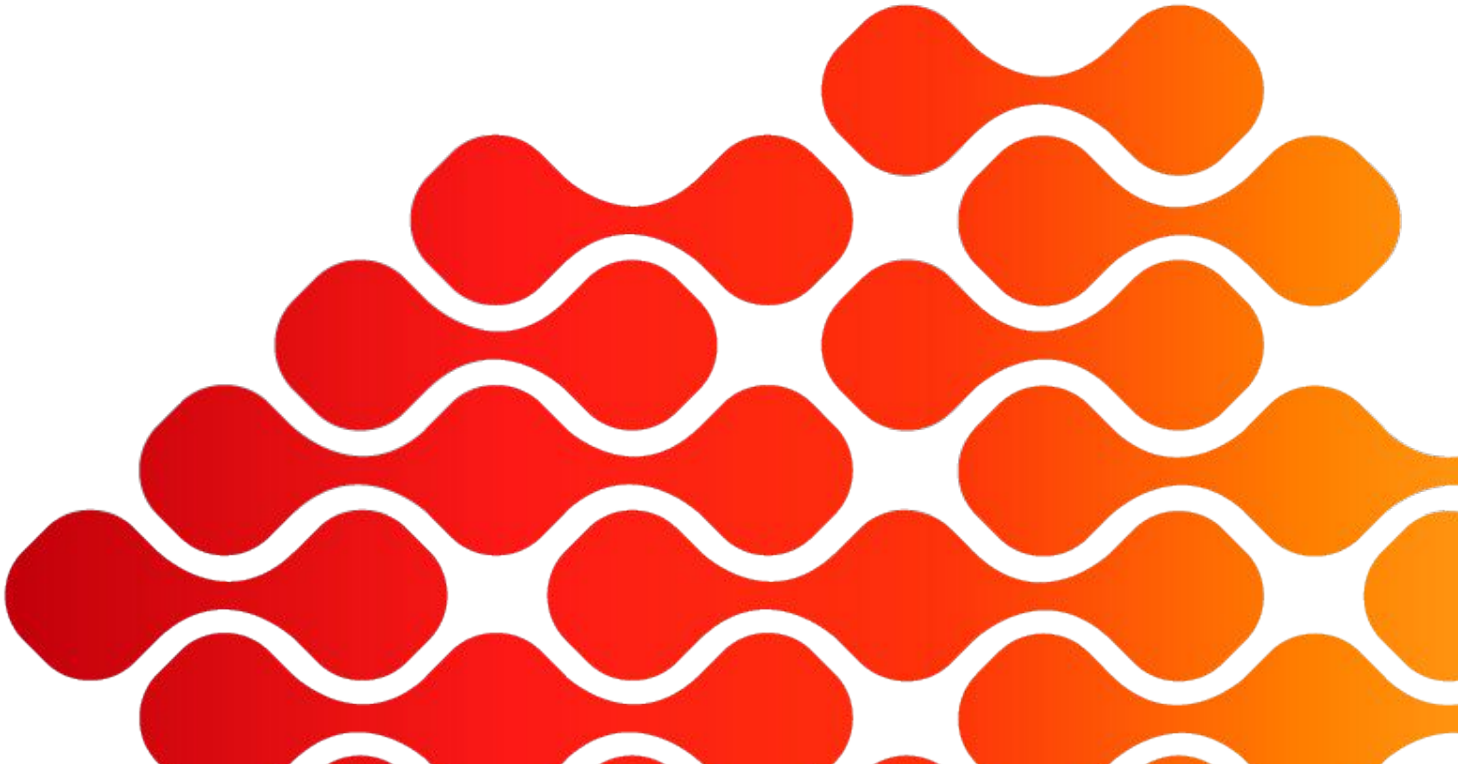
Bases de données NoSQL



DATA

is

the next Intel

inside

Tim O'Reilly

Les types de contenus

de bases de données NoSQL

Multi-modèle

Permet d'avoir pour un même dépôt de données plusieurs modélisations superposées ou combinées, incluant possiblement un modèle relationnel.

Clé-Valeur
associatives

Ces bases sont des hash, comme localstorage

Document
hiérarchiques

Certaines bases de données s'organisent de manière hiérarchique et produisent du xml ou json

Graphes
réseau

Colonne
verticales

Ces bases stockent les données par colonne plutôt que par rangée, on les dit à colonne large,

Les types de contenus

de bases de données NoSQL

Multi-modèle

Permet d'avoir pour un même dépôt de données plusieurs modélisations superposées ou combinées, incluant possiblement un modèle relationnel.

Clé-Valeur
associatives

Riak
Voldemort
Redis

Document
hiérarchiques

MongoDB
CouchDB (Apache)

Graphes
réseau

Neo4J
HyperGraphDB

Colonne
verticales

Cassandra (Apache)
HBase

BDD NoSQL

- Clé-Valeur: Toute base de données associative, souvent locale et destinée à faire de la persistence décentralisée ou temporaire
- Colonne: Structure comme relationnelle mais language de requête différent
- Graphe: Maintient les liens entre les données plutôt que d'avoir à faire des tables de relations pour les many-to-many ou des jointures
- Document: Résoud le point faible des bases de données associative qui était d'avoir les documents à l'extérieur de la base de données alors qu'ils sont une partie intégrante du système.
- Multi-modèle: Permet de de maintenir un double-modèle des mêmes données (parallèle'View')

BDD NoSQL

- Clé-valeur: Aerospike, ArangoDB, **Couchbase**, Dynamo, FairCom c-treeACE, FoundationDB, HyperDex, InfinityDB, MemcacheDB, MUMPS, Oracle NoSQL Database, OrientDB, **Redis**, Riak, **Berkeley DB**, SDBM/Flat File dbm
- Colonne: Accumulo, **Cassandra**, Druid, **HBase**, Vertica
- Graphe: **AllegroGraph**, ArangoDB, InfiniteGraph, Apache Giraph, MarkLogic, Neo4J, OrientDB, Virtuoso
- Document: **Apache CouchDB**, ArangoDB, Clusterpoint, Couchbase, Cosmos DB, HyperDex, IBM Domino, MarkLogic, **MongoDB**, OrientDB, Qizx, RethinkDB
- Multi-modèle: ArangoDB, **Couchbase**, FoundationDB, InfinityDB, MarkLogic, OrientDB

BDD NoSQL

Avantages et désavangages des différentes bases NoSQL selon (Ben Scofield)

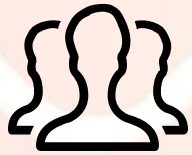
Data model	Performance	Scalability	Flexibility	Complexity	Functionality
Key–value store	high	high	high	none	variable (none)
Column-oriented store	high	high	moderate	low	minimal
Document-oriented store	high	variable (high)	high	low	variable (low)
Graph database	variable	variable	high	high	graph theory
Relational database	variable	variable	low	moderate	relational algebra

Requêtes pour graphes

Name	Language(s)	Notes
AllegroGraph	SPARQL	RDF triple store
ArangoDB	AQL, JavaScript, GraphQL	Multi-model DBMS Document, Graph database and Key-value store
DEX/Sparksee	C++, Java, .NET, Python	Graph database
FlockDB	Scala	Graph database
IBM DB2	SPARQL	RDF triple store added in DB2 10
InfiniteGraph	Java	Graph database
MarkLogic	Java, JavaScript, SPARQL, XQuery	Multi-model document database and RDF triple store
Neo4j	Cypher	Graph database
OpenLink Virtuoso	C++, C#, Java, SPARQL	Middleware and database engine hybrid
Oracle	SPARQL 1.1	RDF triple store added in 11g
OrientDB	Java, SQL	Multi-model document and graph database
OWLIM	Java, SPARQL 1.1	RDF triple store
Sqrrl Enterprise	Java	Graph database

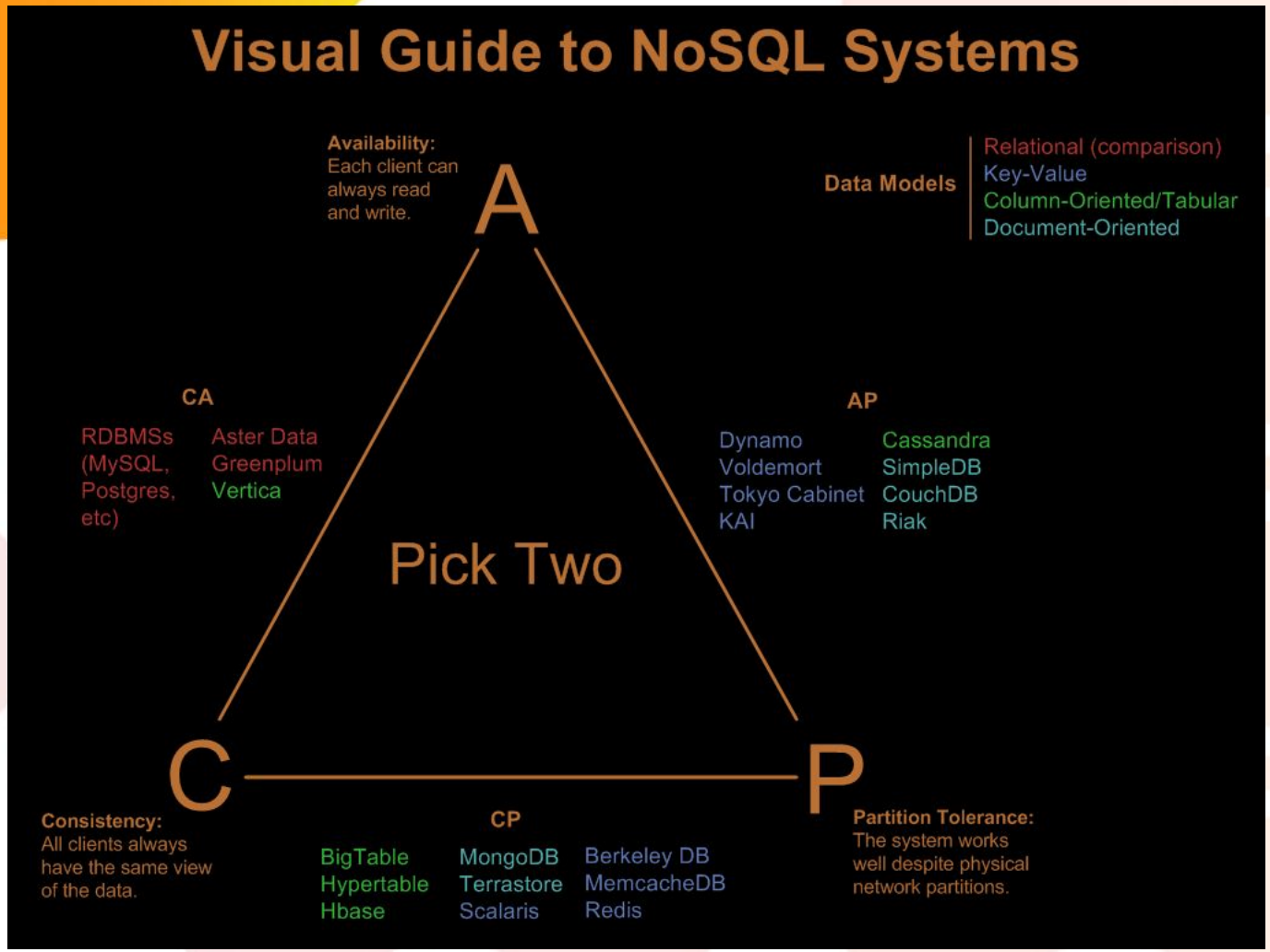
Les propriétés des bases noSQL

Les différentes bases de données NoSQL ne fonctionnent pas de la même façon **cependant elles essaient toutes de corriger les mêmes faiblesses des bases de données relationnelles**

ÉCONOMIE	AGILITÉ	ROBUSTESSE	RAPIDITÉ	ÉCHELLE
				
...	...	...	...	...

Visual Guide to NoSQL

selon beany.co.kr



Les grands joueurs

des services de données infonuagiques (et NoSQL)

Selon Gartner

Qui maintient une classification des grands joueurs.

Amazon AWS

https://aws.amazon.com/fr/nosql/
https://aws.amazon.com/fr/dynamodb/

Google Cloud

https://cloud.google.com/storage/
https://cloud.google.com/datastore/
https://cloud.google.com/storage-options/

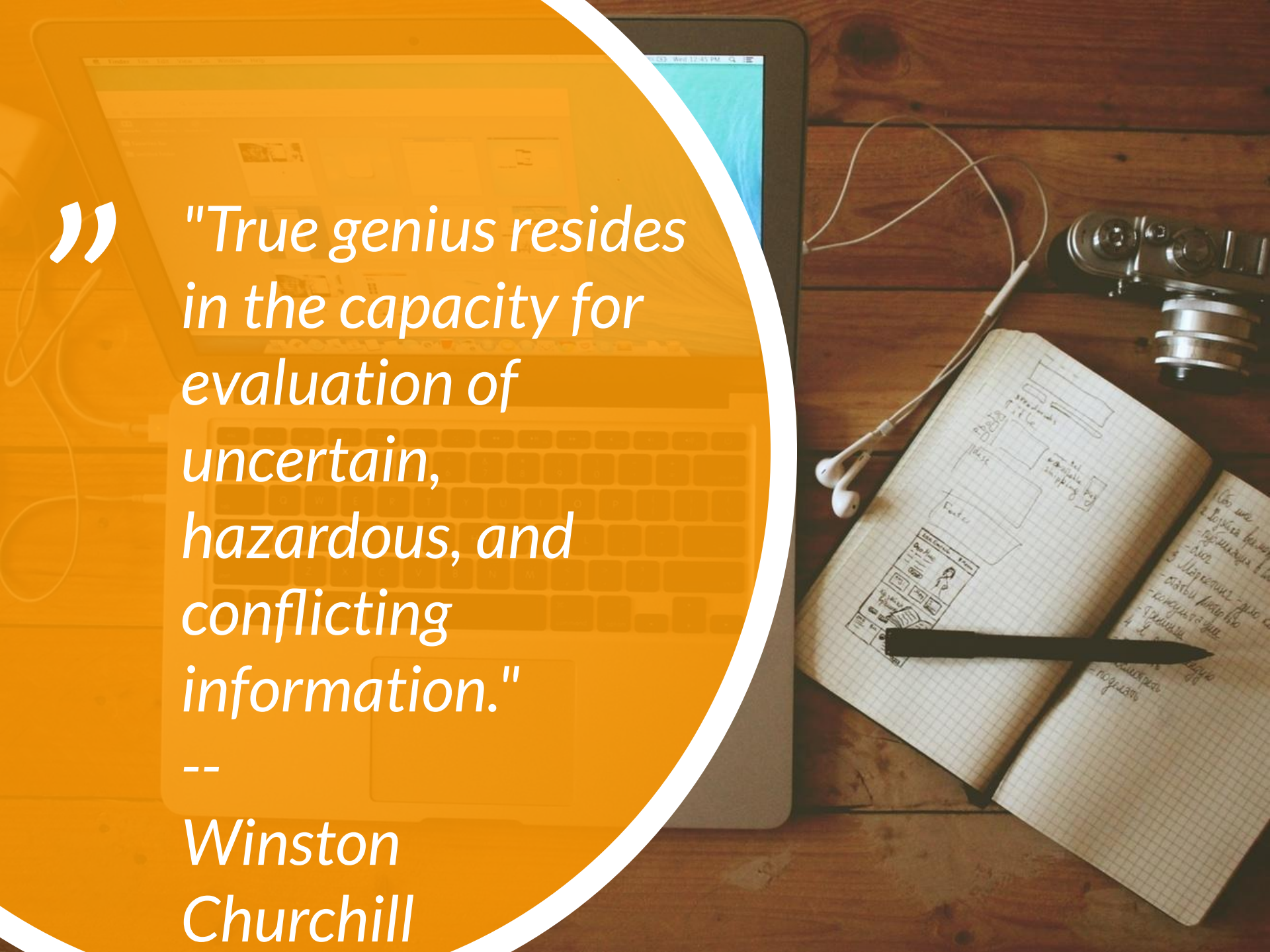
Microsoft Azure

https://azure.microsoft.com/en-ca/services/cosmos-db/
https://docs.microsoft.com/en-us/azure/architecture/aws-professional/services

Gartner's Magic Quadrant

Cloud Infrastructure as a Service, Worldwide June 2017




"
"True genius resides in the capacity for evaluation of uncertain, hazardous, and conflicting information."
--
Winston Churchill



Merci!

Des questions?

Vous pouvez me trouver à nadineducegep@gmail.com

A COMPLEX IDEA CAN BE CONVEYED WITH JUST A SINGLE STILL IMAGE, NAMELY MAKING IT POSSIBLE TO ABSORB LARGE AMOUNTS OF DATA QUICKLY.



Sed ut perspiciatis, unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam eaque ipsa, quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt, explicabo. Nemo enim ipsam voluptatem, quia voluptas sit, aspernatur

Tables to compare data

Sed ut perspiciatis, unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam eaque ipsa, quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt, explicabo. Nemo enim ipsam voluptatem, quia voluptas sit, aspernatur aut odit aut fugit, sed quia consequuntur magni

	COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
ONE	33	23	35	44
TWO	25	61	91	53
THREE	29	85	53	75
FOUR	98	65	57	92

This is a slide title

Sed ut perspiciatis, unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam eaque ipsa, quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt, explicabo.

Sed ut perspiciatis, unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam eaque ipsa, quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt, explicabo.



Instructions for use

Open this document in Google Slides (if you are at poweredtemplate.com use the button below this presentation)
You have to be signed in to your Google account

EDIT IN GOOGLE SLIDES
Go to the ***File*** menu and select ***Make a copy***.
You will get a copy of this document on your Google Drive and will be able to edit, add or delete slides.

EDIT IN POWERPOINT®
Go to the ***File*** menu and select ***Download as Microsoft PowerPoint***. You will get a .pptx file that you can edit in PowerPoint.
Remember to download and install the fonts used in this presentation (you'll find the links to the font files needed in the Credits slide)

More info on how to use this template at https://poweredtemplate.com/frequently-asked-questions.html
This template is free to use under Creative Commons Attribution license. If you use the graphic assets (photos, icons and typographies) provided with this presentation you must keep the Credits slide.



A PICTURE IS WORTH A THOUSAND WORDS

You can also split your content

Open this document in Google Slides (if you are at poweredtemplate.com use the button below this presentation)
You have to be signed in to your Google account

White

Is the color of milk and fresh snow, the color produced by the combination of all the colors of the visible spectrum.

Black

Is the color of coal, ebony, and of outer space. It is the darkest color, the result of the absence of or complete absorption of light.

BIG CONCEPT



Bring the attention of your audience over a key concept using icons or illustrations

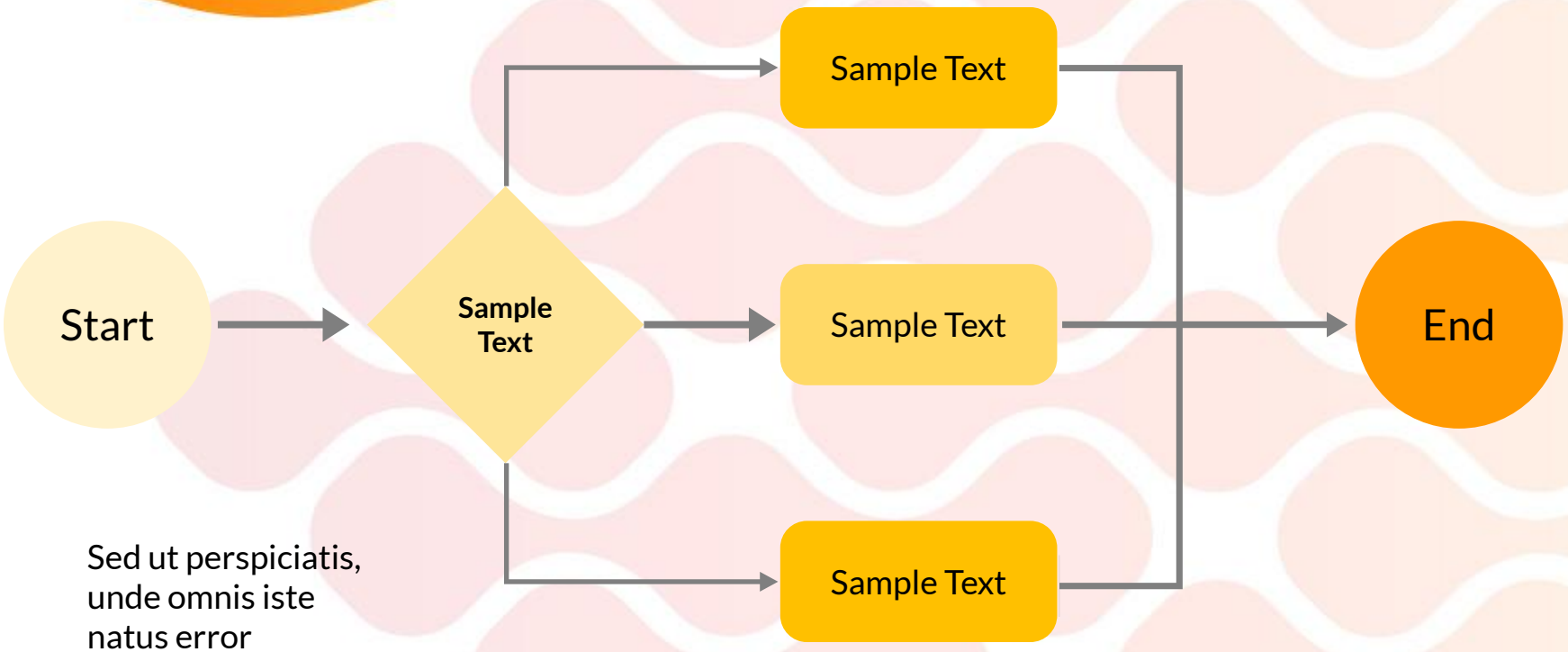
This is a slide title

12.100.000

Whoa! That’s a big number, aren’t you proud?

Flow Charts

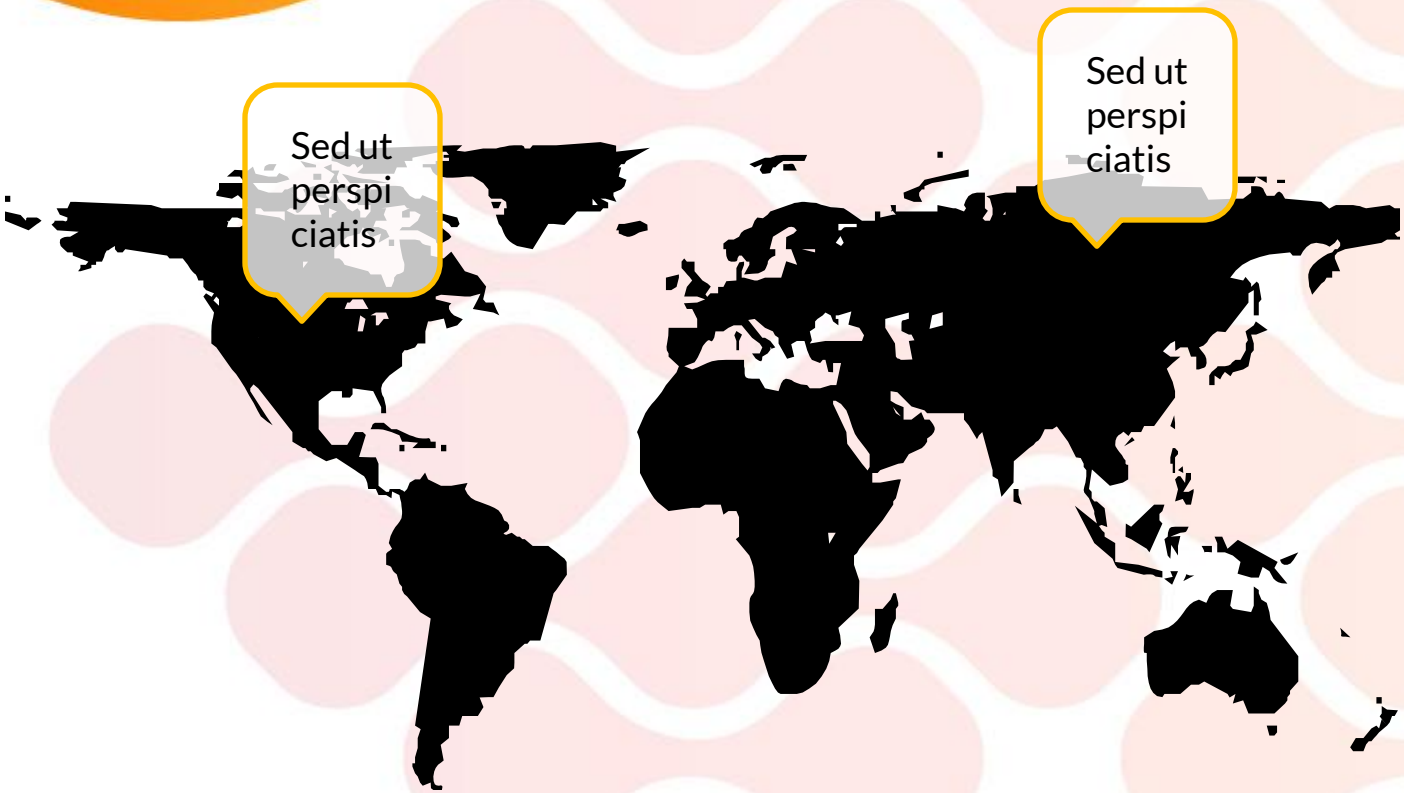
Download more flow charts here
PoweredTemplate.com/ppt-powerpoint-flow-charts/0/



Sed ut perspiciatis,
unde omnis iste
natus error

Maps

Get more maps for your presentations here
PoweredTemplate.com/powerpoint-maps/index.html



uncertain

Winston Churchill

"True genius resides in the capacity for evaluation of uncertain, hazardous, and conflicting information."



Credits

Trademarks

Microsoft® and PowerPoint® are trademarks or registered trademarks of Microsoft Corporation.

© 2015 Google Inc, used with permission. Google and the Google logo are registered trademarks of Google Inc.

Google Drive® is a registered trademark of Google Inc.

Backgrounds

The backgrounds were created by Free Google Slides Templates. or using images from **Pixabay.com**

Images

Photos in this template were downloaded from **pixabay.com**
Attribution is located in each slide notes and the Credits slide.

Shapes & Icons

Vectorial Shapes in this Template were created by Poweredtemplate.com and downloaded from **FreePik.com**

Icons in this Template are part of Google® Material Icons and **FreePik.com**

Fonts

The fonts used in this template are taken from fontsquirrel fonts.
(Lato)
You can download the fonts from the following url:
http://www.fontsquirrel.com



More creative templates and ideas for your presentations here
PoweredTemplate.com
Share your presentations for free with
Presentational.ly