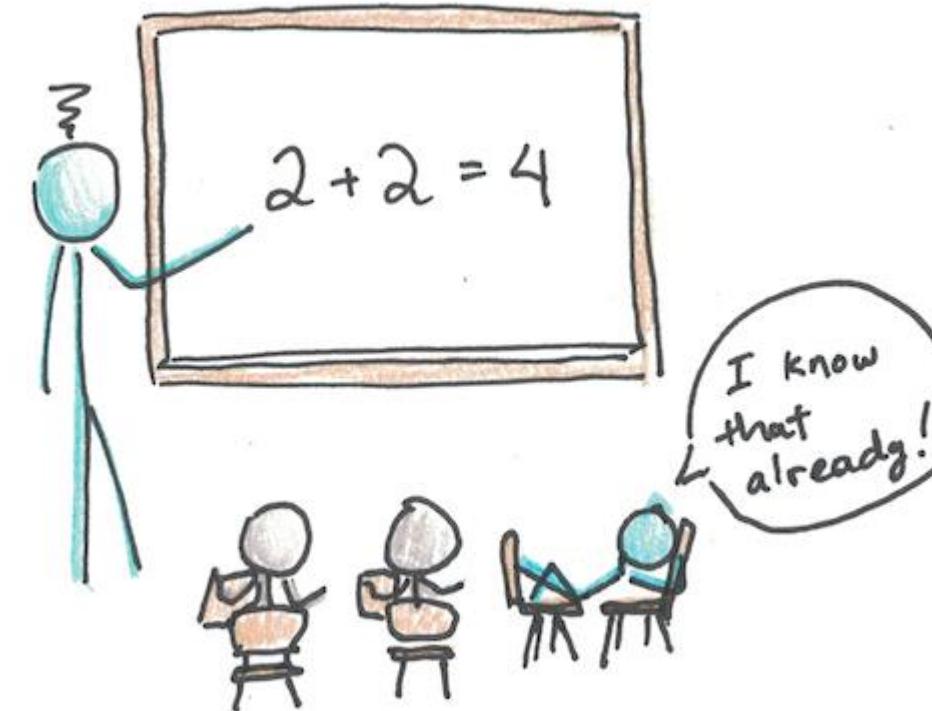
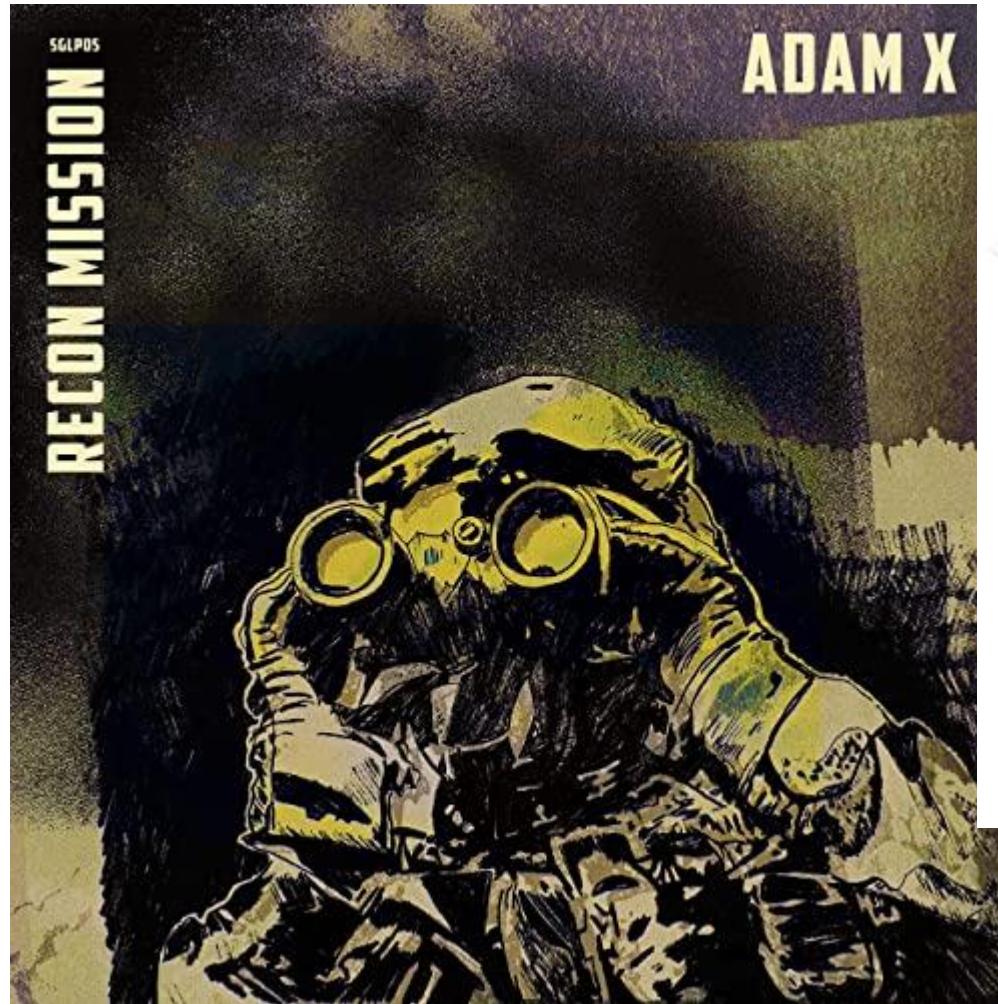
Conocer/usr Azure DevOps



## Historia 1

Como un estudiante de la especialización quiero conocer el modelo Reconocimiento, Contextualización, Profundización y Transferencia.

# Reconocimiento



What do we already know about this topic?

3 things I already know about this topic...

- 1.
- 2.
- 3.

Bar chart icon

3 things my partner already knows about this topic...

- 1.
- 2.
- 3.

Cloud icon

3 things the class already knows about this topic...

- 1.
- 2.
- 3.

Ribbon icon

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# Lo que ya sabemos

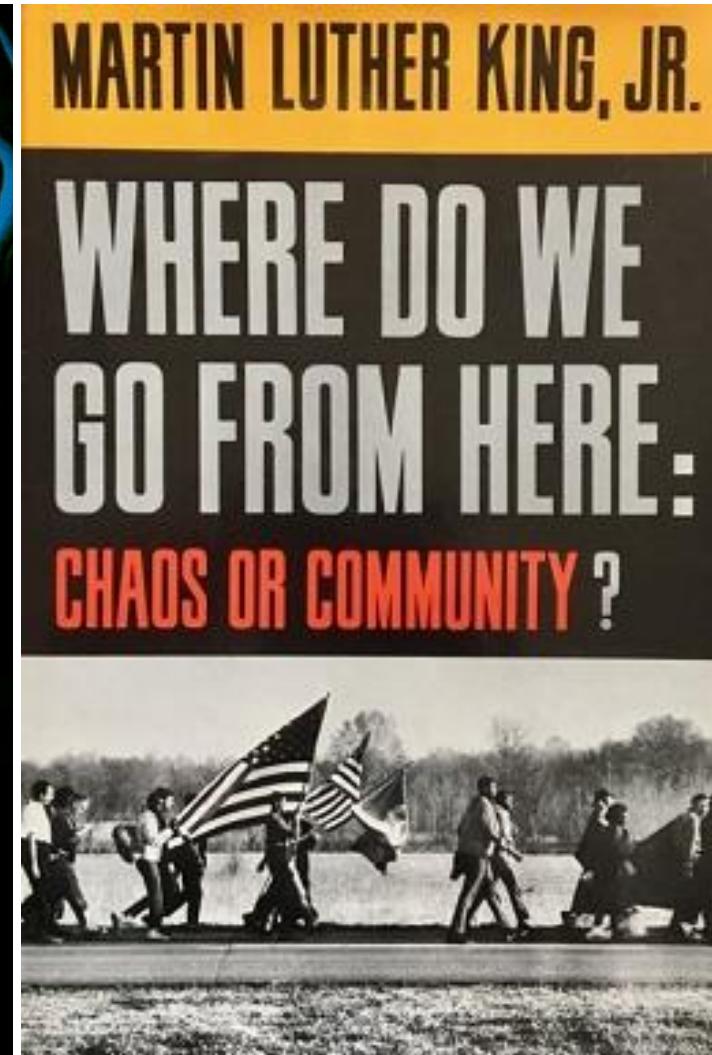
Qué es Cloud?

Qué es Cloud Computing?

Cómo uso yo Cloud computing?

Qué proveedores de cloud conozco?

# Contextualización

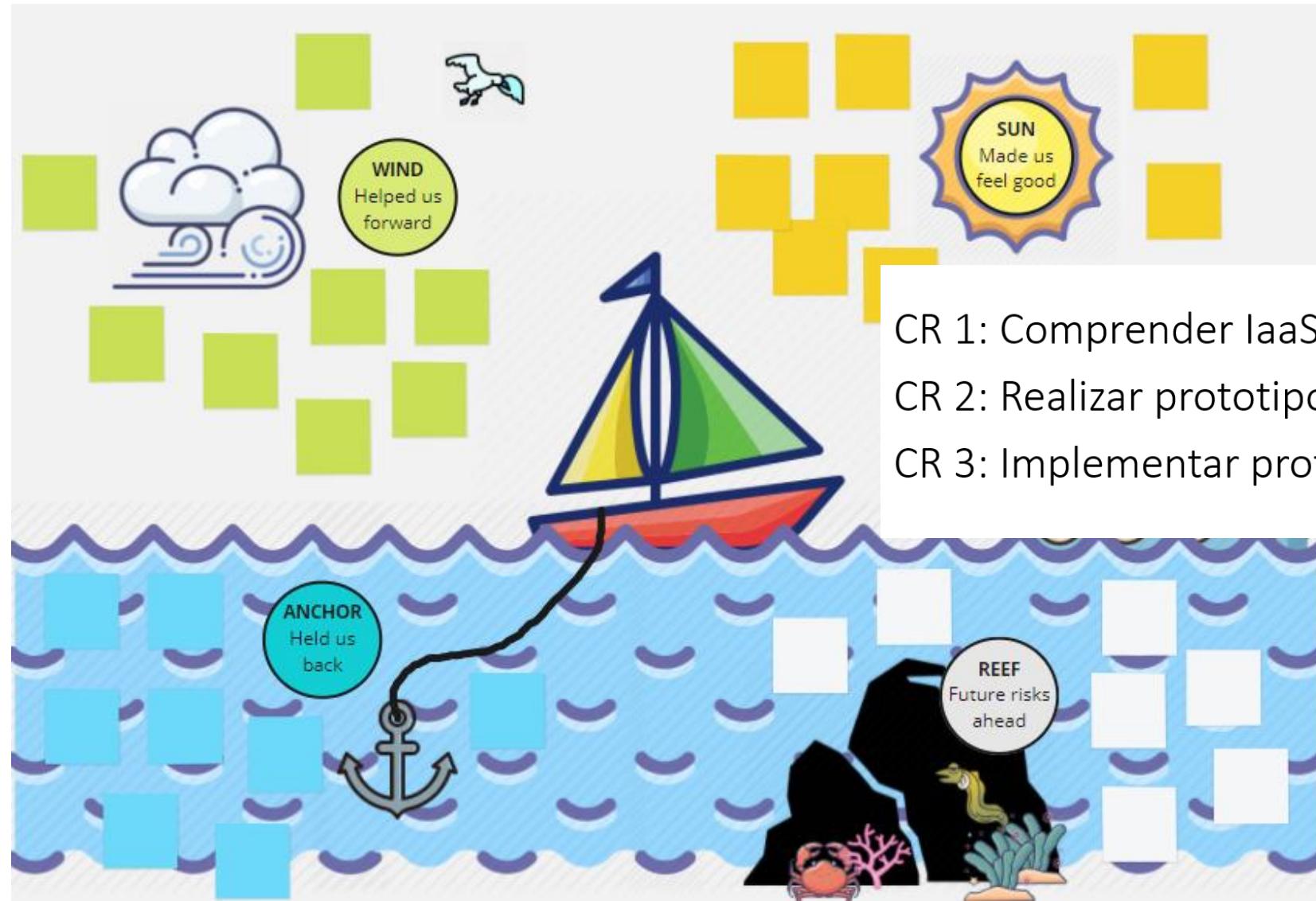


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# Cuál es la meta?



# Cuál es la meta?



# Qué necesitamos para llegar?

## 1. Introducción a la computación en la nube

- 1.1. Que es computación en la nube
- 1.2. Retos y oportunidades
- 1.3. Migración hacia la nube
- 1.4. La nube y los medios sociales
- 1.5. La nube móvil y el ecosistema web

## Etapa 1. Contextualización

## 2. Arquitectura de la Nube

- 2.1. Modelos de la Nube
- 2.2. Modelos de servicio: SaaS, PaaS, IaaS
- 2.3. Modelo de despliegue
- 2.4. Nube Pública
- 2.5. Nube Privada
- 2.6. Nube Híbrida
- 2.7. Escalabilidad y elasticidad
- 2.8. Virtualización

## 3. Almacenamiento basado en la nube

- 3.1. Almacenamiento como servicio
- 3.2. Beneficios y riesgos del almacenamiento en la nube
- 3.3. Características principales
- 3.4. Requisitos de almacenamiento en la nube: Durabilidad, Disponibilidad, Seguridad
- 3.5. Proveedores de almacenamiento en la nube

## Etapa 2. Profundización

### 4. Seguridad y privacidad en la Nube

- 4.1. Protección de datos
- 4.2. Seguridad de los servicios
- 4.3. Estándares de autenticación
- 4.4. Estándares de virtualización
- 4.5. Protección de datos y privacidad
- 4.6. Principios de seguridad de los principales entes internacionales: Unión europea, Alemania unidos, España

### 5. Estándares y proveedores de servicio en la nube

- 5.1. Establecimiento de estándares
- 5.2. Estándares: Virtualización, Autenticación, BEEVA
- 5.3. Proveedores: Amazon, Google, Microsoft, IBM, Oracle

## Etapa 3. Transferencia

### 6. La nube en la organización y la empresa

- 6.1. Impacto de la nube en la transformación digital
- 6.2. Estrategias de computación en la nube
- 6.3. Factores clave en la adopción de una estrategia en la nube
- 6.4. Retos de IT con una infraestructura en la nube
- 6.5. Tecnologías que impactan el uso de la nube: Inteligencia artificial, Realidad aumentada, Data

### 7. Aplicaciones de Cloud Computing

- 7.1. Almacenamiento
- 7.2. Despliegue de juegos
- 7.3. Aplicaciones científicas
- 7.4. Aplicaciones en la empresa

En resumen:

Conceptos Cloud

Ejecución de proyectos de software (devops, scrum)

Uso de herramientas de Cloud (Azure)

Problema a solucionar. (???)

# Profundización



Empecemos por el comienzo.

Qué vamos a hacer?

Qué problemas ves en tu EMPRESA que al solucionarse puedan agregar valor al CLIENTE?



Qué problemas ves en tu AREA que al solucionarse  
puedan agregar valor al CLIENTE?



Qué problemas ves en tus CLIENTES que al solucionarse puedan agregarles valor?



Qué NECESIDADES ves en tu EMPRESA que se puedan convertir en oportunidades de negocio?



Qué NECESIDADES ves en tu AREA que se puedan convertir en oportunidades de negocio?



Qué NECESIDADES ves en tus CLIENTES que se puedan convertir en oportunidades de negocio?



Qué DESEOS ves en tu EMPRESA que tu AREA pueda resolver?



Qué DESEOS ves en tu AREA que resolverían necesidades de los CLIENTES?



Qué DESEOS ves en tus CLIENTES que tu EMPRESA pueda satisfacer?



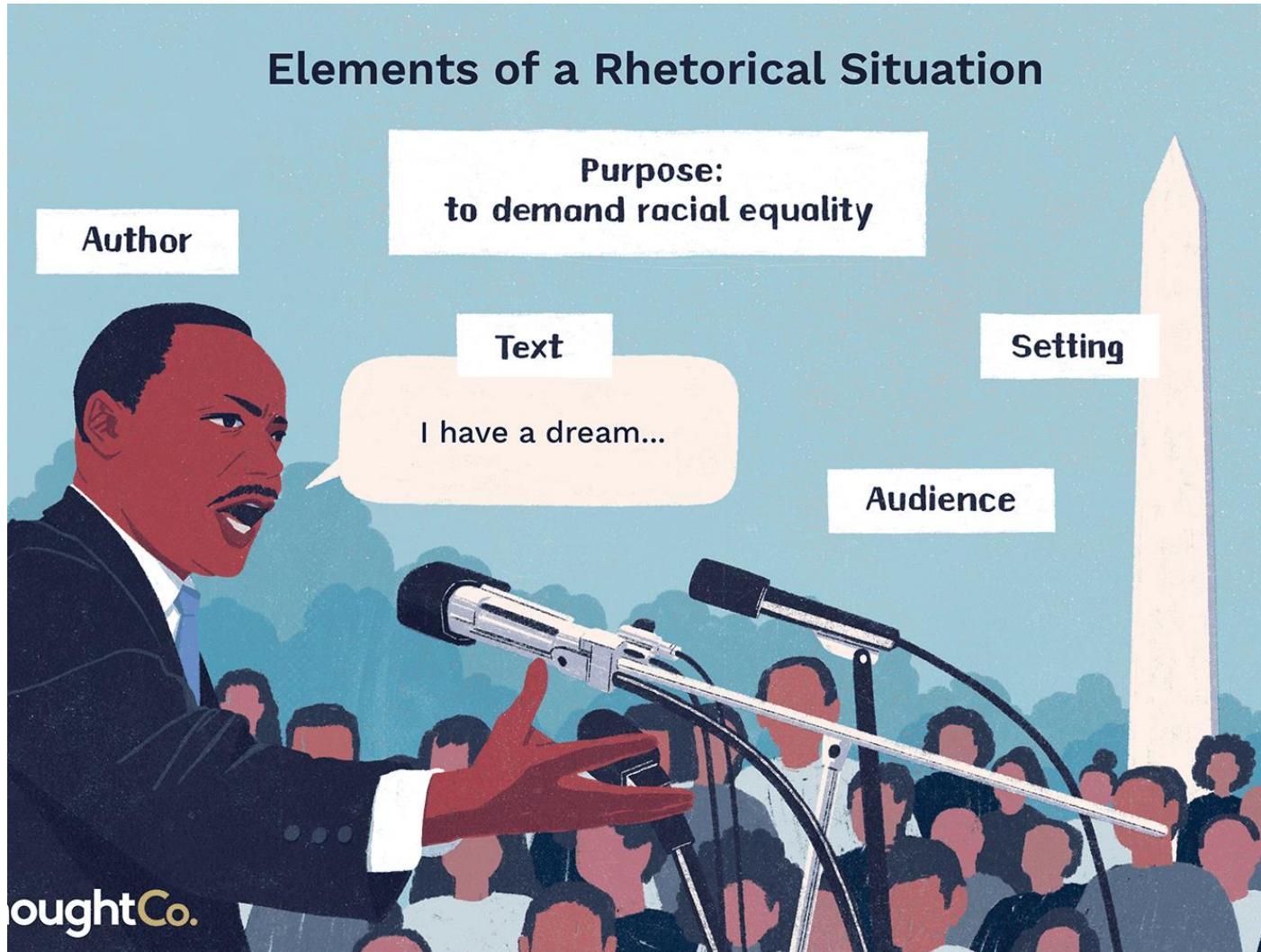
Qué agrega valor y es una oportunidad de negocio para una necesidad específica del mercado de la EMPRESA?



# Con cual de las iniciativas encontradas te quedas?



# Transferencia



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## Compartir en comunidad

Publicar las iniciativas en el tablero.

Revisar las iniciativas e “inspirarse”

Formar equipos de 3

Presentar la iniciativa escogida de cada uno.

Seleccionar la iniciativa a trabajar en equipo.

Compartirla con el resto de equipos.

## Historia 2

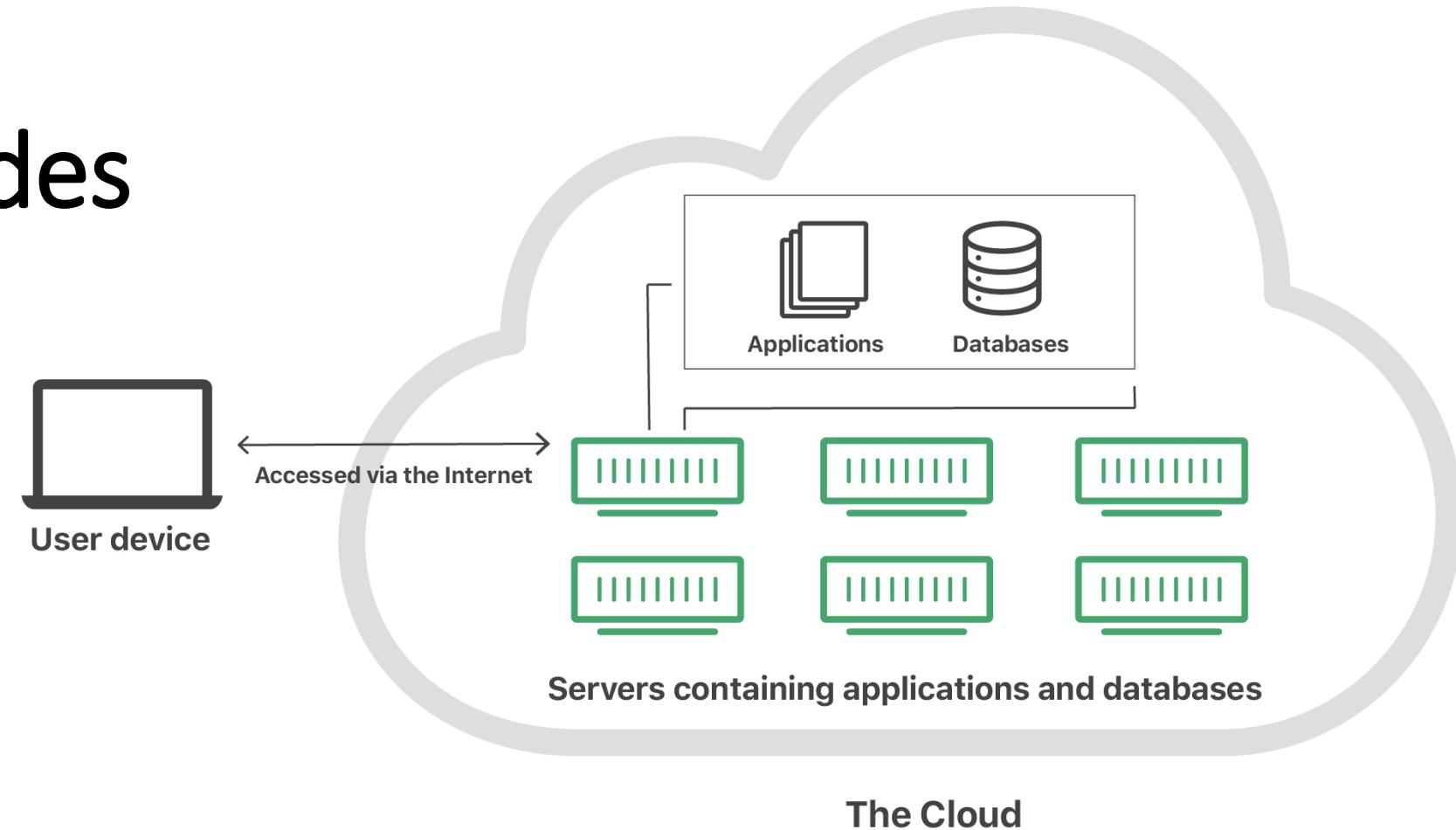
Como un estudiante de la especialización quiero conocer los conceptos básicos de Cloud computing, para poder presentar el caso de negocio.

# Cloud computing



Cloud = Internet

## Red de redes



# Cloud computing

Método de proveer recursos computacionales compartidos en INTERNET, incluyendo aplicaciones, cómputo, almacenamiento, redes, desarrollo así como procesos de negocio.

Cloud computing hace que los recursos de cómputo sean más fáciles de usar, proporcionando estandarización y automatización

# Cloud computing

La entrega de servicios computacionales (incluyendo servidores, storage, databases, networking, software, analytics e inteligencia) sobre la INTERNET (The cloud), para ofrecer innovación rápida, recursos flexibles y economía de escala.

## Microsoft Azure

# Cloud computing patterns

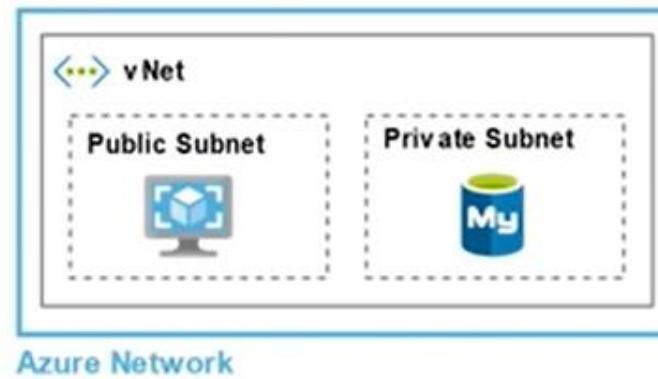
- ON and OFF
- Growing fast
- Unpredictable Burst
- Predictable Burst

# Deployment models

## Public Cloud

**Everything** built on the Cloud Provider

Also known as: Cloud-Native

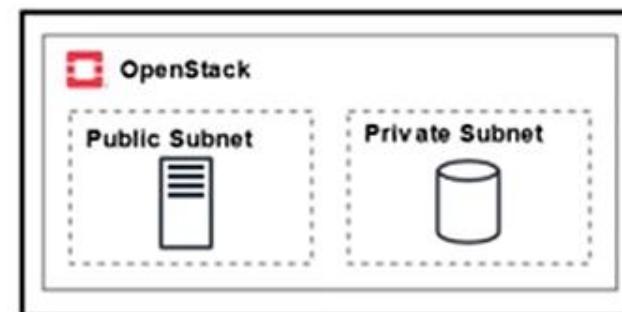


## Private Cloud

Everything built on company's datacenters

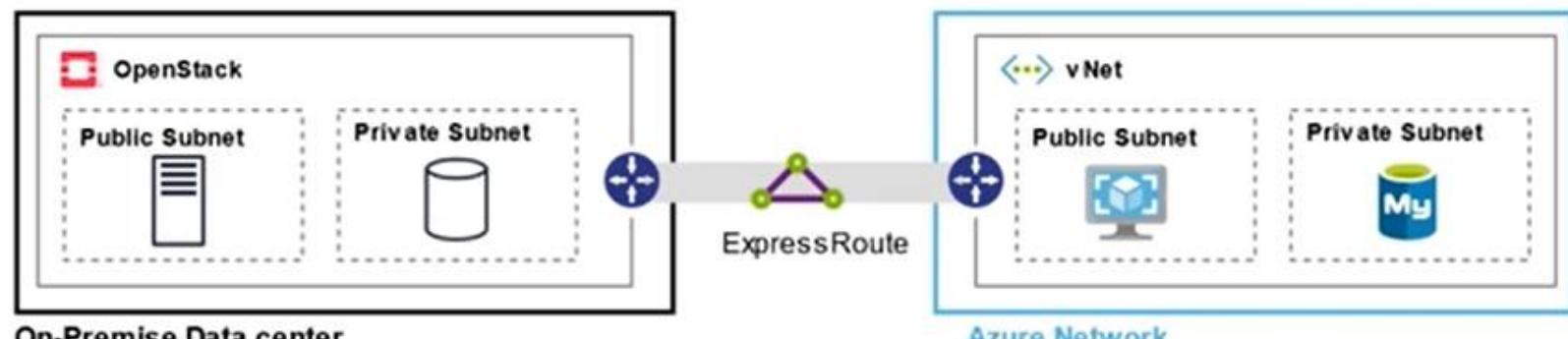
Also known as **On-Premise**

The cloud could be **OpenStack**



## Hybrid

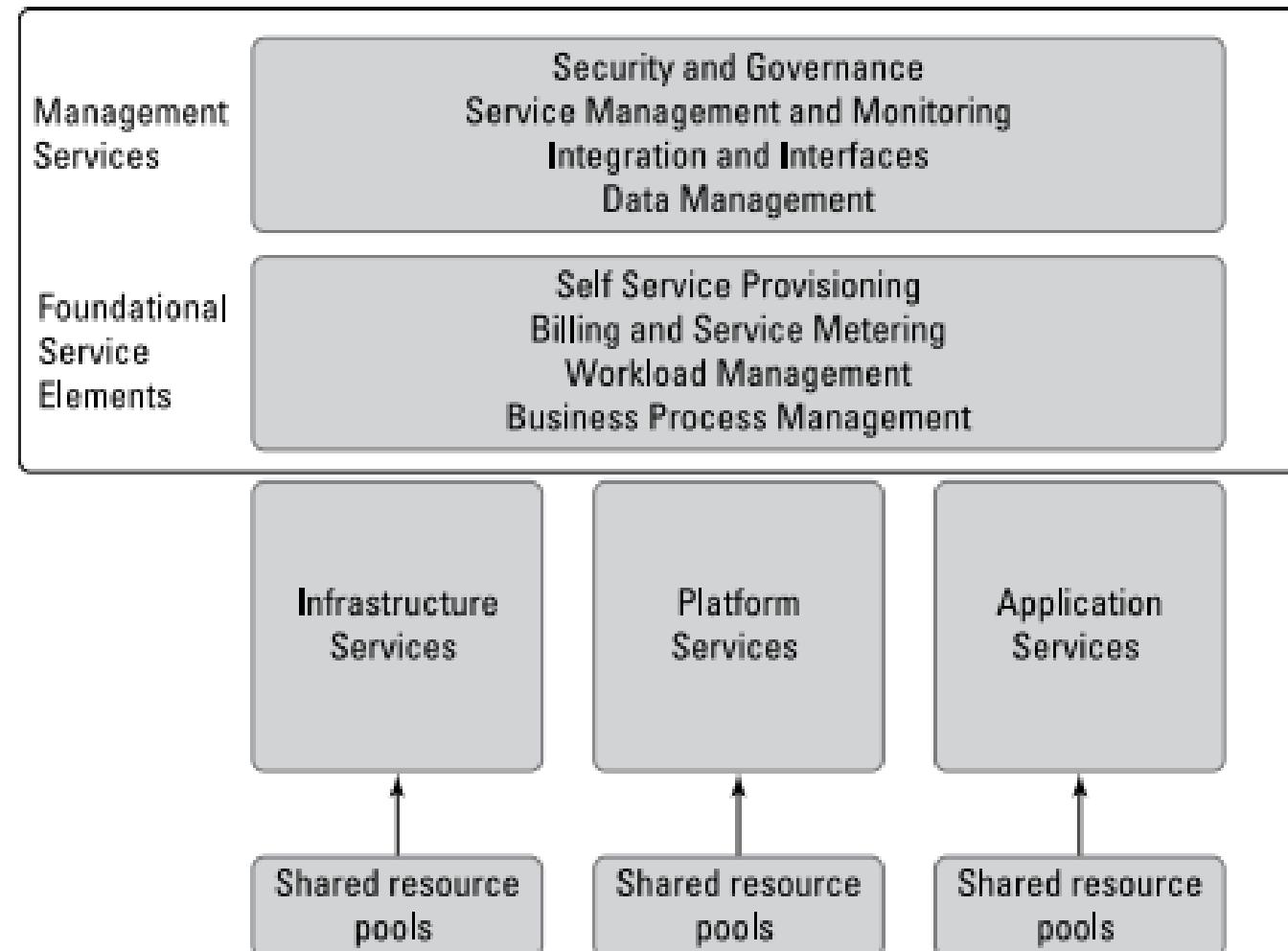
Using both **On-Premise** and  
**A Cloud Service Provider**



# Clouds

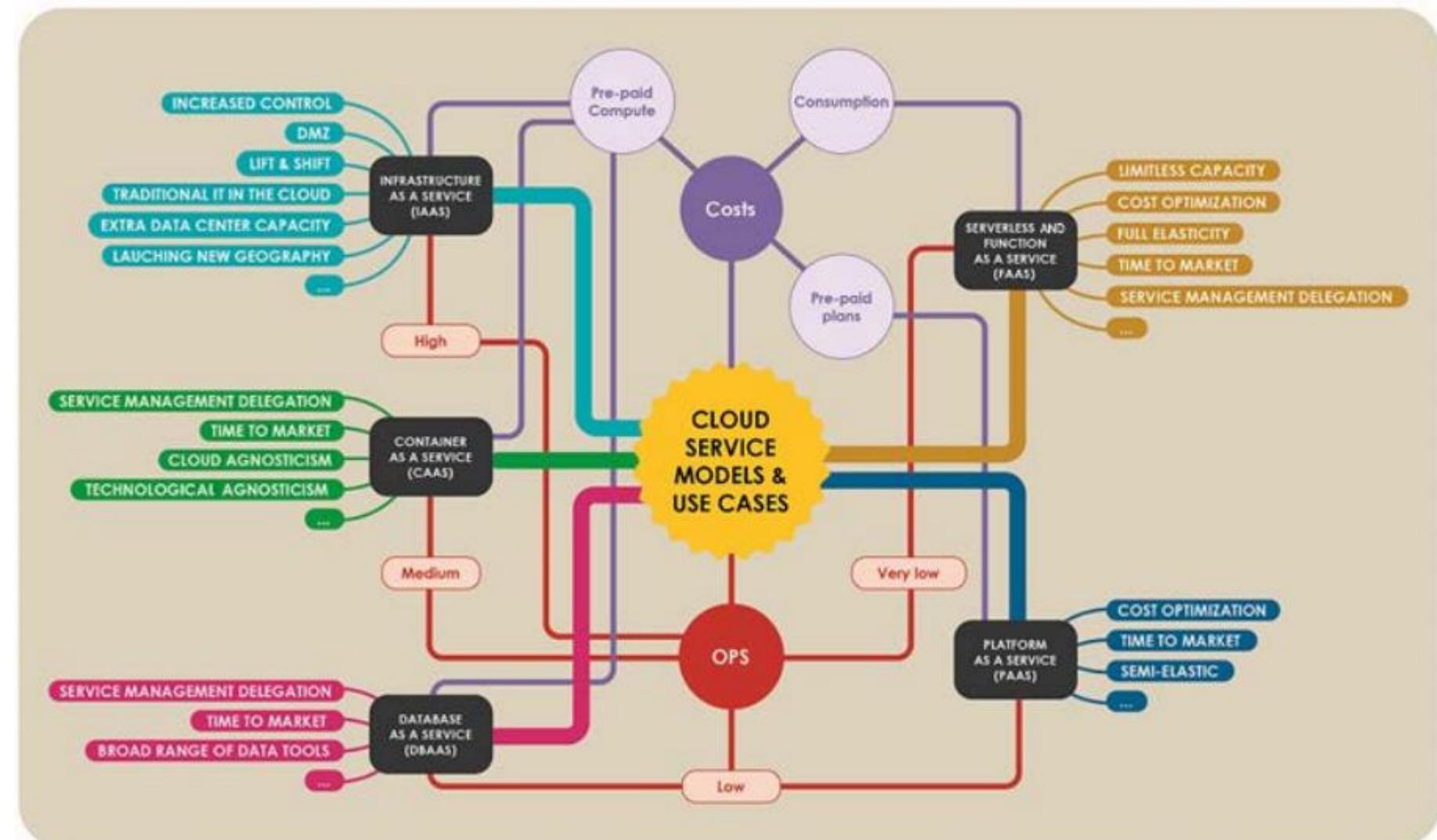
- Pública: operada por terceros.
- Privada: operada por la organización
- Hybrid: Combinación de privada y pública
- Multicloud: varias cloud publicas
- Corporativa: une multicloud y privada

# Elementos cloud



# Service Models

- IAAS
- PAAS
- SAAS
- DAAS
- CAAS
- FAAS



# Elements of Cloud computing



## SaaS Software as a Service **For Customers**

A product that is run and managed by the service provider  
*Don't worry about how the service is maintained.  
It just works and remains available.*

## PaaS Platform as a Service **For Developers**

Focus on the deployment and management of your apps.  
*Don't worry about, provisioning, configuring or understanding the hardware or OS.*

## IaaS Infrastructure as a Service

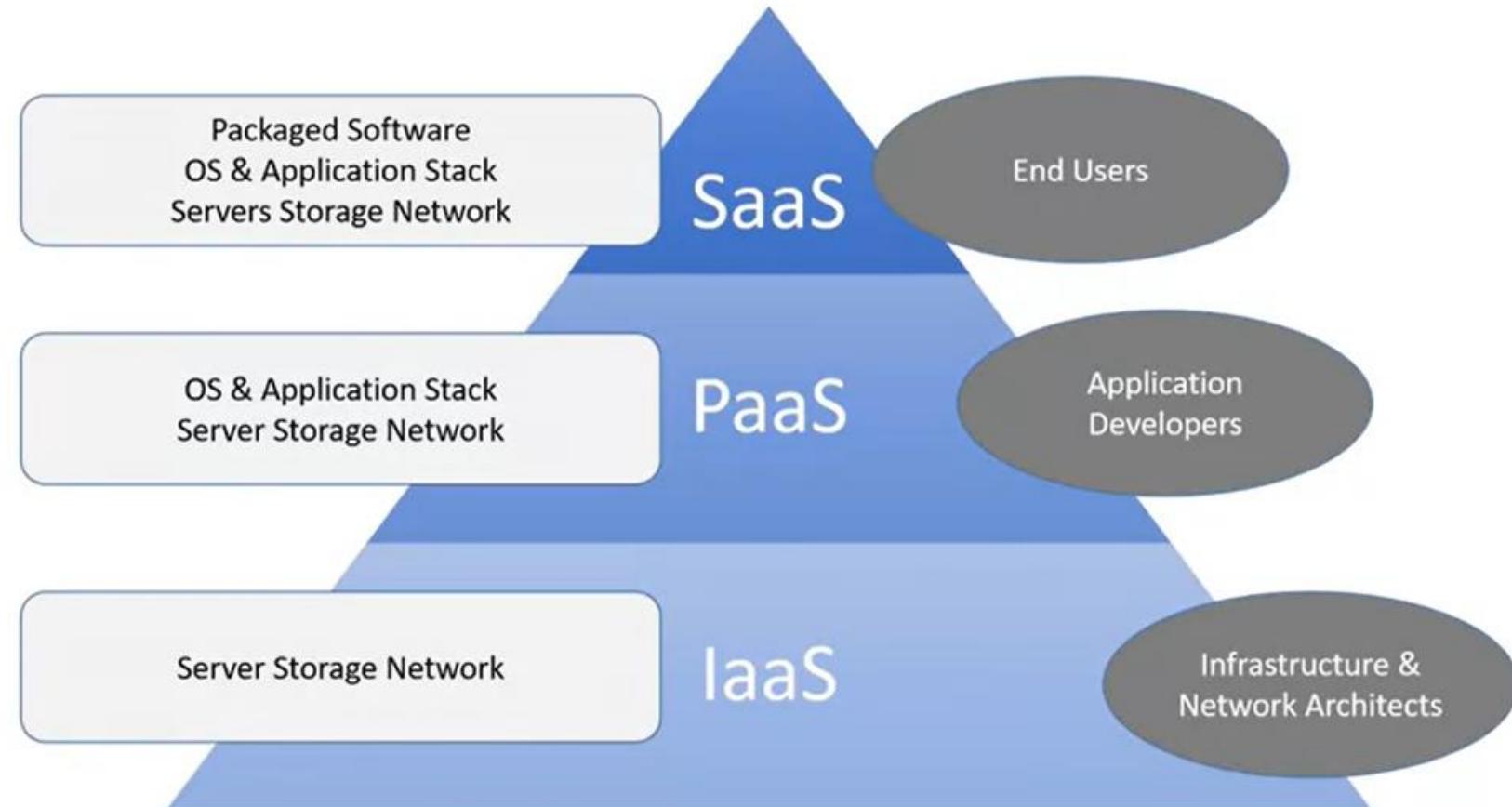
The basic building blocks for cloud IT. Provides access to networking features, computers and data storage space.  
*Don't worry about IT staff, data centers and hardware.*

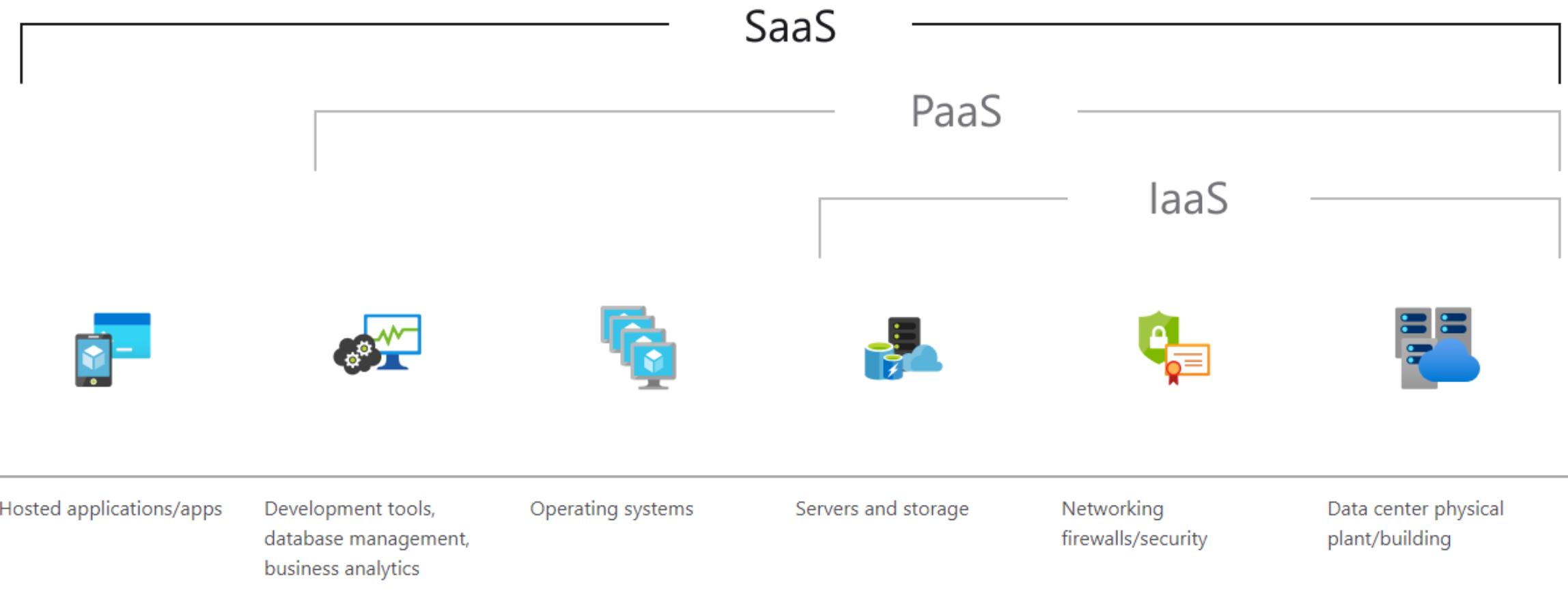




Tomado de: <https://codestoresolutions.com/saas-vs-paas-vs-iaas-which-is-better-for-your-business/>

## Azure Service Model





# IaaS (Infrastructure as a Service)



## Compute

Imagine having a virtual computer that can run application, programs and code.



## Networking

Imagine having a virtual network being able to define internet connections or network isolations



## Storage

Imagine having a virtual hard-drive that can store files

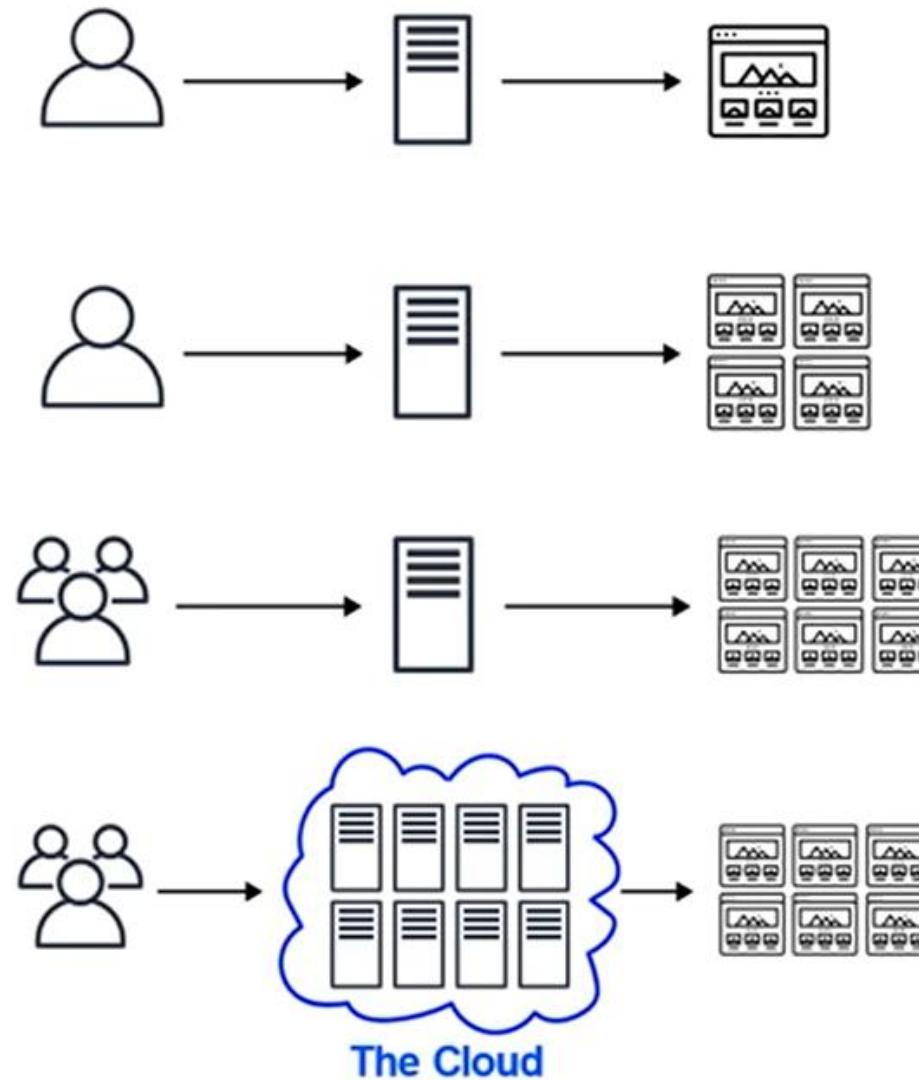


## Databases

Imagine a virtual database for storing reporting data or a database for general purpose web-application



# IaaS



Dedicado: 1 maquina – 1 negocio

Virtual: 1 máquina – 1 – negocio – varias sub-máquinas

Shared: 1 máquina – muchos negocios

Cloud hosting: muchas máquinas – muchos negocios

# PaaS (Platform as a Service)

Mecanismo para combinar IaaS con un conjunto abstracto de servicios middleware, desarrollo de software y herramientas de deployment

Ejemplos:

Power Apps

Elastic beanstalk

Heroku

AppEngine



# S a a S (Software as a Service)

Aplicación de negocios creada y servida por un proveedor en un modelo de múltiples propietarios

Azure DevOps

Gmail

Office356

salesForce



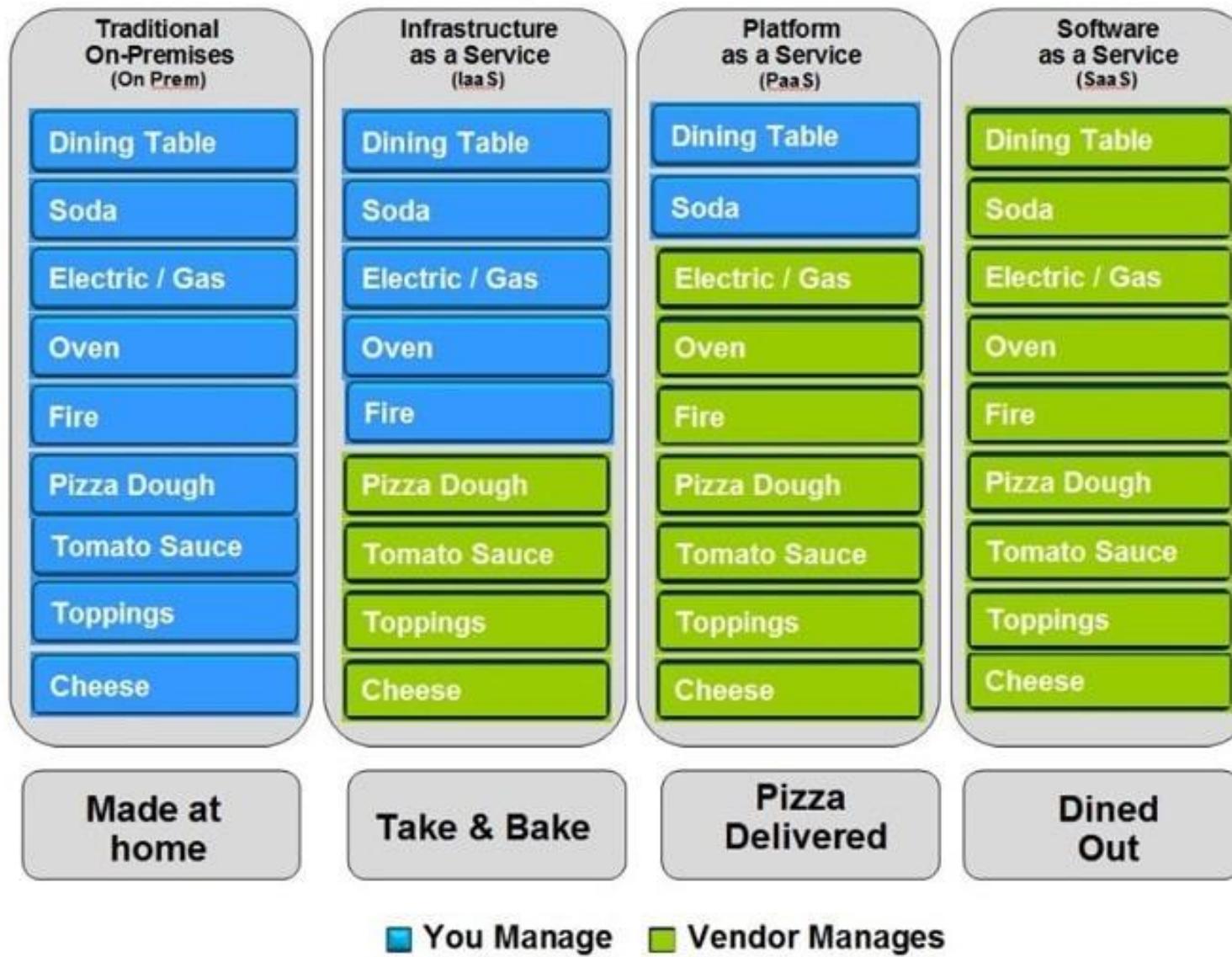
**Azure DevOps**



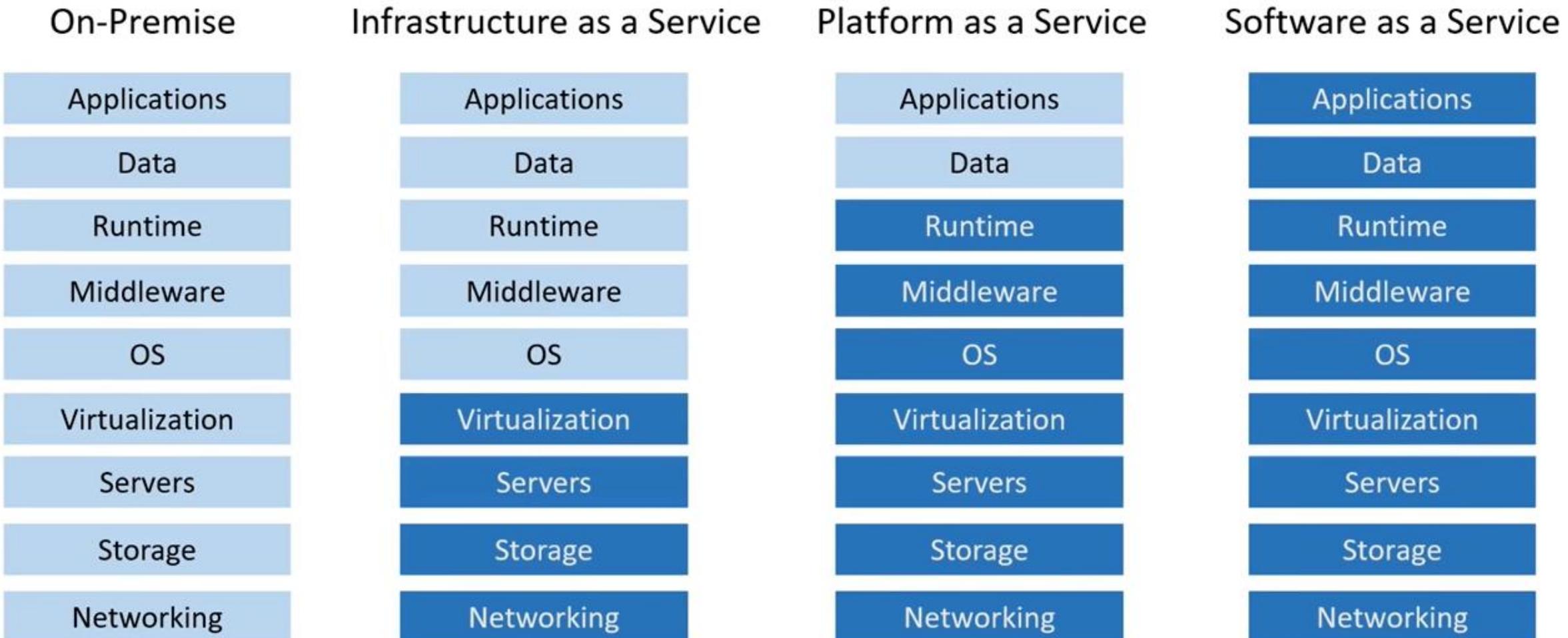
## FaaS ( Function as a service)

Serverless. Empezó como Funciones stateless que se ejecutaban en infraestructuras compartidas. Hoy FaaS es Infraestructura orientada a eventos. Cola de mensajes. Trabajos batch.

# Pizza as a Service



# Responsabilidades en diferentes modelos



Legend:

Customer is Responsible

CSP is Responsible



# Comparación de tipos

	Cost	Security	Level of Configuration	Technical Knowledge
Public Cloud	👍 Most cost-effective	👍 Security Controls by Default 👎 Might not meet security requirements	👎 Limited based on what the Cloud Service Provider exposes to you.	👍 You don't need in-depth knowledge of underlying infrastructure
Private Cloud	👎 Most expensive	👎 no guarantee its secure 👍 can meet any security compliance requirement if you put in the work.	👍 You can configure the infrastructure however you like.	👎 You need to know in-depth how to configure all levels of your infrastructure
Hybrid	👍👎 Could be more cost-effective based on what you offload to the cloud.	👎 you now have to secure your connection to the cloud 👍 can meet all security requirements	👍 You get the best of both worlds.	👎 You need to know in-depth how to configure all levels of your infrastructure and know the CSPs services.



# Comparación capex/opex

## CAPEX

**Gasto de dinero por adelantado en infraestructura física.** De Se adivina lo que se va a gastar.

**Costos de servidores (maquinas)**

**Costo de storage (hard drives)**

**Costos de Network(Routers, cables, switches)**

**Costos de backup y archivo**

**Costo de Recuperación de desastres**

**Costos de datacenter (Arriendo, Aire acondicionado, seguridad física.)**

**Personal técnico**

## OPEX

**Los costos asociados con los datacenters “ON-PREMISES” han cambiado al proveedor de servicios. El cliente solo paga por costos de elementos no físicos. Se paga sin invertir en equipos.**

**Leasing software y personalización de características.**

**Entrenamiento de los empleados en uso de Cloud**

**Soporte**

**Facturación basada en métricas como**

- **Uso de computo**
- **Uso de almacenamiento.**

# Teminología

Availability- Disponibilidad – Habilidad para asegurar que el servicio permanezca funcionando.

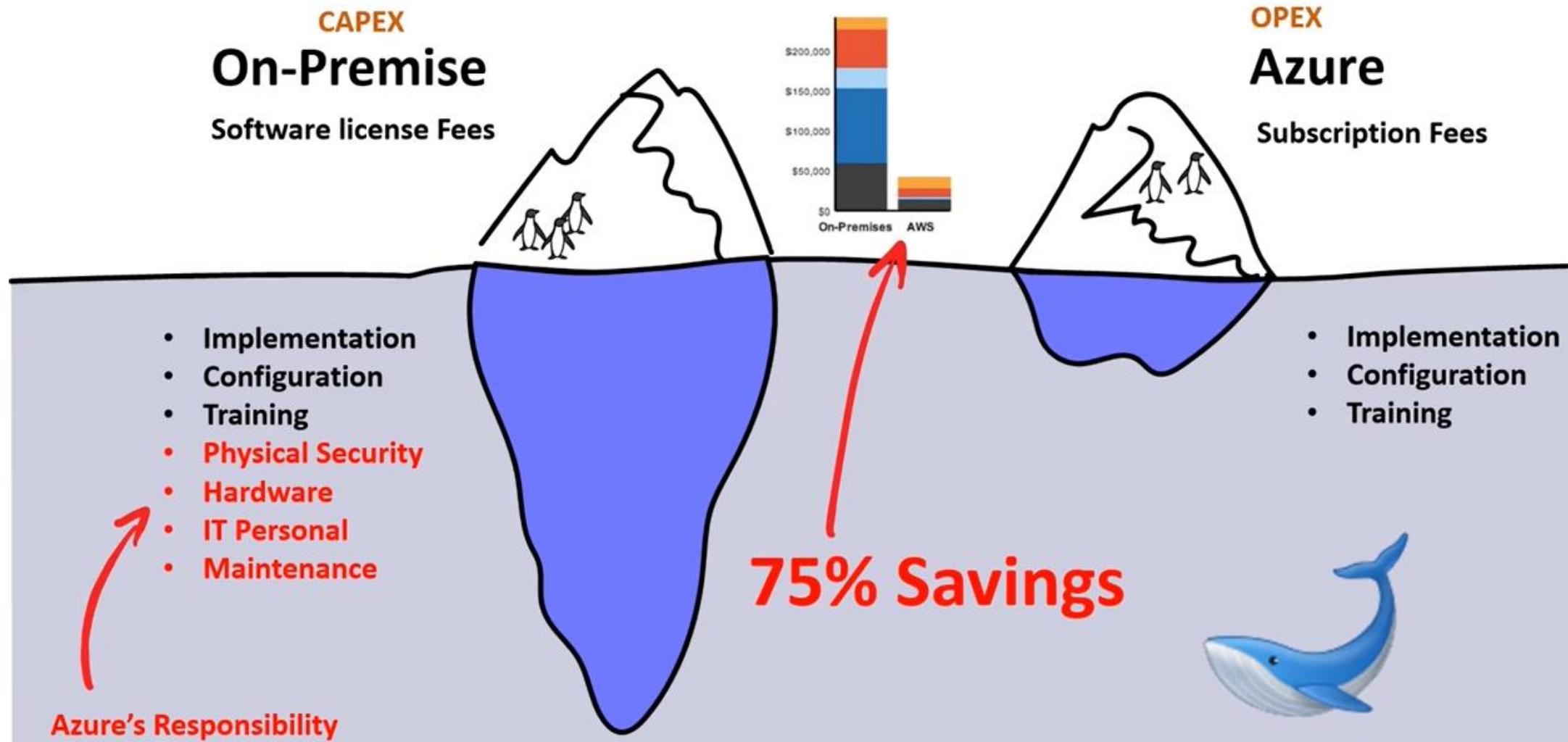
Escalabilidad – habilidad para crecer rápidamente

Elasticidad- habilidad de reducir o crecer de acuerdo a la demanda.

Tolerancia a falla- habilidad de prevenir una falla

Recuperación a desastres – Como se recupera de una falla

# Comparación de precios

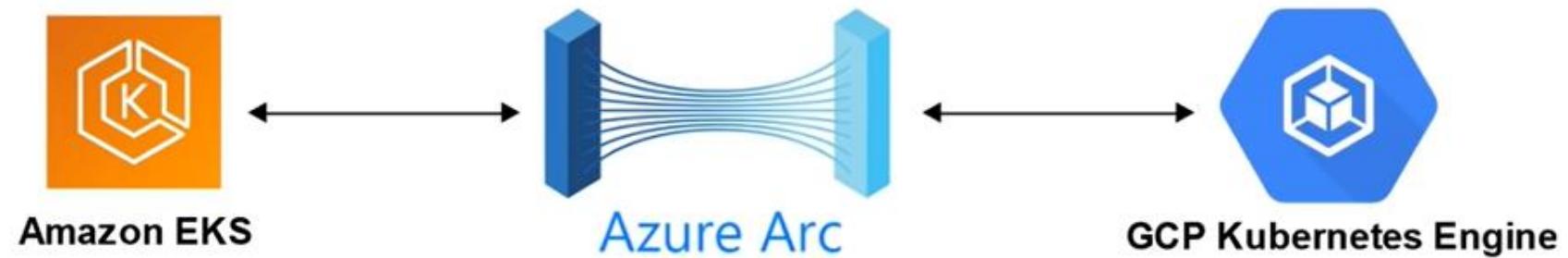


# Multi-cloud

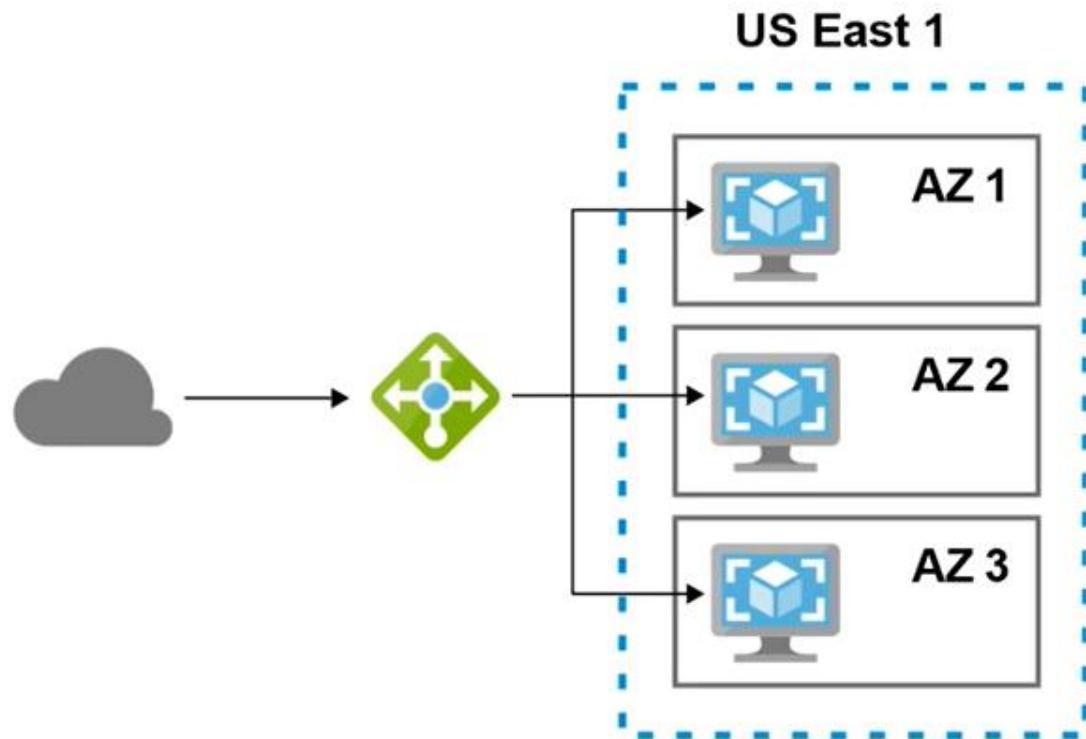
## Cross-Cloud

Using **Multiple Cloud Providers**

Aka multi-cloud, hybrid-cloud



# High Availability



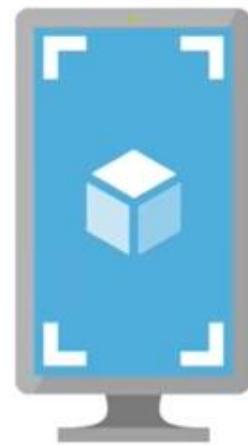
## Azure Load Balancer

A load balancer allows you to evenly distribute traffic to multiple servers in one or datacenter. If a datacenter or server becomes unavailable (unhealthy) the load balancer will route the traffic to only available datacenters with servers.

Running your workload across multiple **Availability Zones** ensures that if 1 or 2 **AZs** become unavailable your service / applications remains available.



# Alta escalabilidad



**Vertical Scaling**

Scaling **Up**

Upgrade to a bigger server



**Horizontal Scaling**

Scaling **Out**

Add more servers of the same size

# Alta escalabilidad



## Azure VM Scale Sets

Automatically increase or decrease in response to demand or a defined schedule.

## Horizontal Scaling

Scaling **Out** — Add more servers of the same size

Scaling **In** — Removing more servers of the same size

Vertical Scaling is generally hard for traditional architecture so you'll usually only see horizontal scaling described with Elasticity.

# Evolución de la computación

\*Dedicated



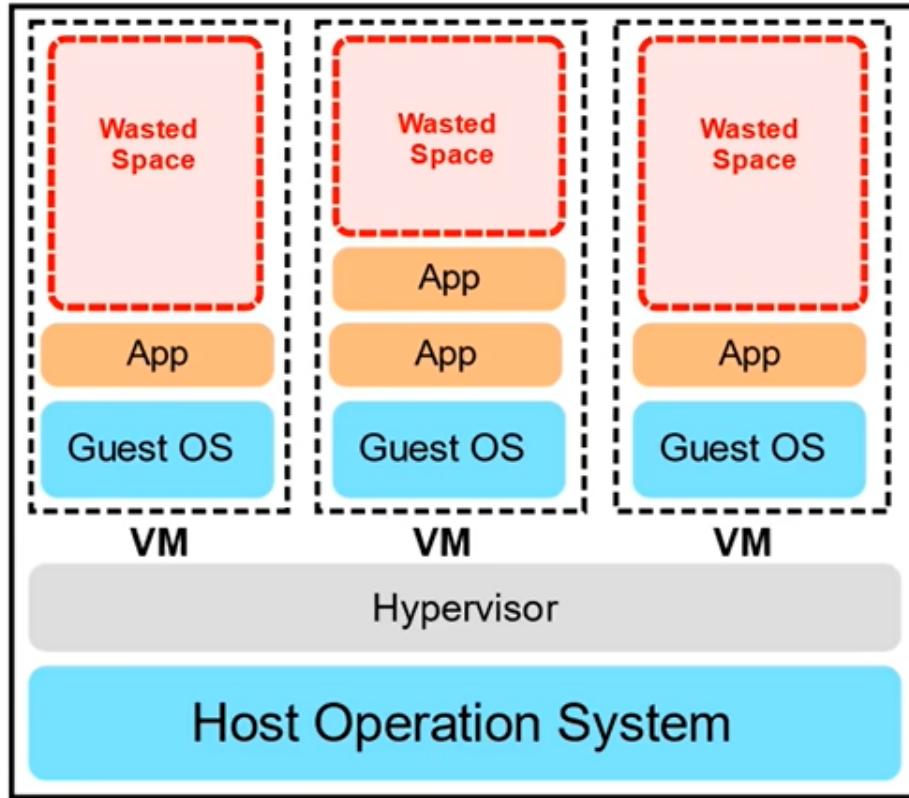
VMs



Containers



Functions



- You can run **multiple Virtual Machines on one machine**.
- **Hypervisor** is the software layer that lets you the VMs
- A physical server shared by multiple customers
- You are pay for a fraction of the server
- You'll overpay for an underutilized Virtual Machine
- You are limited by your Guest Operating System
- Multiple apps on a single Virtual Machine can result in conflicts in resource sharing

# Retos y oportunidades



# Retos

Requiere un alto consumo de ancho de banda

Acuerdos que favorecen a los proveedores

Incompatibilidad entre servicios provistos

Riesgos de seguridad (data leakage, data loss or theft)

Hijacking of account or service

Costos de migración

# Oportunidades

Costos: Se paga lo que se consume. (PAYG=Pay-as-you-go)

Global: Se lanzan trabajos en cualquier lugar del mundo

Seguridad: El proveedor se encarga de la seguridad física.

Confiable: Se tiene backup, recuperación de desastres, replicación y tolerancia a fallas.

Escalable: Incrementa o reduce los recursos o servicios basados en la demanda.

Elástica: Automatiza el escalo durante picos y valles en la demanda.

Flexibilidad:

Centralización de la data.

## Actividad

Haga un caso de negocio para su iniciativa cloud



*Key  
Partners*



*Key  
Activities*



*Value  
Proposition*



*Customer  
Relationships*



*Customer  
Segments*



*Key  
Resources*



*Channels*



*Cost  
Structure*



*Revenue  
Streams*



## Actividad

Escoja un punto de vista: pro o con.

Prepare un argumento

Preséntelo en el debate abierto.

Extraiga conclusiones.

# Migración hacia la nube



# Aspectos

Aspectos culturales

Definición de requerimientos (seguridad,  
disponibilidad)

Capacitación

Modernización de prácticas habilidades y roles.

Adecuación de aplicaciones.

Licenciamiento

Recomendaciones

Proyectos piloto

Entrenamiento

Adecuación de sistemas.

Contratación de personas experimentadas en  
proyectos Cloud (serán los champions).

Recomendaciones

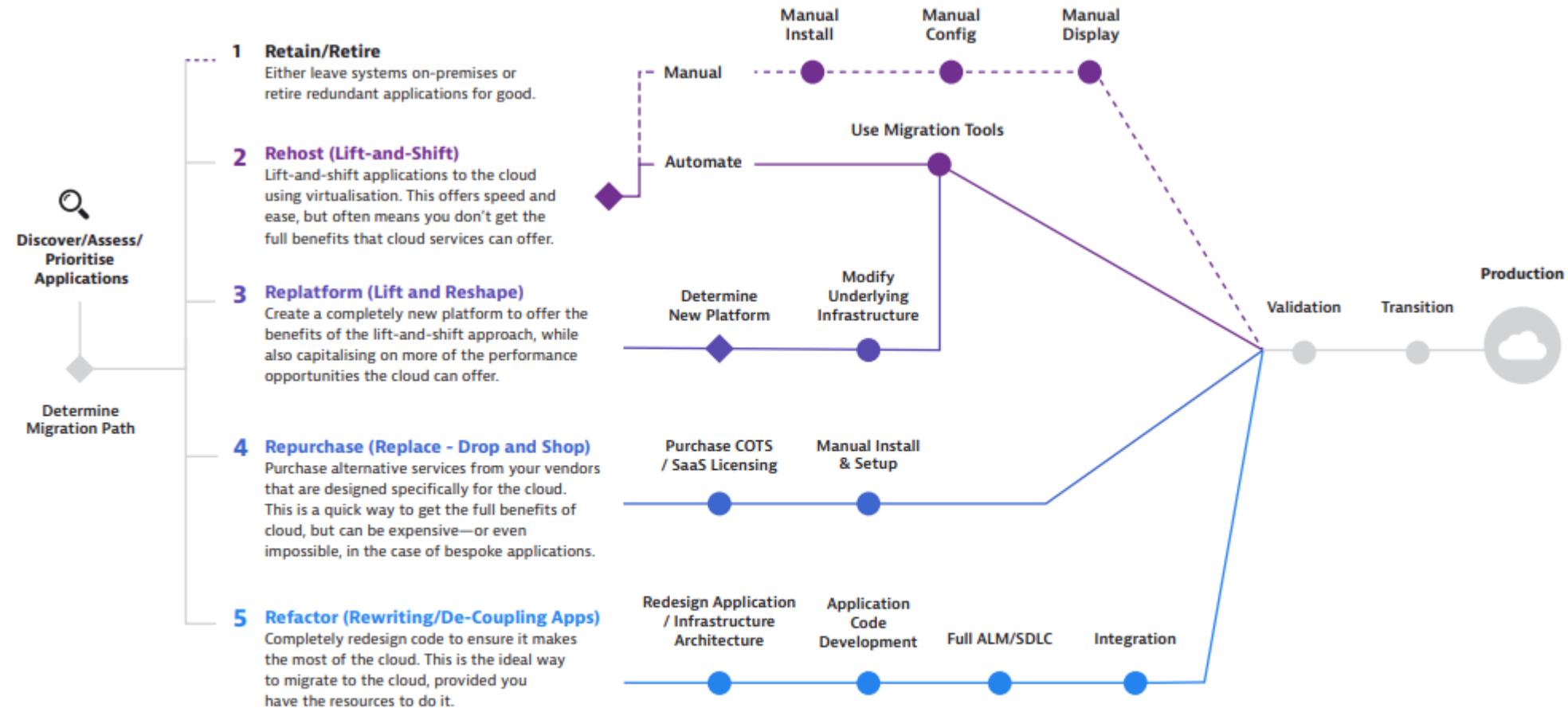
Proyectos piloto

Entrenamiento

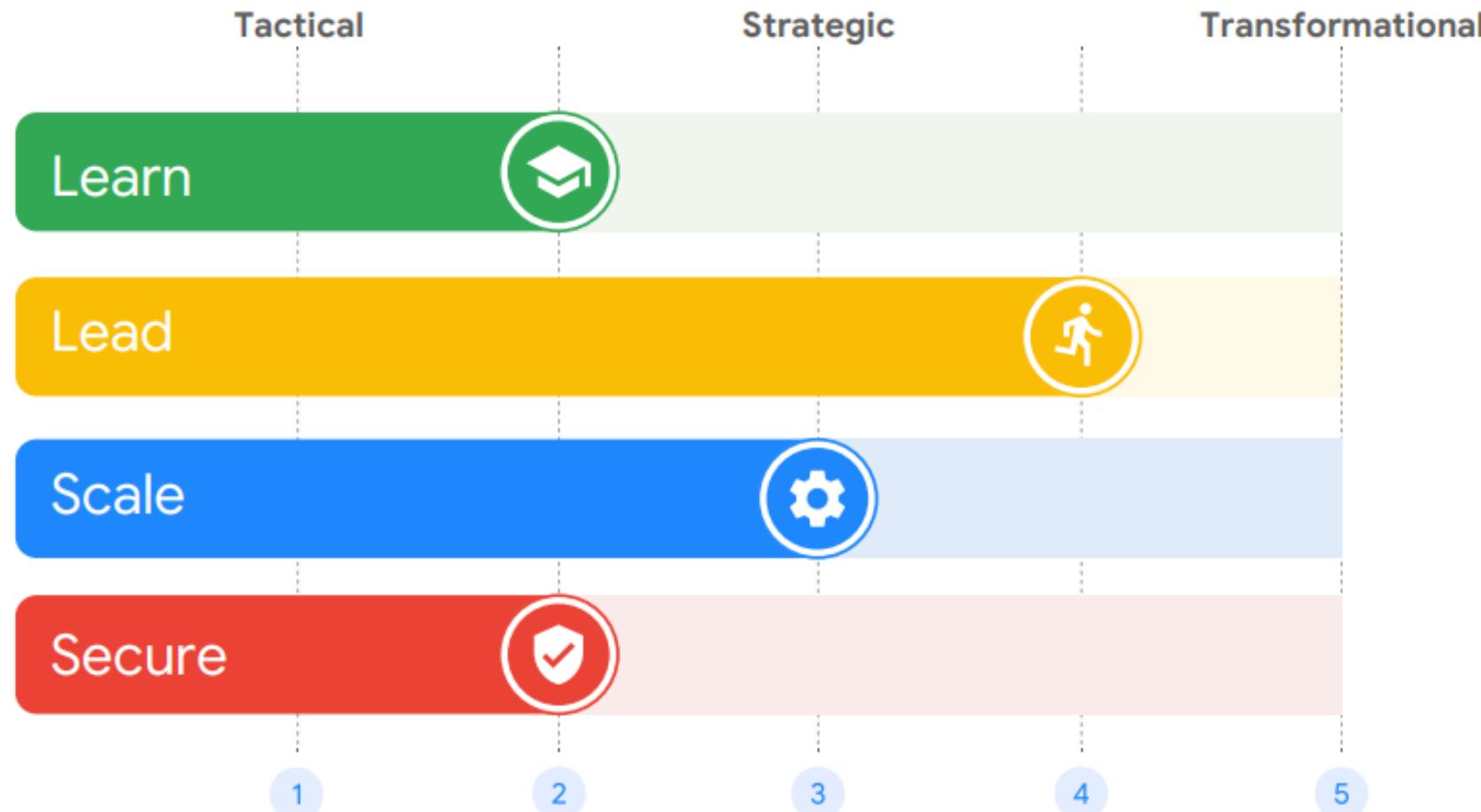
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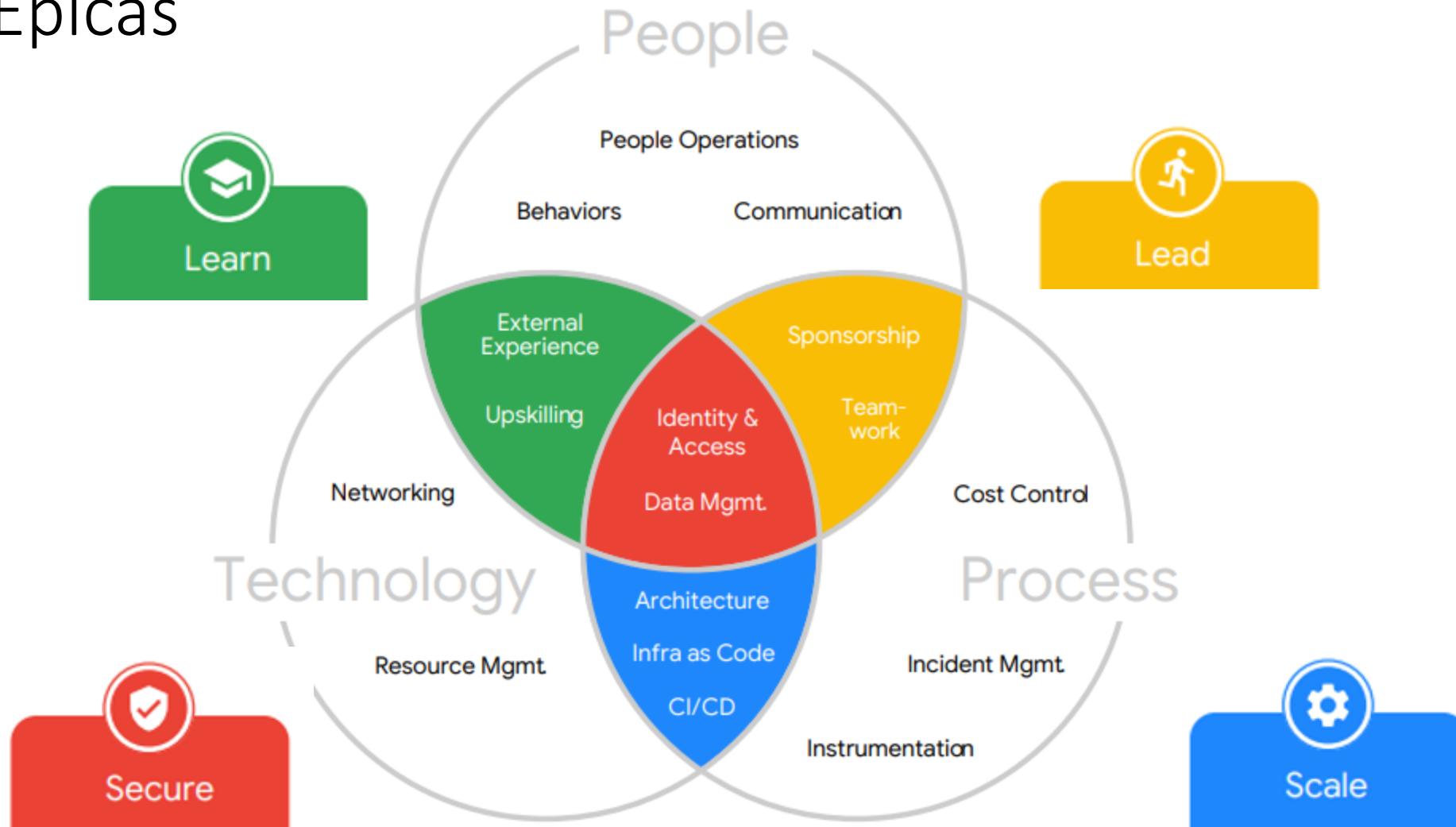
# Caminos de migración



# Google cloud adoption framework

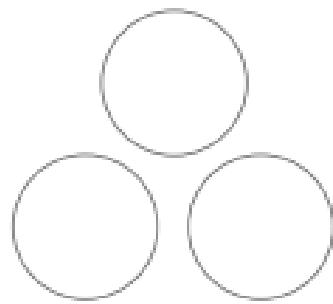


# Temas/Epicas



Tomado de: Google cloud adoption framework

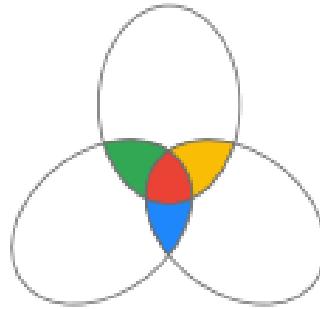
# Fases



## Tactical

AHORRO

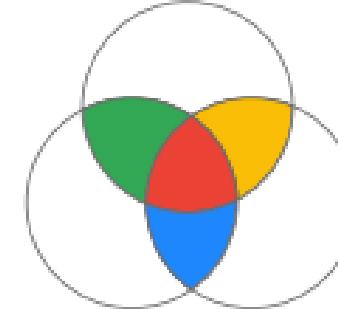
Lo que hago  
cuando tengo que hacer



## Strategic

GANANCIA

Lo que hago  
Cuando no tengo que hacer

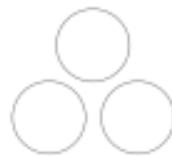


## Transformational

INNOVACIÓN

Lo que hago  
para hacer más

# Fases



**Tactical:** Individual workloads are in place, but no coherent plan encompassing all of them with a strategy for building out to the future.

The focus is on reducing the cost of discrete systems and on getting to the cloud with minimal disruption. The wins are quick, but there is no provision for scale.



**Strategic:** A broader vision governs individual workloads, which are designed and developed with an eye to future needs and scale.

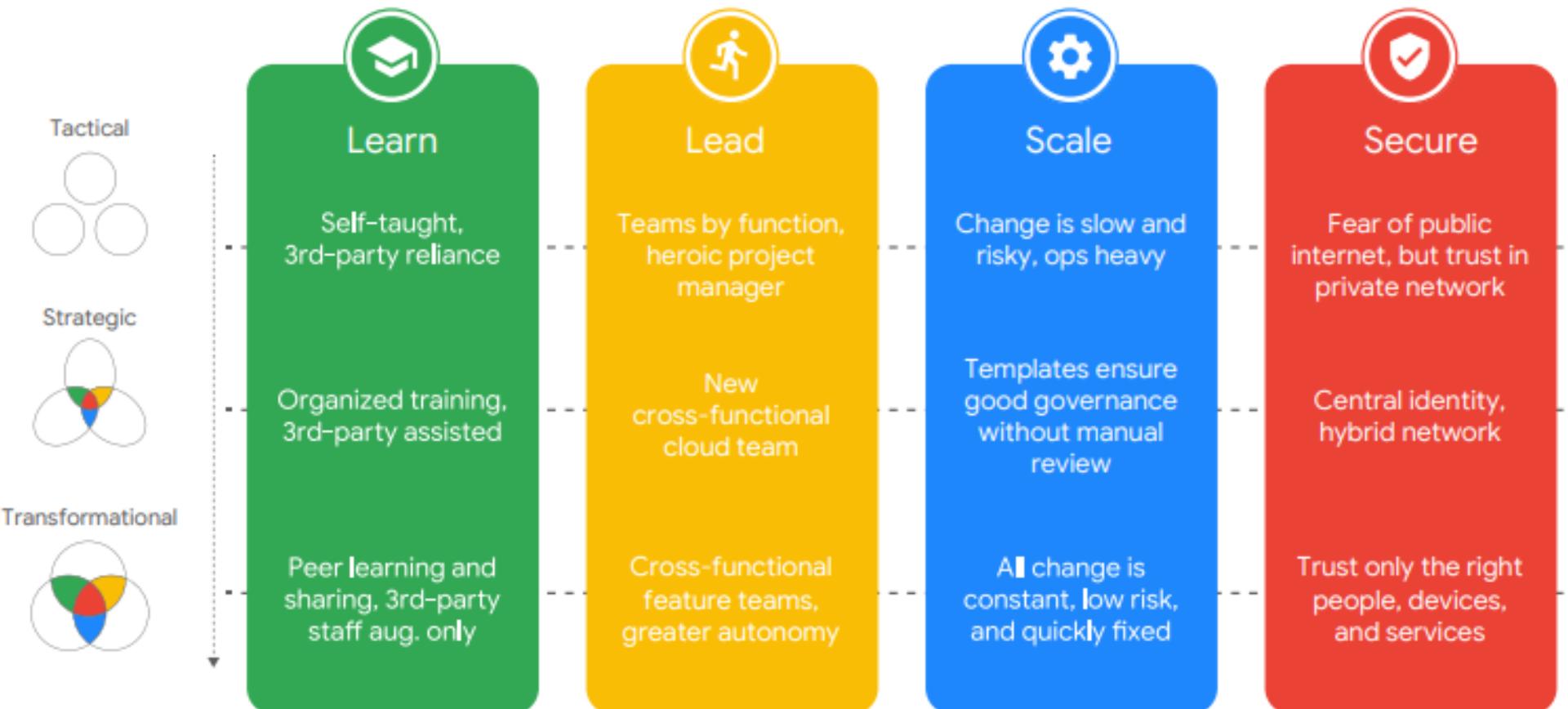
You have begun to embrace change, and the people and processes portion of the equation are now involved. IT teams are both efficient and effective, increasing the value of harnessing the cloud for your business operations.



**Transformational:** With cloud operations functioning smoothly, you've turned your attention to integrating the data and insights garnered from working now in the cloud.

Existing data is transparently shared. New data is collected and analyzed. The predictive and prescriptive analytics of machine learning applied. Your people and processes are being transformed, which further supports the technological changes. IT is no longer a cost center, but has become instead a partner to the business.

# Cloud maturity scale



## Actividad

Evaluar el nivel de madurez de su empresa en  
Cloud computing en las épicas de:

Upskilling

External experience

Sponsorship

Teamwork





# La nube y los medios sociales

# Influencia de la nube

Millones de usuarios

Millones de contenidos compartidos

Cloud computing habilita a social media para consumir recursos computacionales como una “utility” en lugar de construir y mantener su propia infraestructura.

Cloud computing favorece el crecimiento de social media.

# Dynamic Virtual Organizations

Se forman conexiones

Se comparte información

# Cloud computing, social media y carbono

“Como con cualquier otra tecnología, el revisar social media tiene un impacto en la huella de carbono, y es más grande de lo que uno pueda pensar. El uso de 10 plataformas por cinco minutos cada día equivale a 20Kg de carbono al año. Es decir como si se condujera un auto por 83 kilómetros”

Brett Mifsud, general manager of energy at Compare the Market

# Facebook outage: what went wrong and did it take so long to fix after social network went down?

of users were unable to access Facebook, Instagram and WhatsApp for hours while the social media giant scrambled to fix services



## Mark Zuckerberg apologises for Facebook, WhatsApp disruption

Facebook cited faulty configuration changes on its routers as the root cause of the nearly six-hour outage that prevented the company's 3.5 billion users from accessing its social media and messaging services.

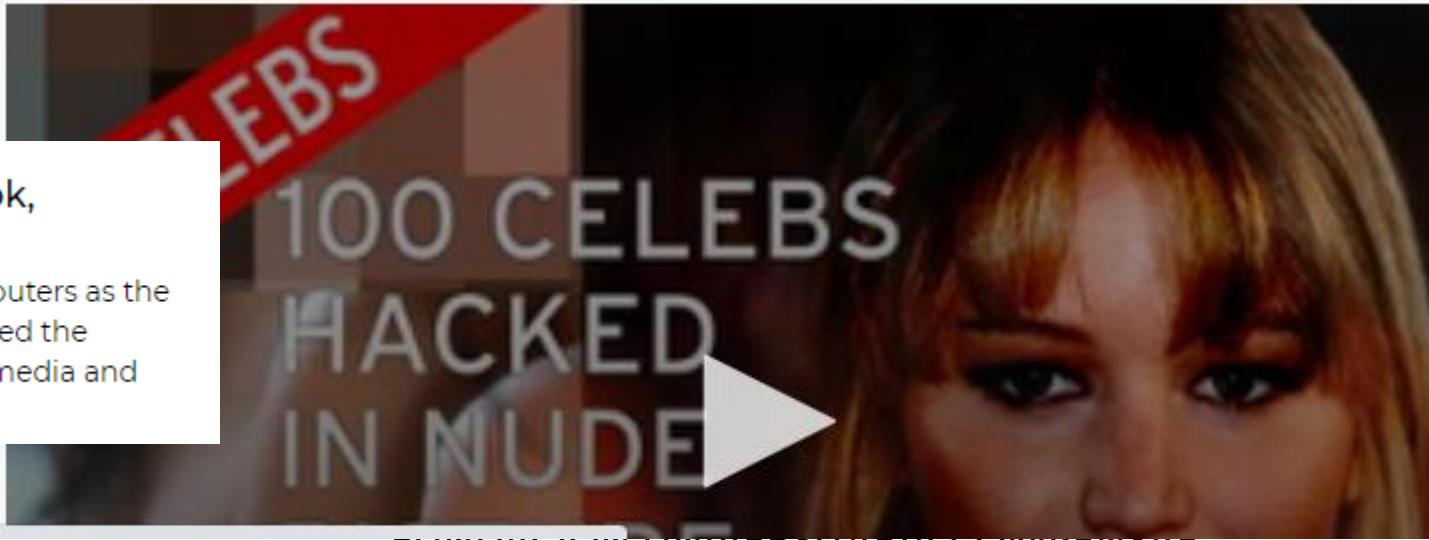


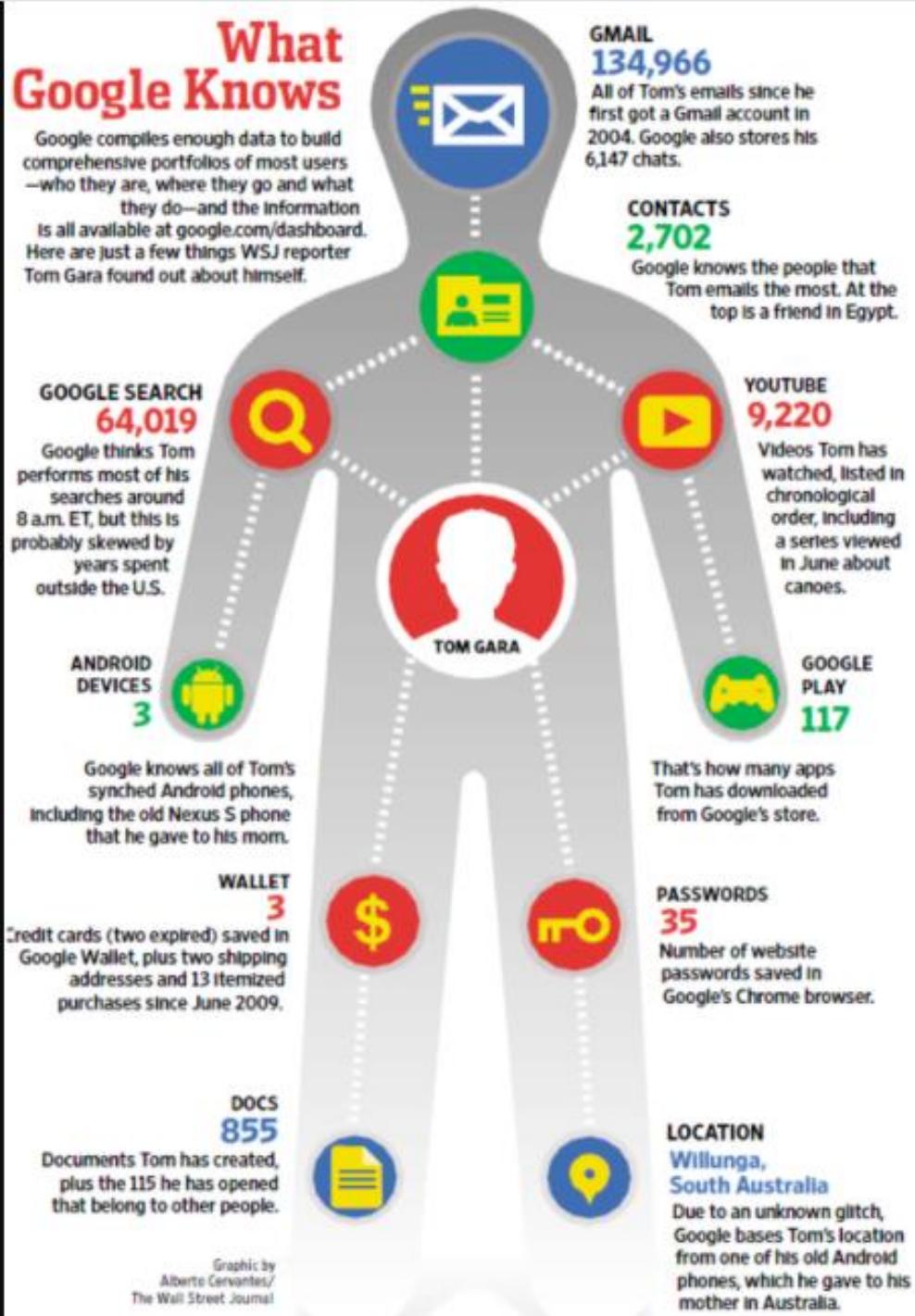
# Jennifer Lawrence leaked nude photos: Apple iCloud password hack could be 'responsible for security breach'

Tech experts are now saying weak passwords gave hackers the chance to access private pictures thanks to a software glitch

By David Raven

13:41, 1 Sep 2014 | UPDATED 10:37, 23 Sep 2014





# Qué tanto sabe Google de nosotros?

# BIG BROTHER



# IS WATCHING YOU

**N** PELÍCULA

# NADA es PRIVADO

## Nada es privado

2019 | 16+ | 1 h 54 min | Películas documentales

Documental sobre Cambridge Analytica, la consultora política que simboliza el lado oscuro de las redes a partir de las elecciones presidenciales de 2016 en EE. UU.



Si ya eres suscriptor, [activate sin costo](#)

## Suscríbete a EL TIEMPO DIGITAL

El medio colombiano informativo más consultado en Internet.

### PLAN DIGITAL ANUAL

\$ 9.992 / MES

Oferta especial de  
lanzamiento 35% de  
descuento

Valor anual con descuento

\$ 119.900

Valor anual sin descuento

\$ 184.900

[SUSCRÍBETE](#)

En este portal utilizamos "cookies" propias y de terceros para gestionar el portal, elaborar información estadística, optimizar la funcionalidad del sitio y mostrar publicidad relacionada con sus preferencias a través del análisis de la navegación. Puede conocer cómo deshabilitarlas u obtener más información [aquí](#)

ACEPTO

# Social Cloud

Qué quiero compartir?

Con quién lo quiero compartir?

Dónde están mis archivos?

Dónde guardo la copia de respaldo?

Está segura mi información?

# Social networks and analytics

Nada es 100% seguro

Big brother

Bullying

Marketing

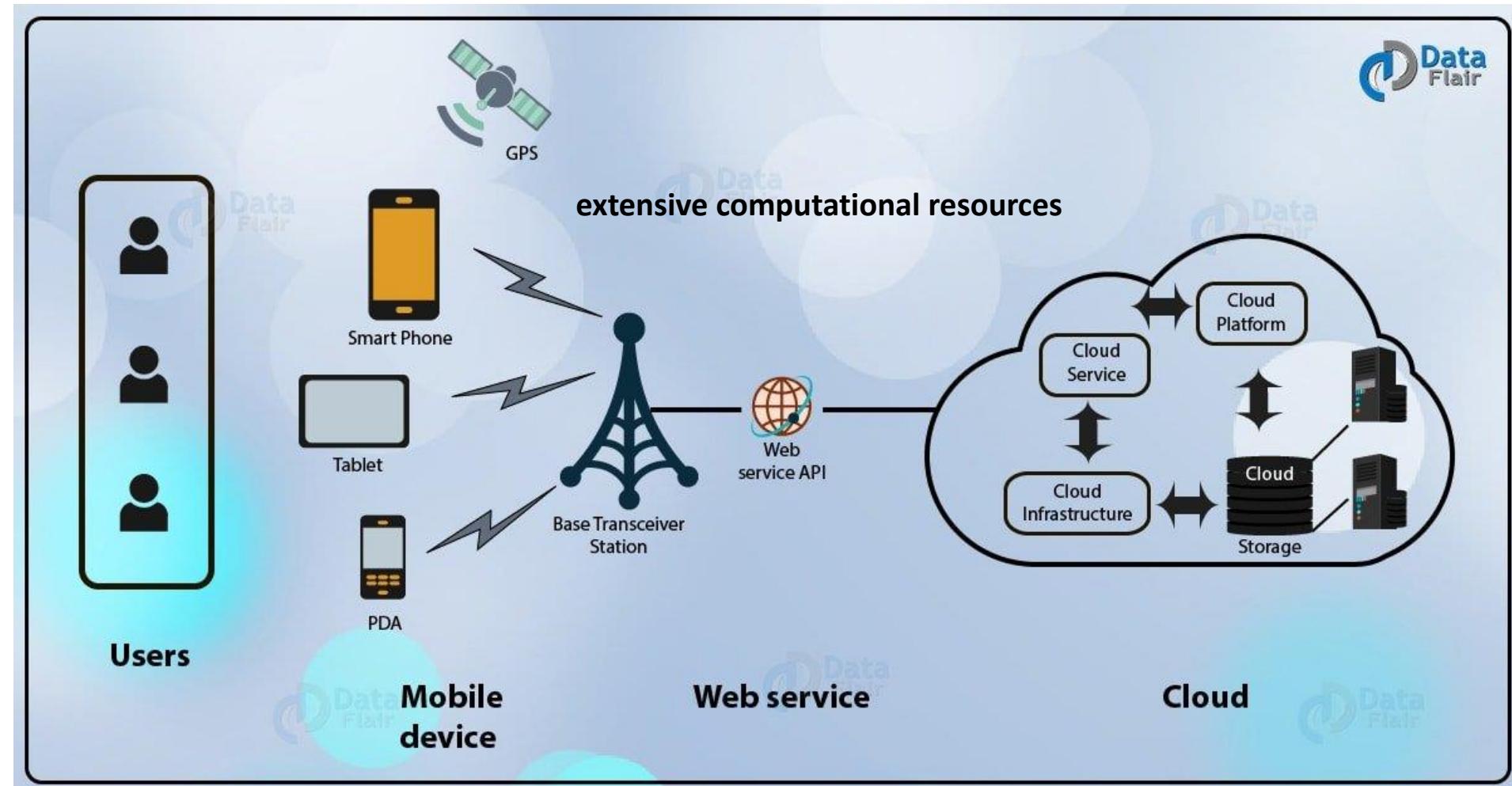
Product placement

Mi privacidad llega hasta donde yo quiero que llegue.

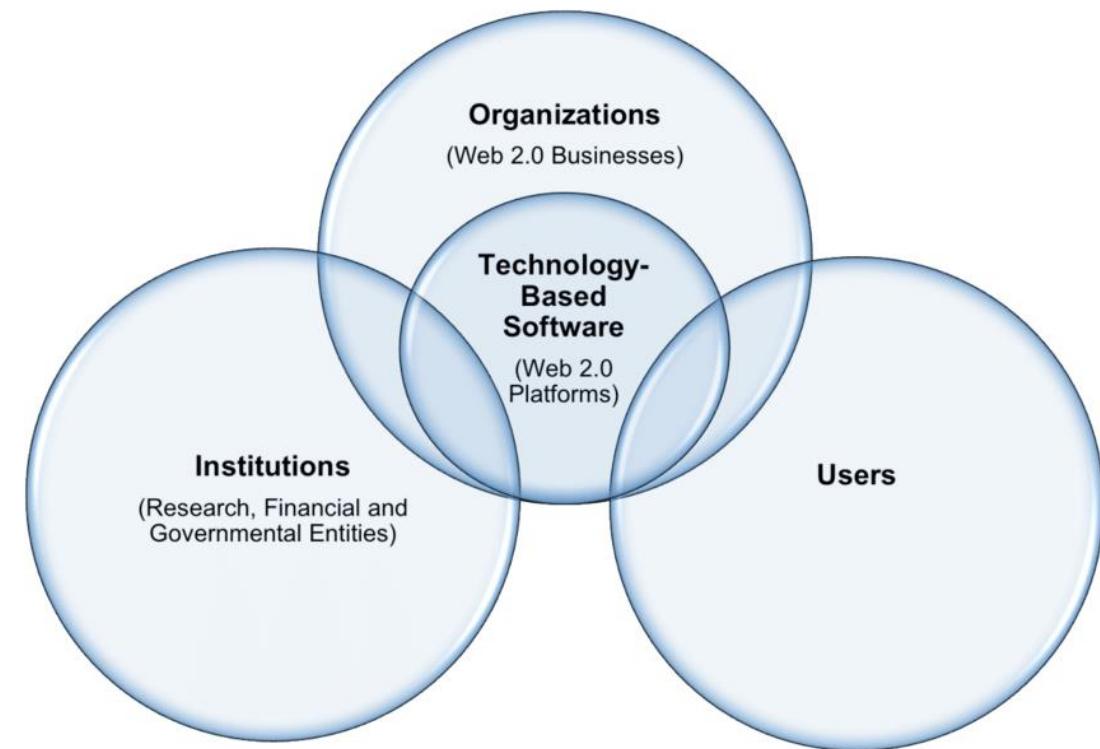
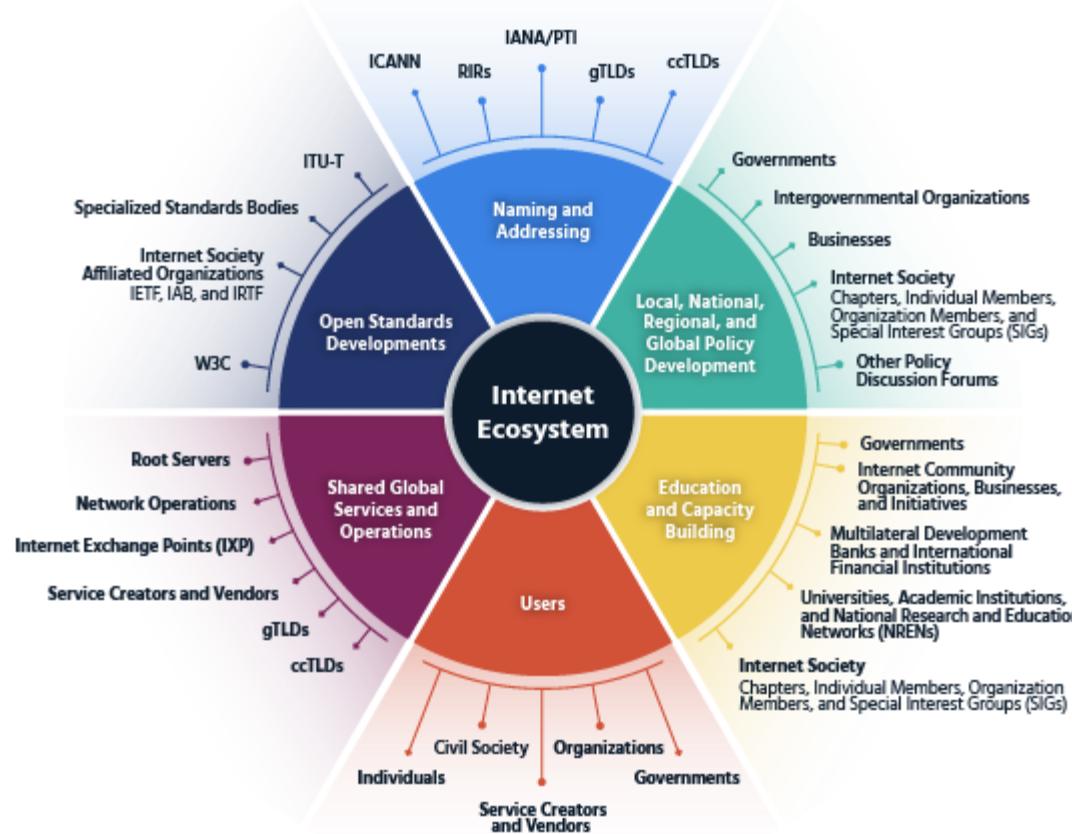
# La nube móvil y el ecosistema web



# Mobile cloud computing



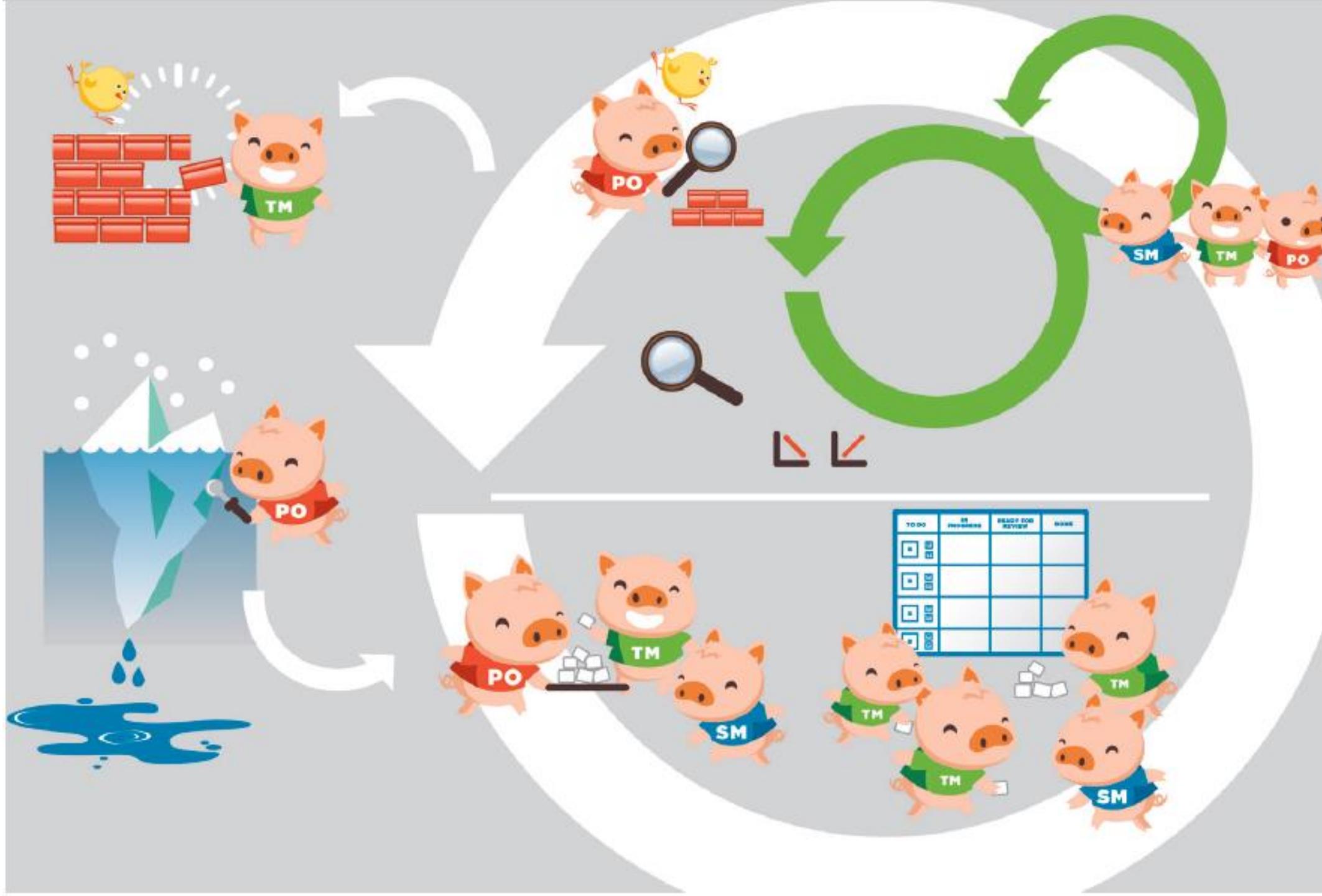
# Ecosistema web

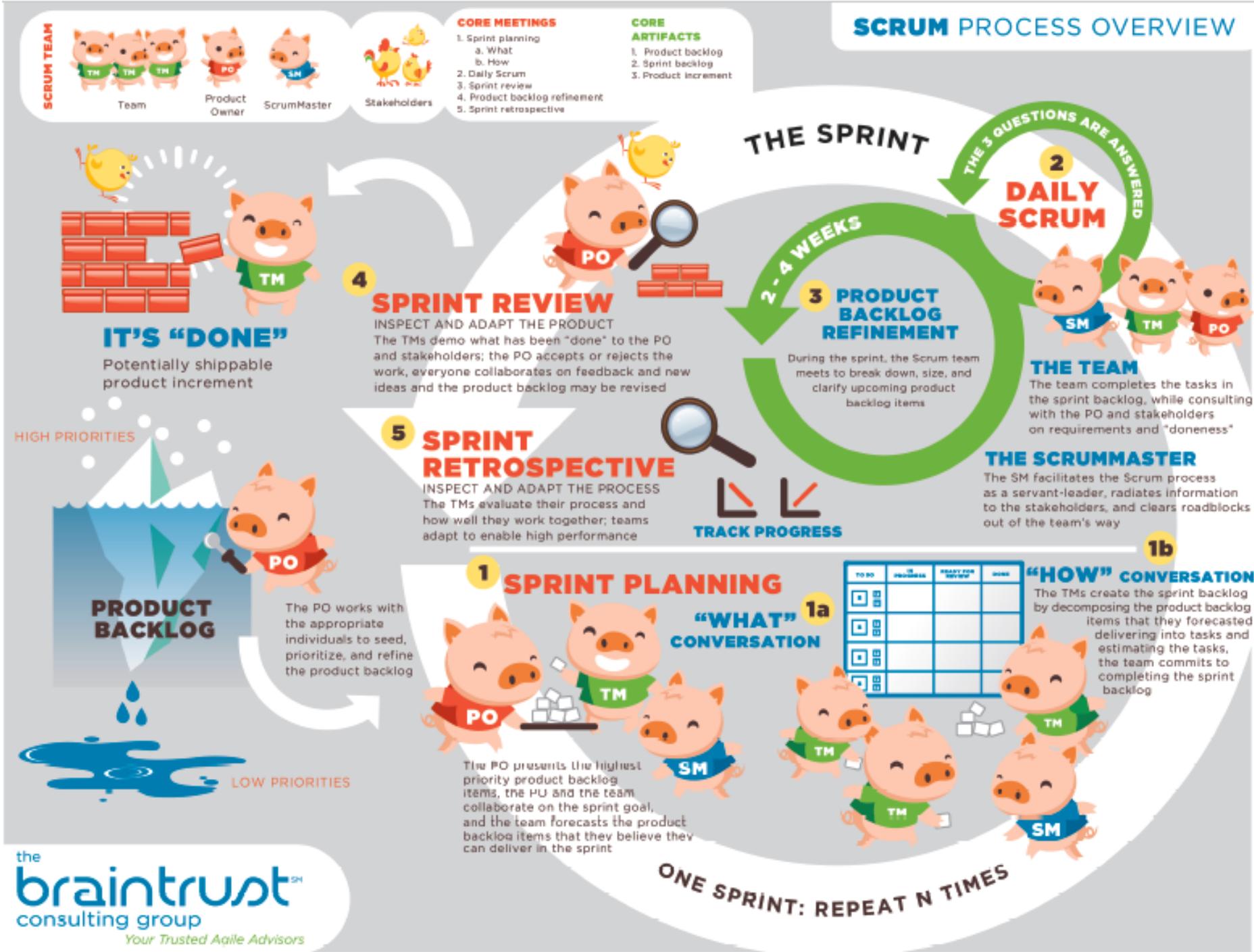


# SCRUM



fundación  
universitaria





# SCRUM model

Name	Description
 Bug	Describes a divergence between required and actual behavior, and tracks the work done to correct the de...
 Epic	Epics help teams effectively manage and groom their product backlog
 Feature	Tracks a feature that will be released with the product
 Impediment	Tracks an obstacle to progress.
 Product Backlog Item	Tracks an activity the user will be able to perform with the product.
 Task	Tracks work that needs to be done.
 Test Case	Server-side data for a set of steps to be tested.
 Test Plan	Tracks test activities for a specific milestone or release.
 Test Suite	Tracks test activities for a specific feature, requirement, or user story.

# Actividad

Nombrar PO, SM, DEV

Crear personas en la Organización.

Definir Product Goal (Debe ir en la Epic)

Definir Features del Product

Definir PBIs de cada feature

Definir Tasks de cada PBI



DevOps



fundación  
universitaria

# Quién o qué es lo más importante en el Quirófano?



# PROCESOS QUE GENEREN VALOR AL CLIENTE





Nuestra meta es  
Entregar un millón de  
Unidades este trimestre

Tenemos alguna meta  
Que incluya hacer felices  
A los clientes?

-Estoy hablando de NUESTRAS  
Metas, no las de ELLOS.  
-Sí, totalmente diferente.

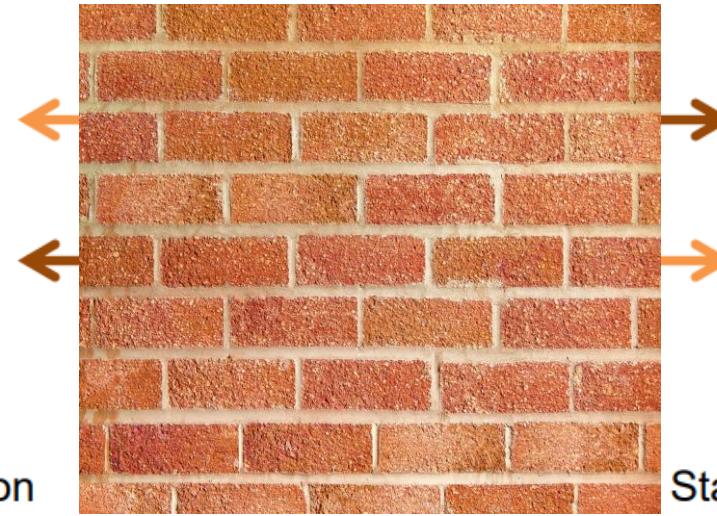
**LES HA PASADO QUE TODO  
EL MUNDO HACE BIEN SU  
PARTE,  
PERO EL RESULTADO FINAL  
ESTÁ MAL?**



## A. DEVIA



Change Orientation



## B. O'PS

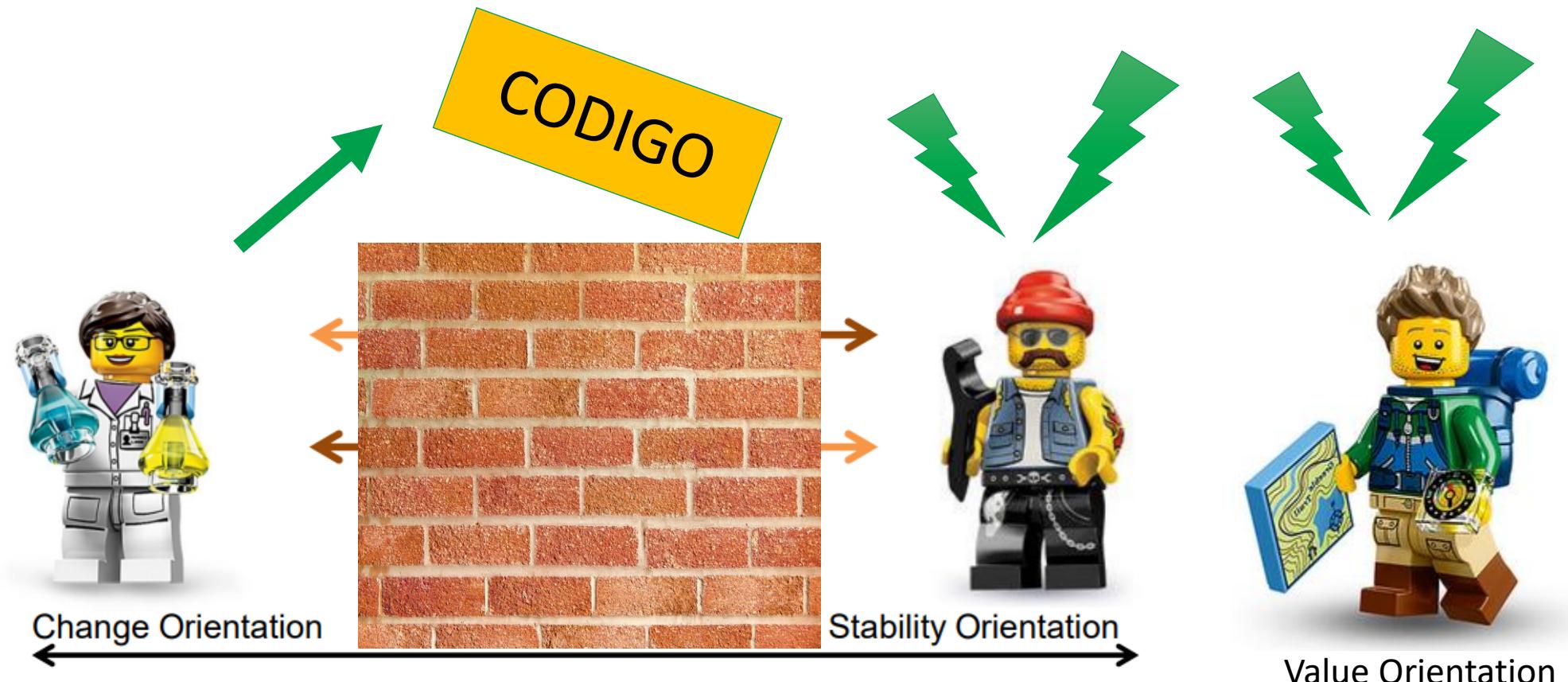


Stability Orientation



Value Orientation

?





# KOWALSKI OPCIONES



Devia y O'ps  
ENTREGAN VALOR  
AL  
CLIENTE

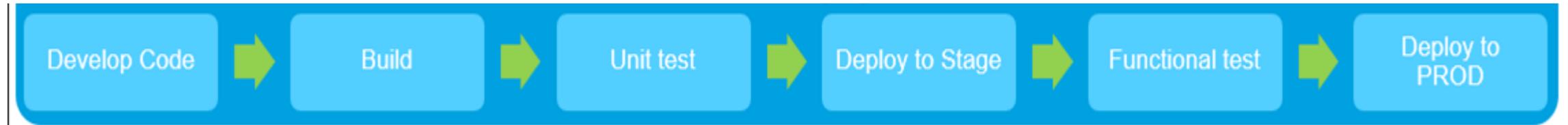


META COMÚN:  
Entrega de características + Estabilidad



Value Orientation

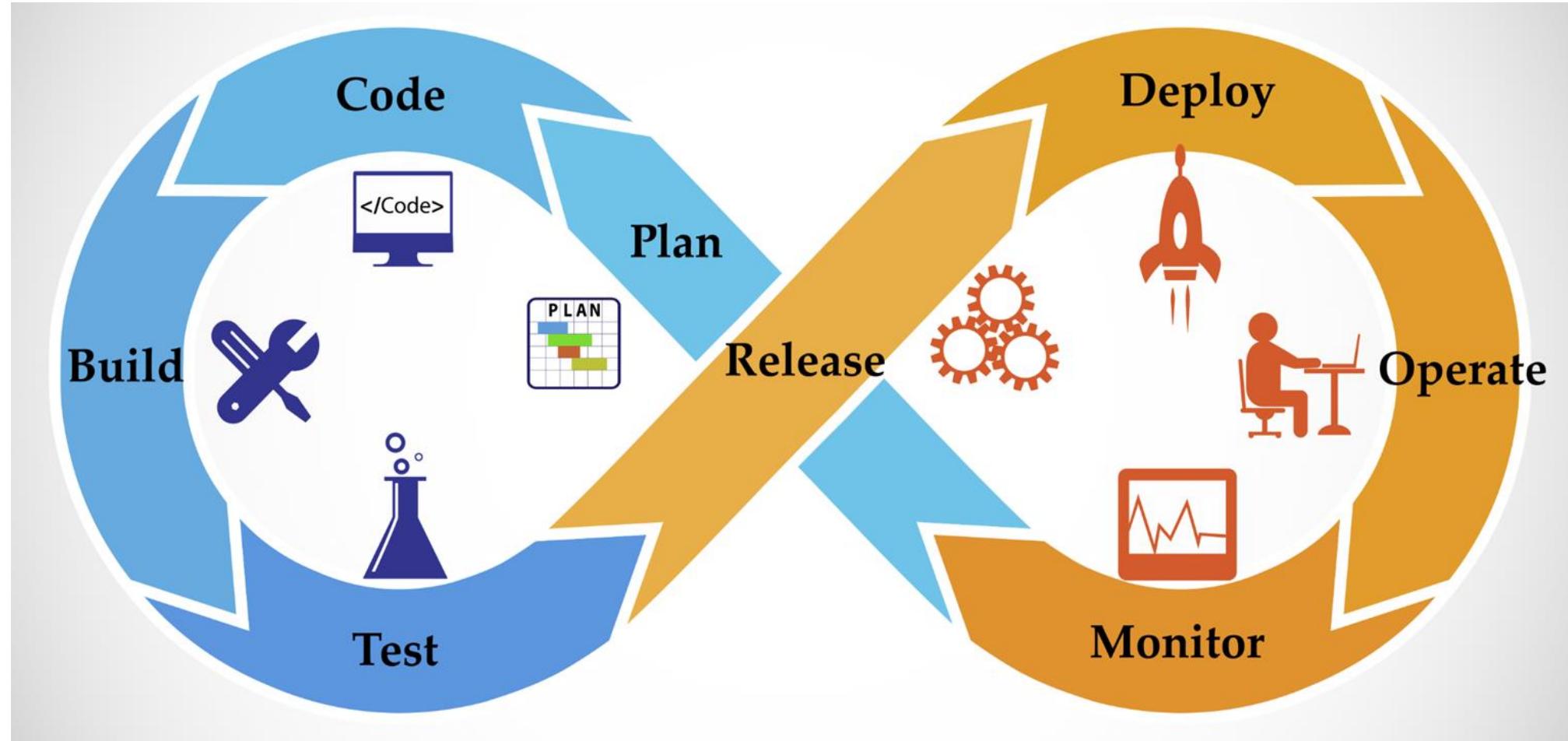
# Lead and value activities



Develop	Build	Unit Test	Deploy to Stage	Functional Test	Deploy to PROD
					TIEMPO DE VALOR
					TIEMPO DE ESPERA
					TOTAL









Azure Devops



- Has a directory of hundreds of services
- Can run virtual machines on Azure in services not exclusive to Azure
- Microsoft is also using Azure to extend Windows
- Organizations can now use Azure Active Directory
- Lift and ship apps
- Provides features of on-premises Windows Server Active Directory without installing controllers

A Home - Microsoft A X Azure App Service d X Configure continuo X Configuración de ur X az appservice | Micro X (2) WhatsApp X Tarea X + - =

https://portal.azure.com/#home

Microsoft Azure Search resources, services, and docs (G+) aayalap@ucompensar.e... UCOMPENSAR (UCOMPENSAR.E...

Azure services

Create a resource Free services Free services View SQL databases Data factories Resource groups Machine learning More services

Recent resources

Name	Type	Last Viewed
DFNodes	Data factory (V2)	4 days ago
cloud-shell-storage-southcentralus	Resource group	4 days ago
sa93383632	Storage account	4 days ago
myresourcegroup	Resource group	4 days ago

See all

Navigate

Subscriptions Resource groups All resources Dashboard

https://portal.azure.com/#blade/Microsoft\_Azure\_Billing/FreeServicesBlade

Windows 11:49 p.m. 2/05/2022



# We need a few more details

Your name:

Alfonso Ayala Paloma

We'll reach you at:

aayalap@ucompensar.edu.co

From:

Colombia

- I would like to receive information, tips, and resources related to Microsoft developer tools and services, including Azure DevOps, Visual Studio, Visual Studio Subscriptions, and other Microsoft products and services.

Continue

Microsoft

Alfonso Ayala Paloma Sign out



Alfonso Ayala  
Paloma

[Edit profile](#)[aayalap@ucompensar.edu.co](mailto:aayalap@ucompensar.edu.co)

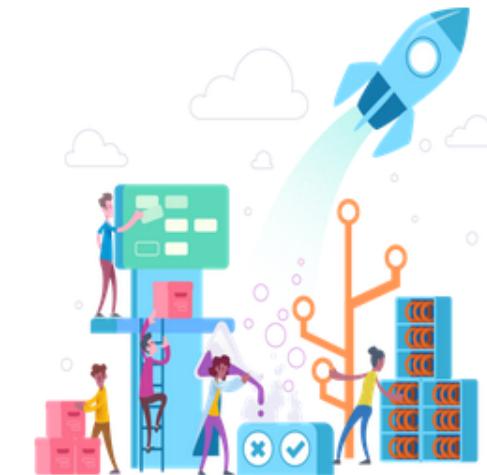
Ucompensar

Colombia

aayalap@ucompensar.edu.co

## Visual Studio Dev Essentials

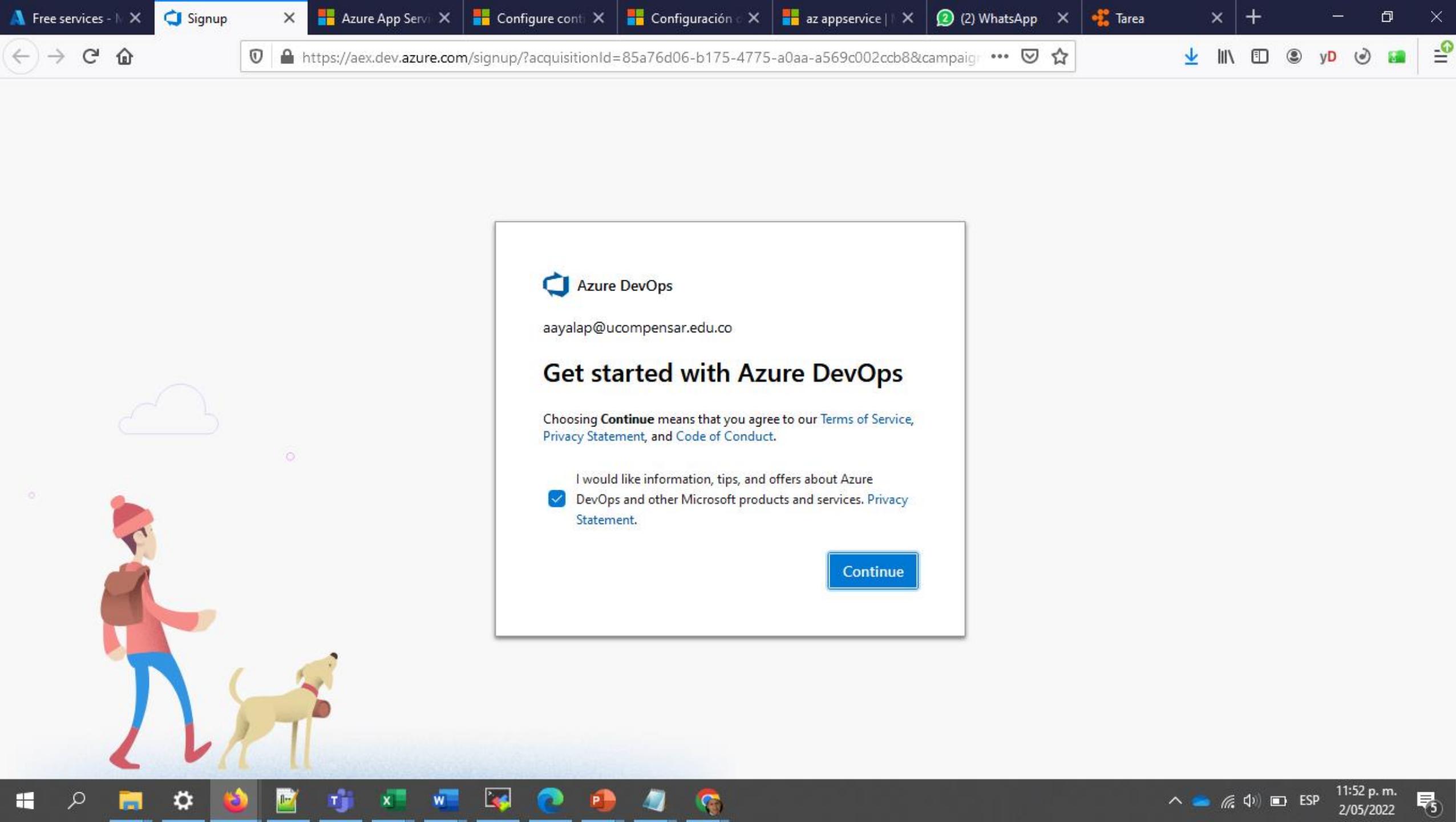
Get everything you need to build and deploy your app  
on any platform.

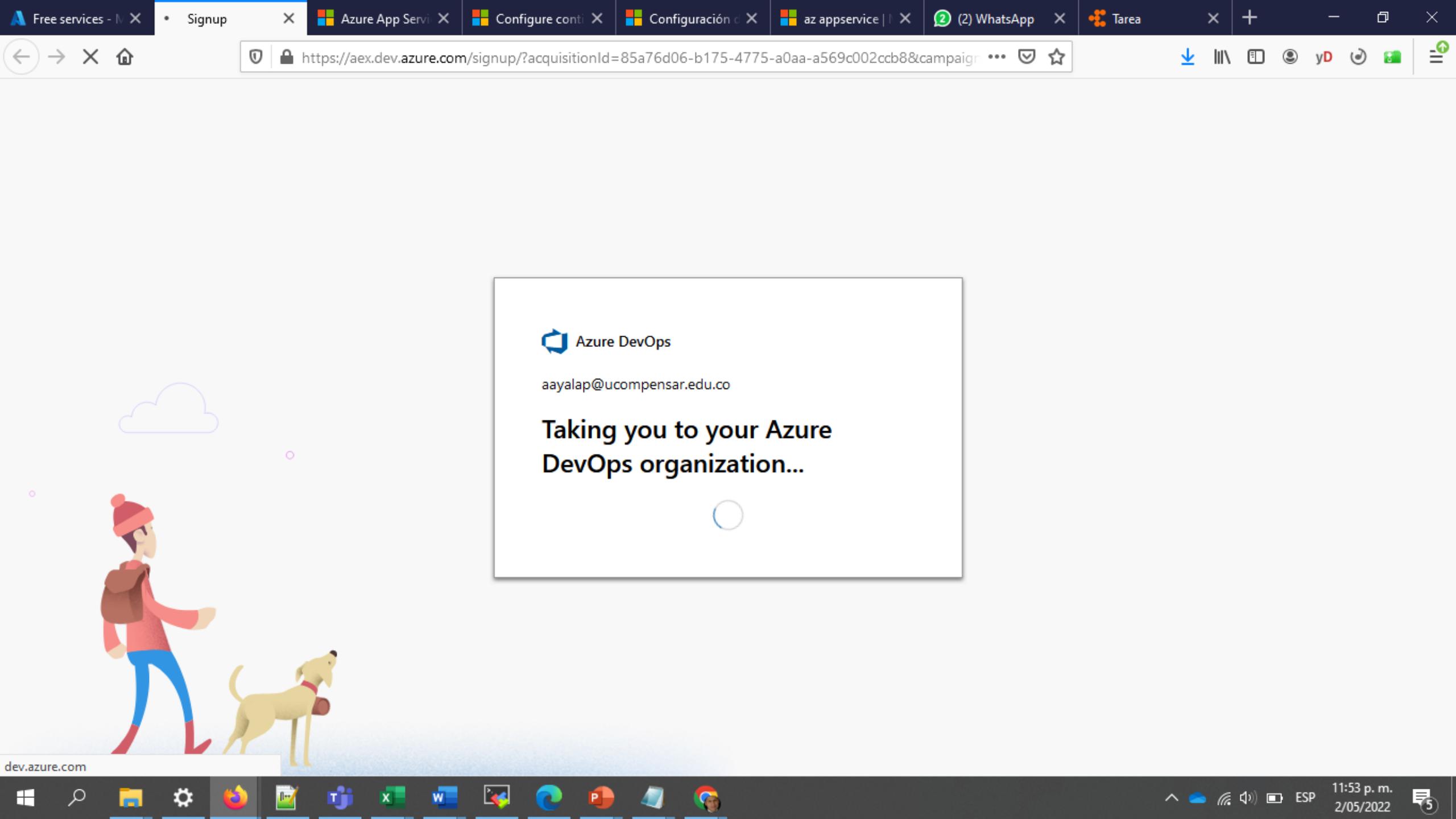
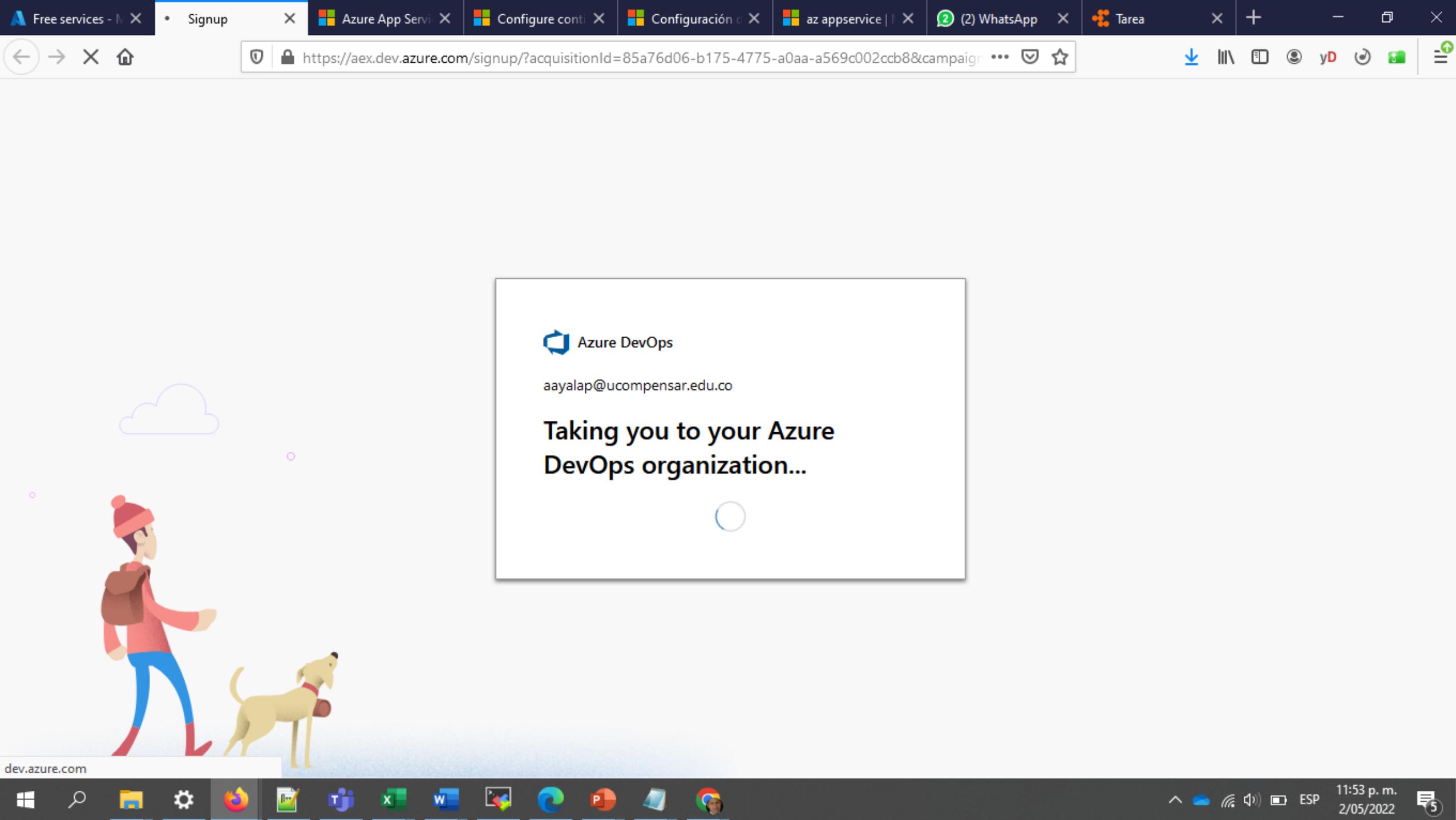


## Get started with Azure DevOps

Plan better, code together, ship faster with Azure DevOps

[Create new organization](#)





## Create a project to get started

Project name :

For more information about the study, please contact the study team at 1-800-258-4238 or visit [www.cancer.gov](http://www.cancer.gov).

## Visibility



Public ①

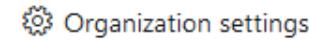
Anyone on the internet can view the project. Certain features like TFVC are not supported.

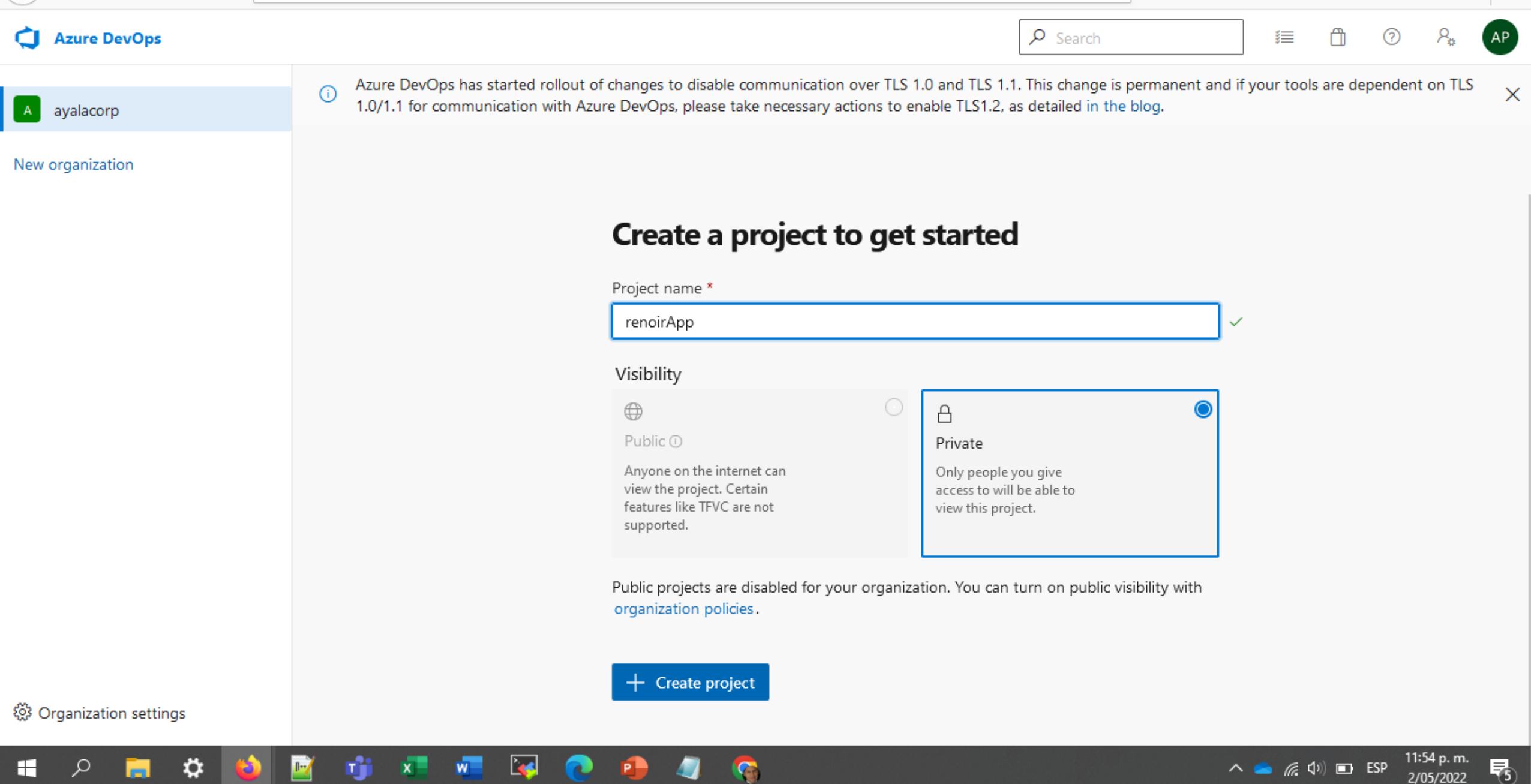


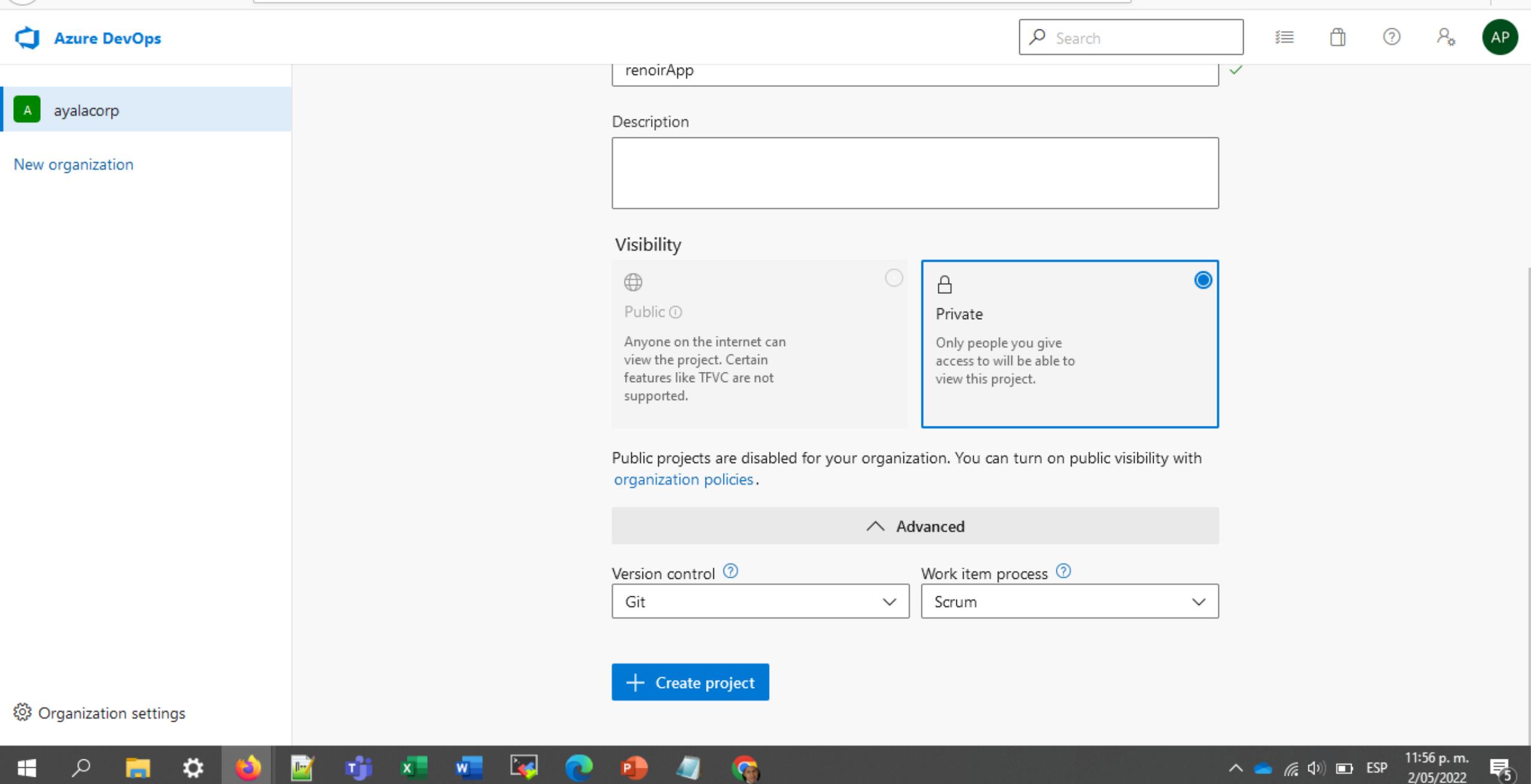
Private

Only people you give access to will be able to view this project.

Public projects are disabled for your organization. You can turn on public visibility with [organization policies](#).









Version

Azure DevOps Services

 Filter by title

nyic yiscaiy

## About work items

## Area & iteration paths

## Workflow states & categories

## Linking & traceability

## Link types

## Work track

## Process guidance

## Permissions & access

Configure & customize

Wire Boards & GitHub

## Work items

#### boards & Kanban

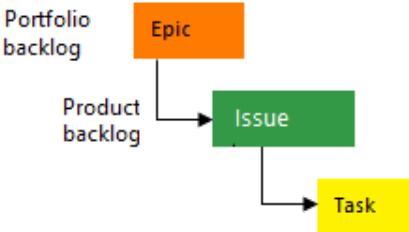
### Backlogs

 Download PDF



Choose **Basic** when your team wants the simplest model that uses Issues, Tasks, and Epics to track work.

Tasks support tracking Remaining Work.

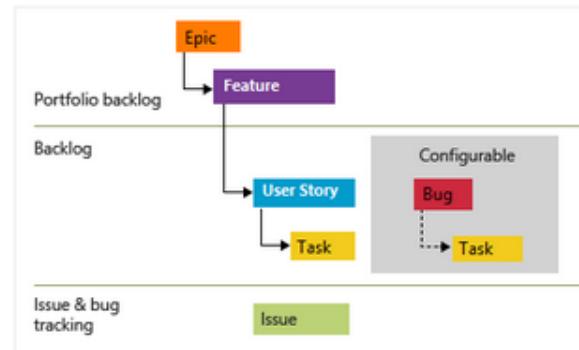


Agile

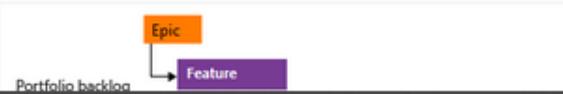
Choose [Agile](#) when your team uses Agile planning methods, including Scrum, and tracks development and test activities separately. This process works great if you want to track user stories and (optionally) bugs on the Kanban board, or track bugs and tasks on the taskboard.

You can learn more about Agile methodologies at the [Agile Alliance](#).

Tasks support tracking Original Estimate, Remaining Work, and Completed Work.



Scrum



Version

Azure DevOps Services

 Filter by title

## **new uses**

## Choose a process

### Area 8/ iteration paths

### Workflow states: 81 categories

[View Details](#)

## Link types

## Work tracking limits

## > Process guidance

## > Permissions & access

## Configure & customize

> Azure Boards & GitHub

## > Work items

• Report 3: Model

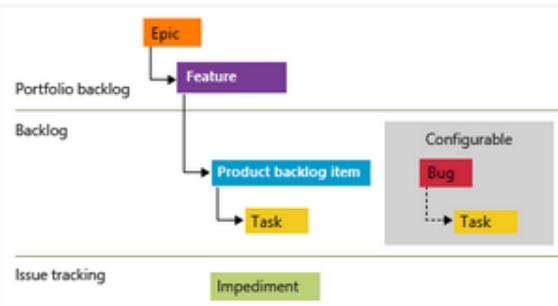
1000

## > Backlogs

 Download PDF

Scrum

Choose Scrum when your team practices Scrum. This process works great if you want to track product backlog items (PBIs) and bugs on the Kanban board, or break down PBIs and bugs into tasks on the taskboard.

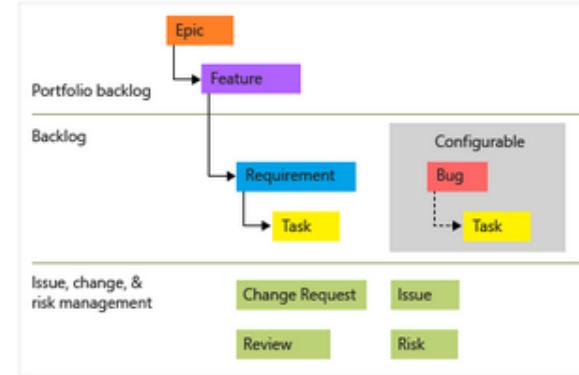


This process supports the Scrum methodology as defined by the Scrum organization.

Tasks support tracking remaining work only.

CMM

Choose CMMI when your team follows more formal project methods that require a framework for process improvement and an auditable record of decisions. With this process, you can track requirements, change requests, risks, and reviews.



This process supports formal change management activities. Tasks support tracking Original Estimate, Remaining Work,



## Work items

## Recently updated

[+ New Work Item](#) 

→ Open in Queries

 Column Options

## ↑ Import Work Items

 Recycle Bin



Types ▾

Assigned to ✓

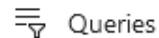
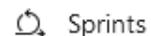
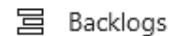
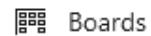
States ▾

Area ▾

Tags ▼

X

## Boards



## Find recently updated items

[View items that have been recently updated.](#)

[Learn more about work items](#)

A Free service New Epi X Choose a pr Azure App S Configure c Configuraci Azure DevO Setting up a Deploying a (2) WhatsApp Tarea + - ×

ayalacorp / renoirApp / Boards / Work items

https://dev.azure.com/ayalacorp/renoirApp/\_workitems/create/Epic

... 🌐 ⚡

Search

R Work Items | Back to Work Items

NEW EPIC ! Field 'Title' cannot be empty.

Enter title

Unassigned 0 comments Add tag Save

State: New Area: renoirApp

Reason: New epic Iteration: renoirApp

Description

Click to add Description

Acceptance Criteria

Click to add Acceptance Criteria

Discussion

Add a comment. Use # to link a work item, ! to link a pull request, or @ to mention a person.

Status

Start Date

Target Date

Deployment

To track releases associated with this work item, go to [Releases](#) and turn on deployment status reporting for Boards in your pipeline's Options menu. [Learn more about deployment status reporting](#)

Details

Priority: 2

Effort

Business Value

Time Criticality

Development

+ Add link

Related Work

+ Add link

Add an existing work item as a parent

AP

Windows Taskbar: Search, File Explorer, Settings, Firefox, Microsoft Teams, Excel, Word, Powerpoint, Edge, OneDrive, Google Chrome

System tray: Network, Battery, Volume, ESP, 12:25 a.m., 3/05/2022, Notifications (5)

A Free service Epic 1: Choose a Azure App Configure Configura Agile Plan Configuring Setting up Deploying (2) What's Tarea + - ×

ayalacorp / renoirApp / Boards / Work items Search AP

R Work Items | Back to Work Items

+ EPIC1

1 MVP

Unassigned 0 comments Add tag Save Follow ...

State: New Area: renoirApp Updated by:

Reason: New epic Iteration: renoirApp

Description Click to add Description Status Start Date

Acceptance Criteria Click to add Acceptance Criteria Target Date

Discussion Add a comment. Use # to link a work item, ! to link a pull request, or @ to mention a person. Details Priority: 2

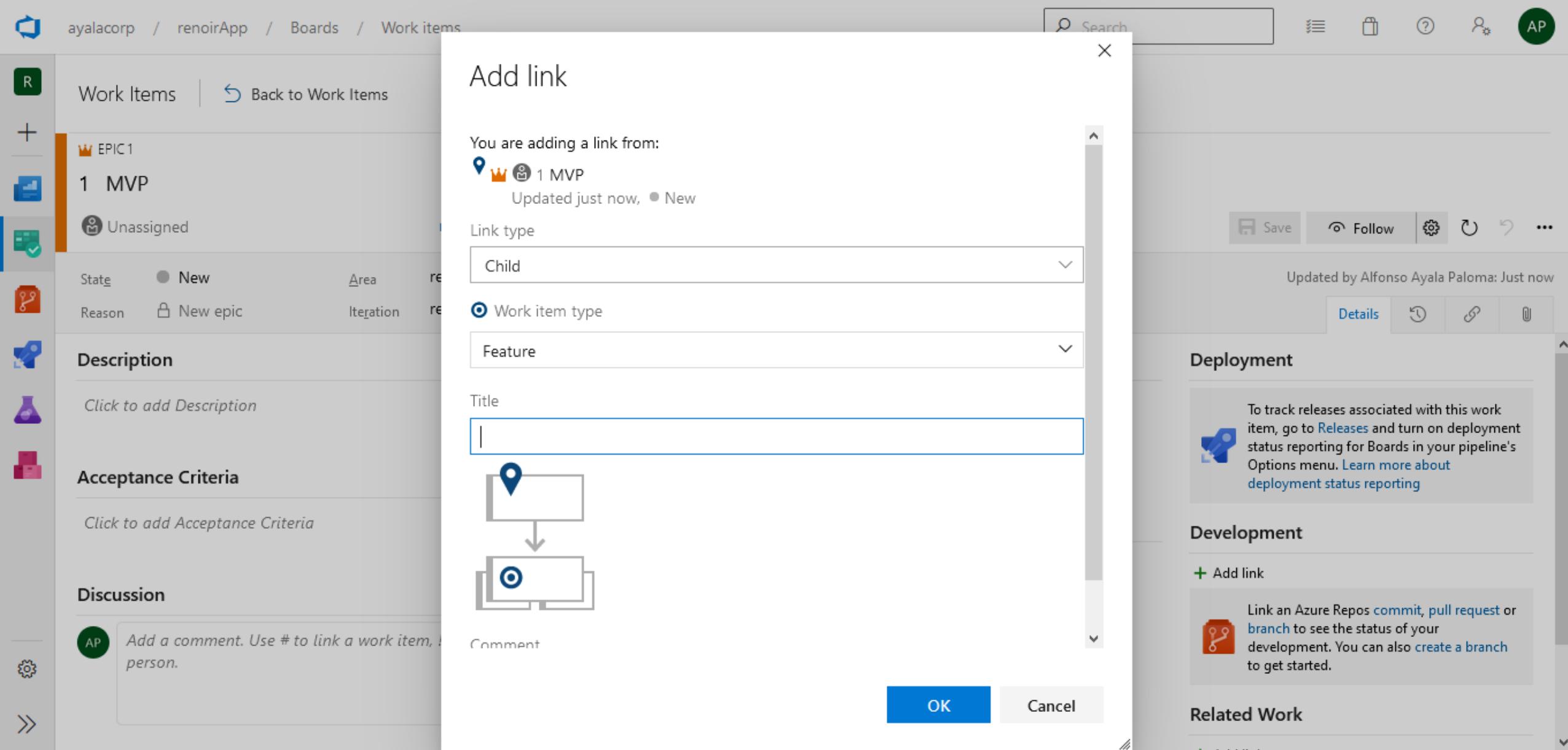
Business Value

Time Criticality

Deployment To track releases a item, go to Release status reporting f Options menu. Learn more about deployment status

New linked work item Change type... Move to team project Create copy of work item... Email work item Delete Templates New branch... Request feedback Customize Link an Azure Rep branch to see the development. You can also create a branch to get started. Keyboard shortcuts

AP 12:27 a.m. 3/05/2022 5



A Free service Epic 1: Choose a Azure App Configure Configura Agile Plan Configuring Setting up Deploying (2) What's Tarea + - ×

https://dev.azure.com/ayalacorp/renoirApp/\_workitems/edit/1

ayalacorp / renoirApp / Boards / Work items Search

R Work Items | Back to Work Items

+ EPIC1

1 MVP

Unassigned 0 comments Add tag Save Follow

State: New Area: renoirApp Updated by Alfonso Ayala Paloma: Just now

Reason: New epic Iteration: renoirApp Details (1)

Links

Add link Link ↑ State Latest Update Comment

Child

2 Feature 01 ... New Updated just now

Windows Taskbar: Search, File Explorer, Settings, Firefox, Microsoft Teams, Excel, Word, Powerpoint, Edge, Google Chrome, Microsoft Edge, Microsoft Store, Task View, Taskbar icons, Network, Battery, Volume, ESP, 12:28 a.m., 3/05/2022, Notifications

A Free service Epic 1: Choose a Azure App Configure Configura Agile Plan Configurin Setting up Deploying (2) What's Tarea + - ×

ayalacorp / renoirApp / Boards / Work items

Add link

You are adding a link from:

2 Feature 01 Updated just now, New

Link type: Child

Work item type: Product Backlog Item

Title: PBI 01

Comment:

OK Cancel

Search

Save & Close Follow Details Deployment Development

Updated by Alfonso Ayala Paloma: Just now

To track releases associated with this work item, go to Releases and turn on deployment status reporting for Boards in your pipeline's Options menu. Learn more about deployment status reporting

Add link

Link an Azure Repos commit, pull request or branch to see the status of your development. You can also create a branch to get started.

12:28 a.m. 3/05/2022 5





 Search



?

AP

renoirApp Team

No iteration dates  
Set dates

!

Taskboard Backlog Capacity Analytics

 New Work Item  Column Options ..

Sprint 1 ▾

Order	Title	State	Assigned To	Rema...
1	PBI 01	... ● New		

## Planning

Drag and drop work items to include them in a sprint.

renoirApp Team Backlog

Sprint 1

Planned Effort: -

1

Sprint 2

No work scheduled yet

Sprint 3

No work scheduled yet

Sprint 4

renoirApp Team

No iteration dates  
[Set dates](#)

Taskboard Backlog Capacity Analytics

## Column Option

Q Sprint 1 ✓

Person: All ▾

1

 Collapse all

To Do

In Progress

Done

3 PBI 01

3 PBI 01

 Unassigned

State ● New

## Task 01

1

8

+



renoirApp Team

No iteration dates  
[Set dates](#)

三

Taskboard Backlog Capacity Analytics

New Work Item  Column Options

Sprint 1 ▾ Person: All ▾

[Collapse all](#)

To Do 161

## In Progress

Done

3 PBI 01

BI 01

Unassigned

16 h

## State

● New

 4 Task 0

 Unassi

## State

16

5 Task 0

 Unacademy

State

10 of 10

Task 0

 Unassi

1

+

1

 Search

AP

**renoirApp** is empty. Add some code!

## Clone to your computer

HTTPS

SSH

[https://ayalacorp@dev.azure.com/ayalacorp/renoirApp/\\_git/renoirApp](https://ayalacorp@dev.azure.com/ayalacorp/renoirApp/_git/renoirApp)



OR

 Clone in VS Code



## Generate Git Credentials

① Having problems authenticating in Git? Be sure to get the latest version [Git for Windows](#) or our plugins for [IntelliJ](#), [Eclipse](#), [Android Studio](#) or [Windows command line](#).

## Push an existing repository from command line

HTTPS

SSH

```
git remote add origin https://ayalacorp@dev.azure.com/ayalacorp/renoirApp/_git/renoirApp  
git push -u origin --all
```



## Import a repository

## Import

## SPRINT REVIEW

Determinar el problema

Conocer conceptos Cloud

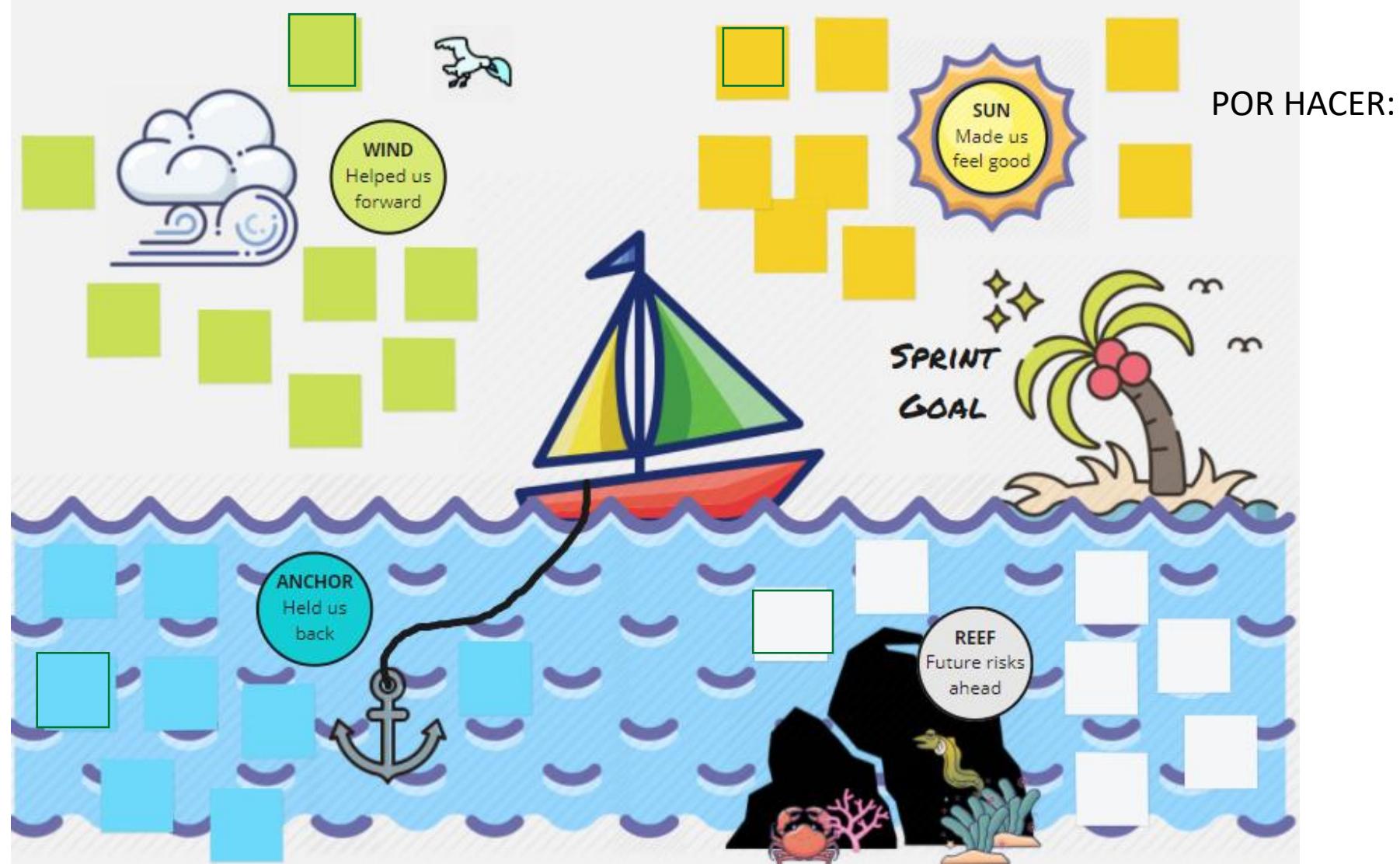
Conocer conceptos Scrum

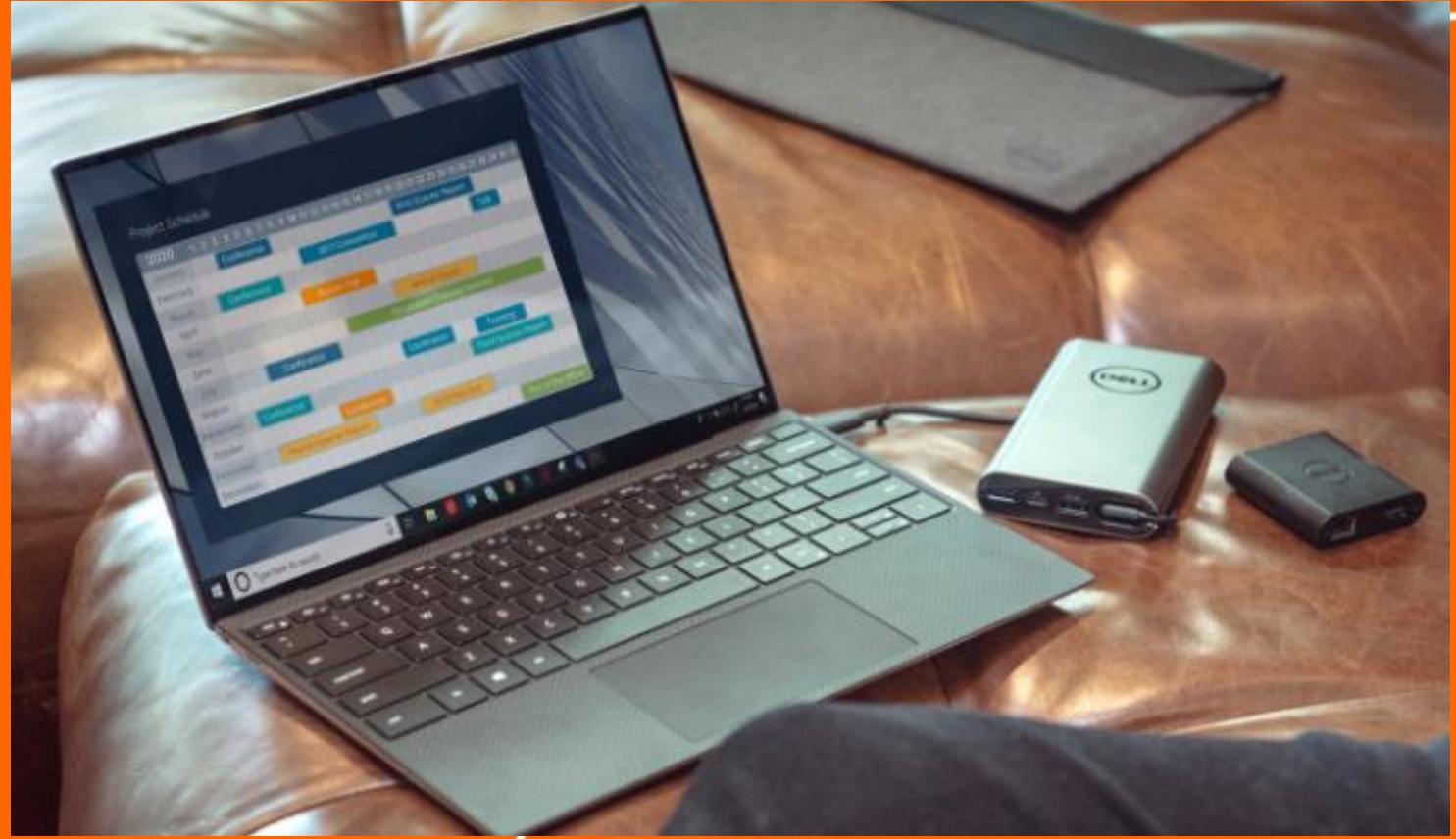
Conocer conceptos DevOps

Conocer/usr Azure DevOps



## SPRINT RETROSPECTIVE





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Pbx: 555 82 10  
[ucompensar.edu.co](http://ucompensar.edu.co)  
Bogotá, D.C. - Colombia