



Data Biases, Blockers & Solutions

Three Challenges

- ⬆ The effect of data on people
- ⬆ TMI
- ⬆ Wrong insights from data



The case study of IAF maintenance factory

People act as you measure them !!

Solutions



Choose carefully your KPIs



Some KPIs



Data-driven culture

People Don't want to see bad news

**Solutions: Start with good news,
meeting, Mis true and Mr story**

Too Much Information



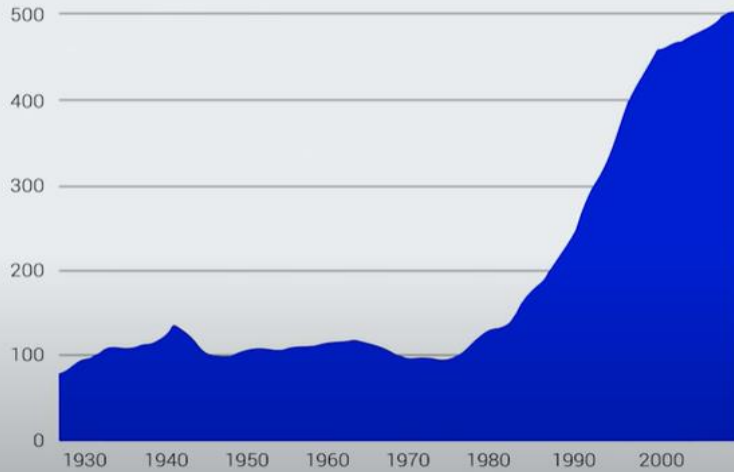
Solution: Make it easy to understand



Solution: Use **color to emphasize**

One message per graph

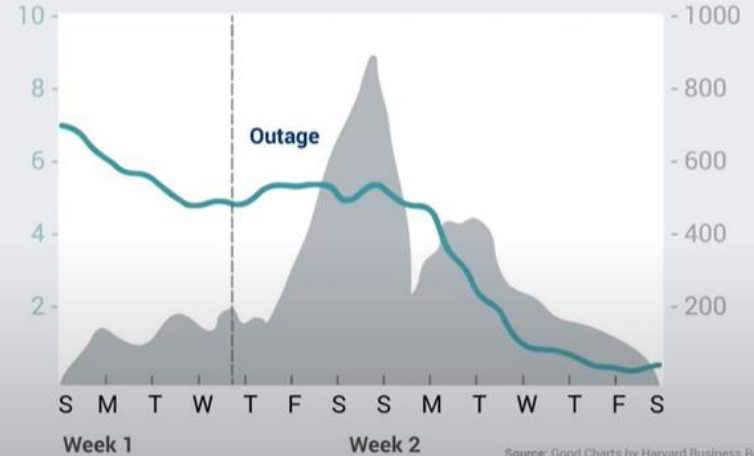
U.S. incarceration rate, 1925-2008
prisoners per 100,000 population



CUSTOMER SERVICE CALLS VS. PERFORMANCE

Customer service
performance rating

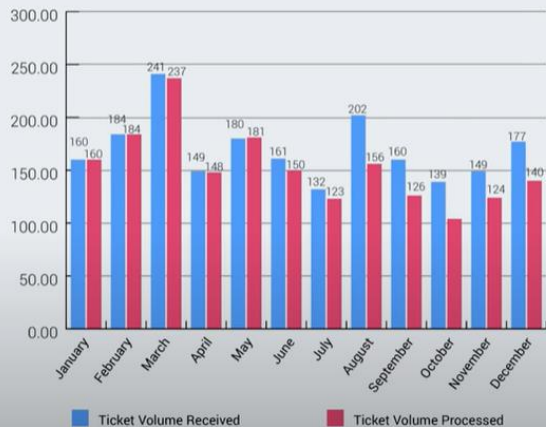
Number of customer
service calls



Make It Easy To Understand

Before

TICKET TREND

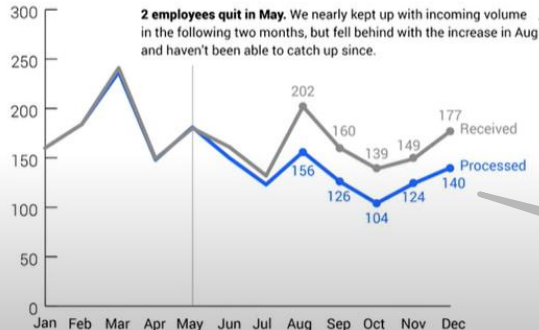


After

Please approve the hire of 2 FTEs

to backfill those who quit in the past year

Ticket volume over time

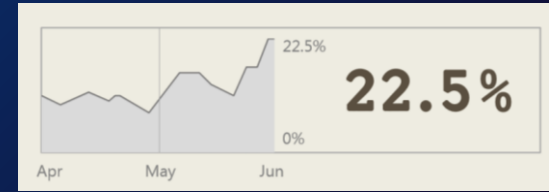
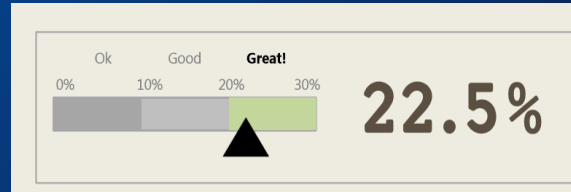
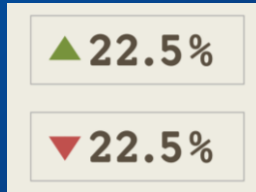


Bottom line

Short explanation

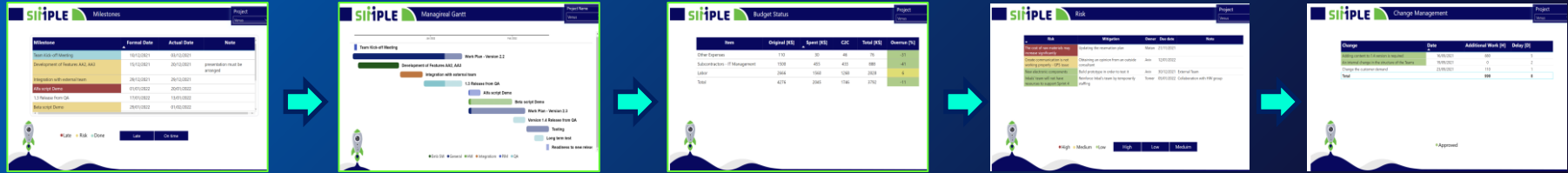
Easy to see the problem

Numbers In Context



Conventions

MSM Template



Red - Yellow - Green



ICON convention



Time convention

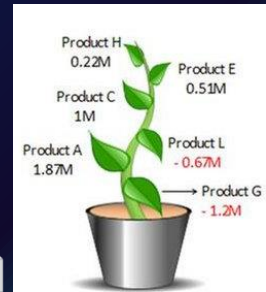
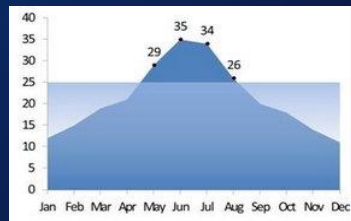
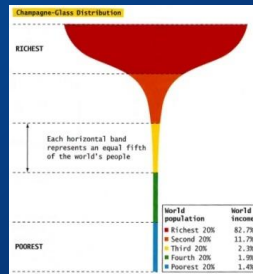
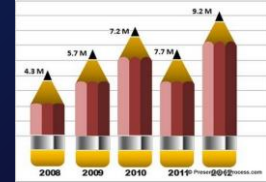
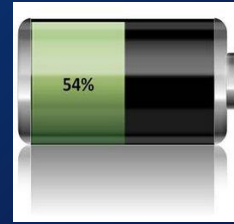
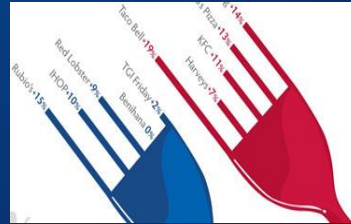
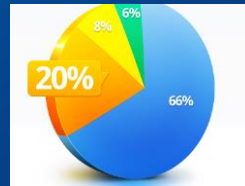
D/W/Q/Y

Always on
X-axis

No digits after the point

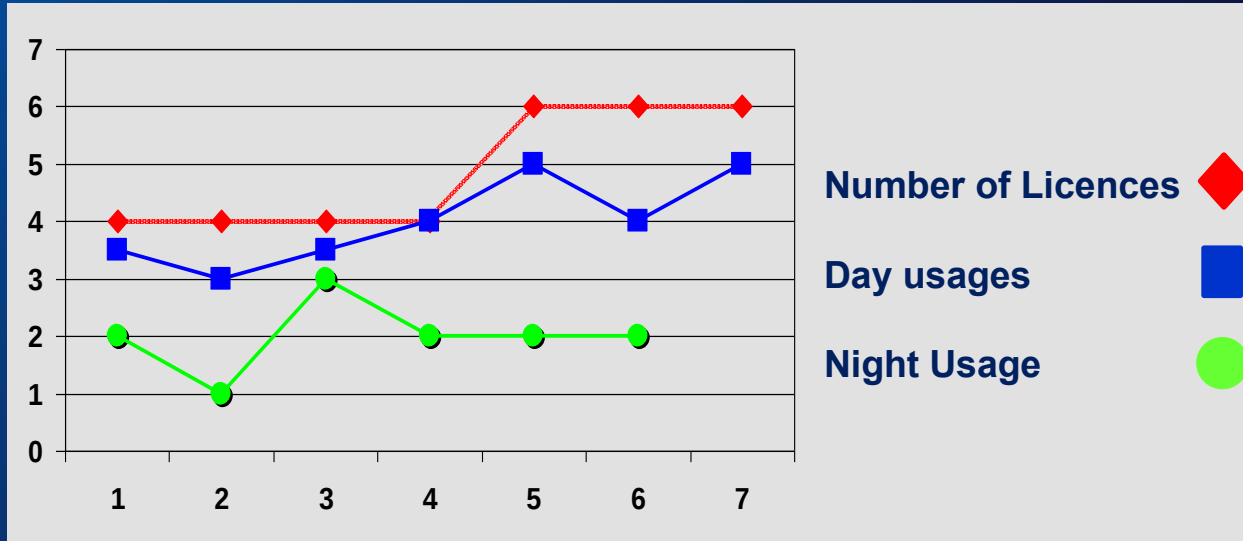
~~1017.32~~

Visual (but easy to understand)



Wrong Insights From Data

Licenses are the bottleneck of the development process. But, you want to save expensive licenses (100K\$ each). You measure for 7 days, the usage of the licenses in day hours (800–2000) and in night hours (2000–800). What is your recommendation due to the results?



Other Common Mistakes

- ✦ Wrong correlation between uncorrelated variables (Ice-cream, Drowning)
- ✦ Noise
- ✦ Forecasting based on history

Summary

::

Data has a high value, but you need to address three challenges:

1. People's reaction to data
2. TMI
3. Wrong insights



APP Sales (K\$)

	USA	EU	China	Total	Cost	Profit	Total Profit
1	150	0	0	150	-300	-150	-150

APP Sales (K\$)

	USA	EU	China	Total	Cost	Profit	Total Profit
1	150	0	0	150	-300	-150	-150
2	250	0	0	250	-300	-50	-200

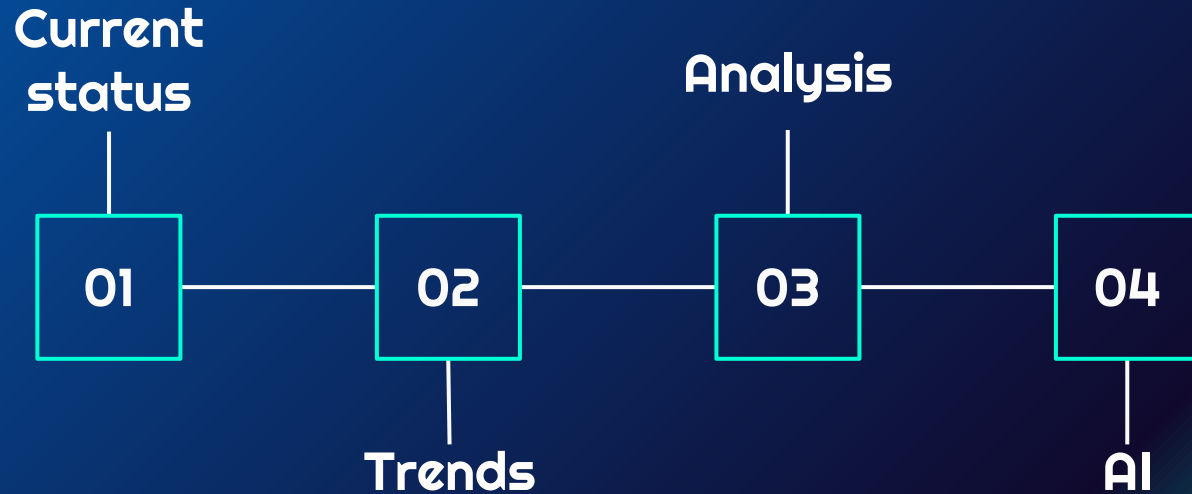
APP Sales (K\$)

	USA	EU	China	Total	Cost	Profit	Total Profit
1	150	0	0	150	-300	-150	-150
2	250	0	0	250	-300	-50	-200
3	500	0	0	500	-300	200	0

APP Sales (K\$)

	USA	EU	China	Total	Cost	Profit	Total Profit
1	150	0	0	150	-300	-150	-150
2	250	0	0	250	-300	-50	-200
3	500	0	0	500	-300	200	0
4	750	50	0	800	-300	500	500

Data Driven Levels



Data Analysis



Manual

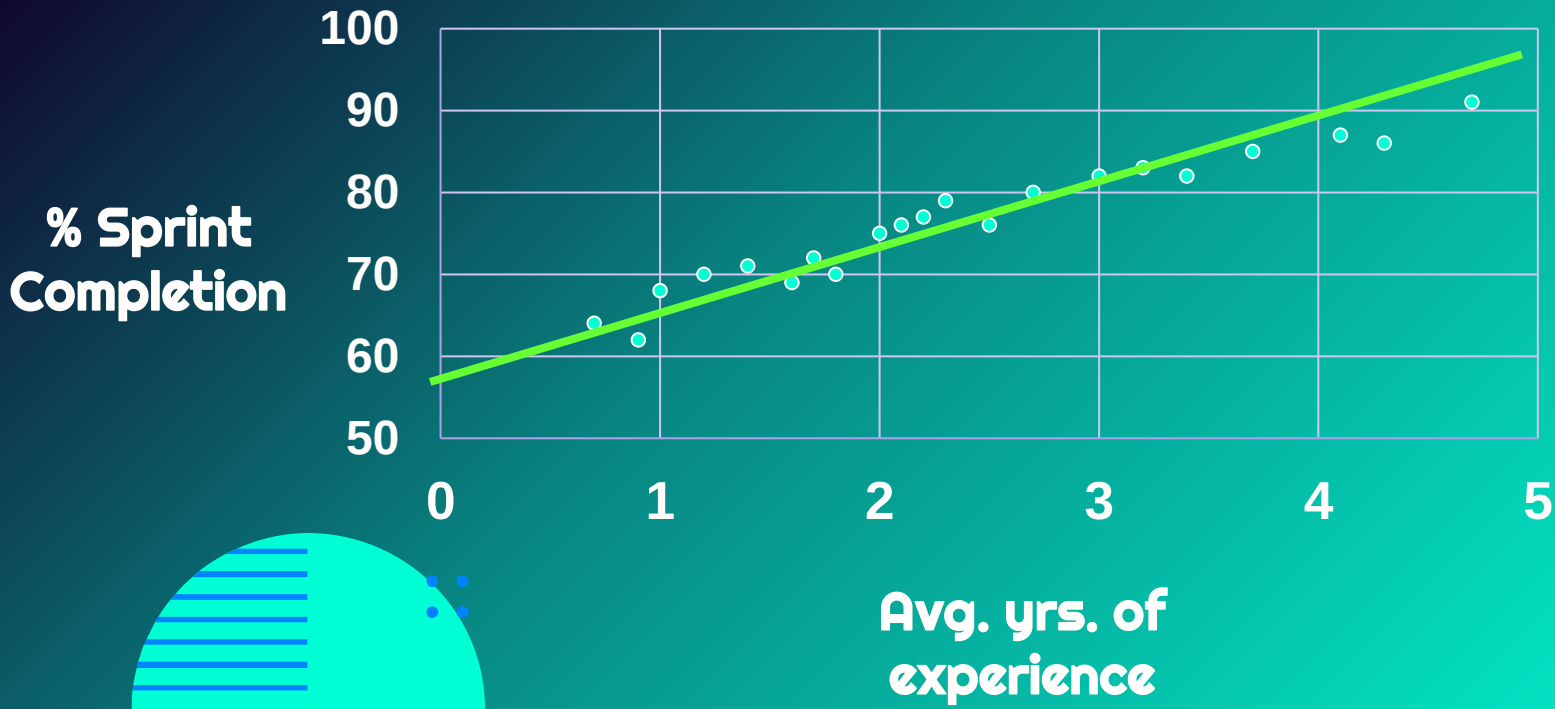


Supervised Data

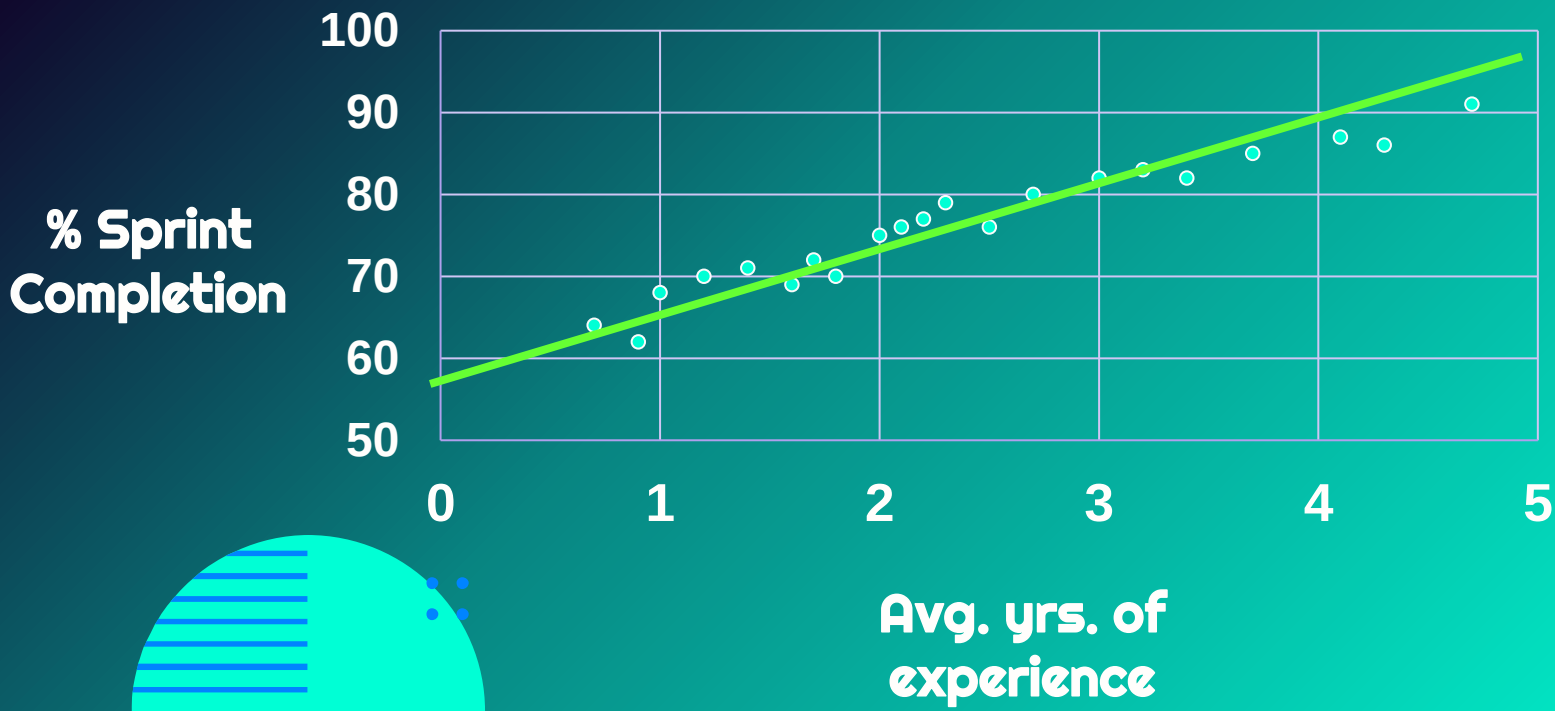


Unsupervised Data

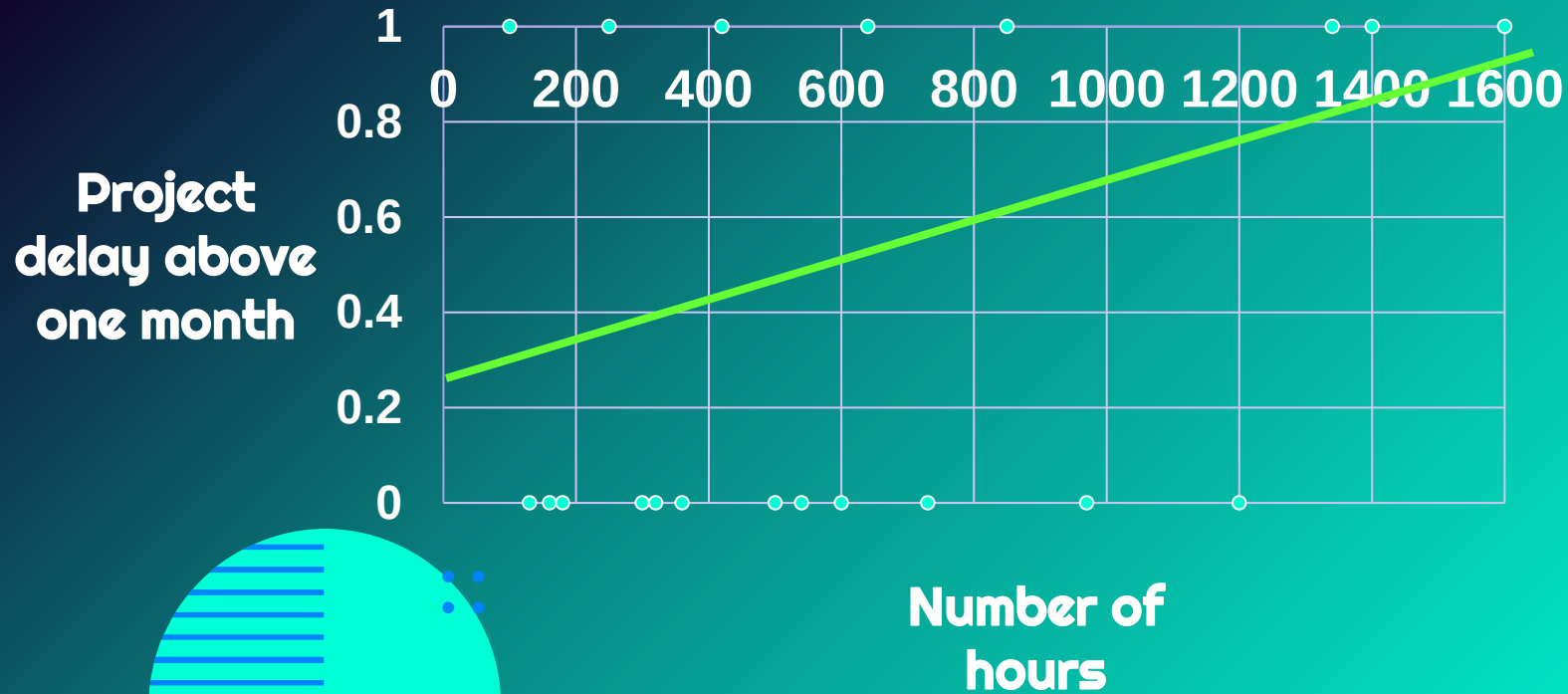
Supervised Data - Regression



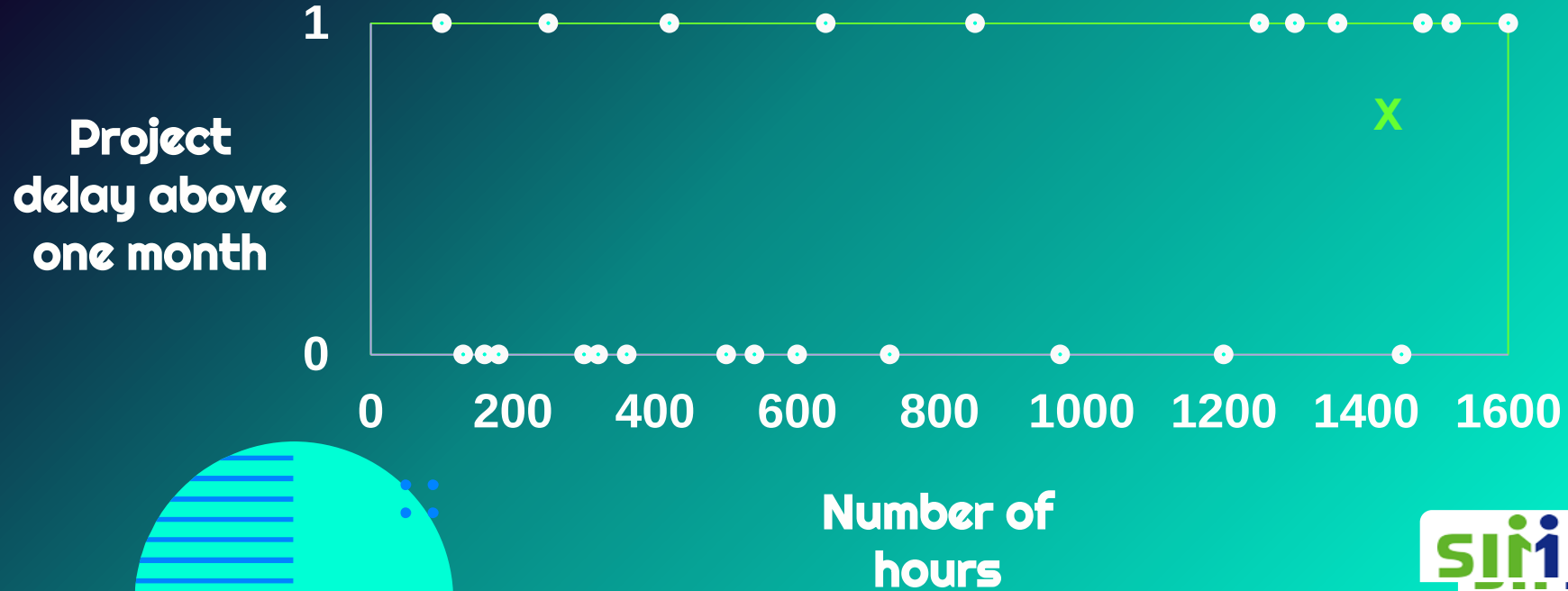
Supervised Data - Regression



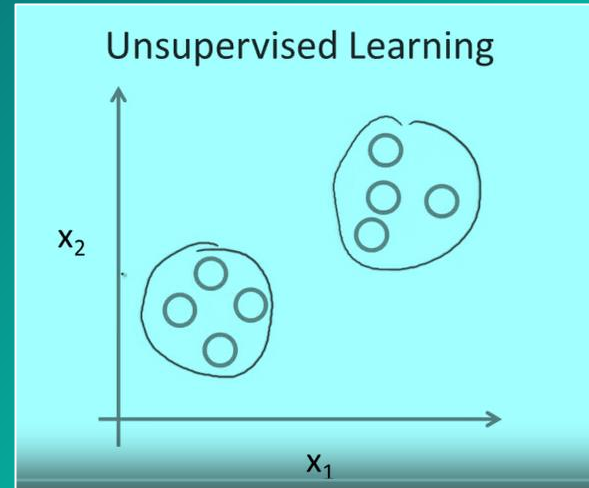
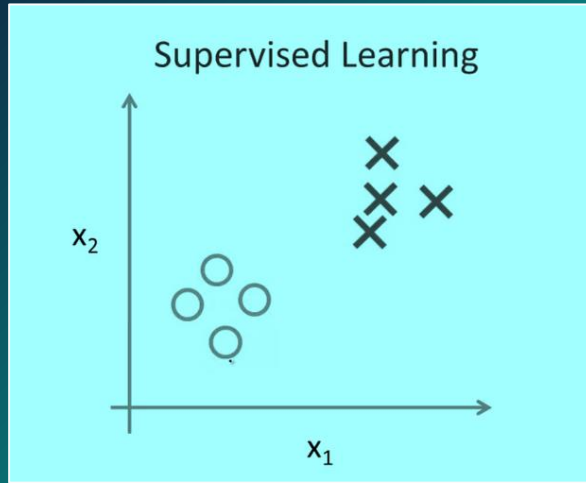
Supervised Data - Classification



Supervised Data - Classification



Unsupervised Data - Clustering

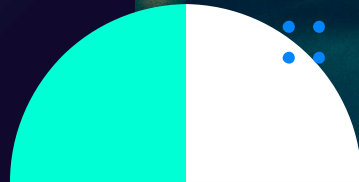


Surveys -

From
qualitative data
to
quantitative data



::



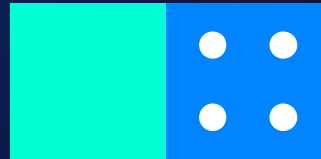
simPLE

AI

**Understanding trends, problems,
bottlenecks ...**



Challenges



People



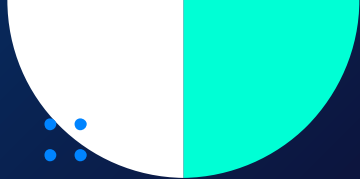
Noise



Understanding



Forecasting



Summary

Data

Data analysis

Challenges

Big impact



"...most of that data is meaningless until someone adds some interpretation..."

Algorithm

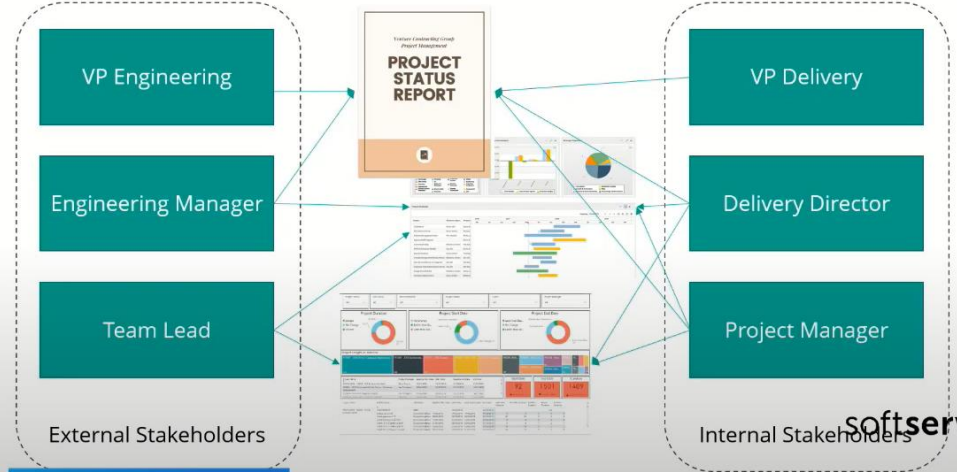
A process or set of rules to be followed for a specific task



1. Mickell Phelps – 1.56
2. Win the competition
3. The faster swimmer

USERS

Each user need different knowledge



COGNITIVE BIASES



IKEA Effect

We place higher value on things we partially created ourselves.



"Don't you love this pot I spent \$20 on? I painted it myself!"

Ben Franklin Effect

We like doing favors; we are more likely to do another favor for someone if we've already done a favor for them than if we had received a favor from that person.



Greg loaned Francis a pen. When Francis asked to borrow \$5, Greg did it readily.

Bystander Effect*

The more other people are around, the less likely we are to help a victim.



In a crowd of students, no one called 911 when someone got hurt in a fight.

Suggestibility

We, especially children, sometimes mistake ideas suggested by a questioner for memories.



"So did you fall off the couch before or after your mom hit you?"

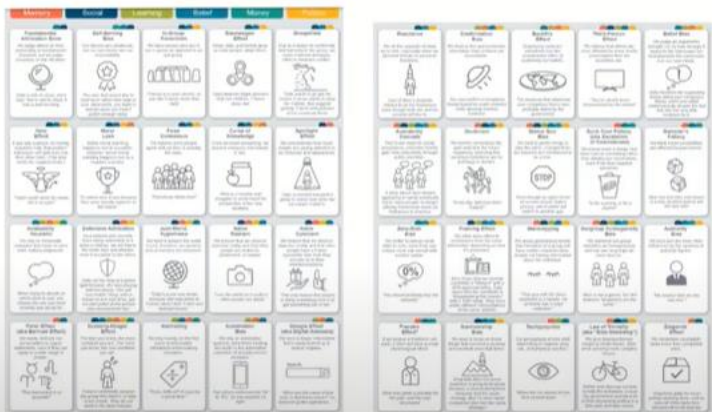
False Memory

We mistake imagination for real memories.



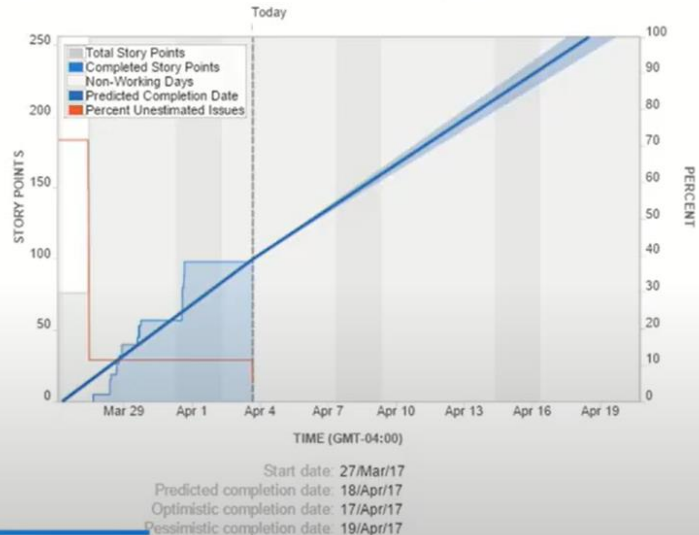
Greg is certain Sally said a really funny joke about pineapples, when that joke actually came from a TV show.

COGNITIVE BIASES



DATA DRIVEN DECISION MAKING

Prediction when the release will end



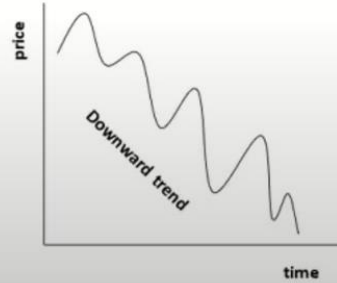
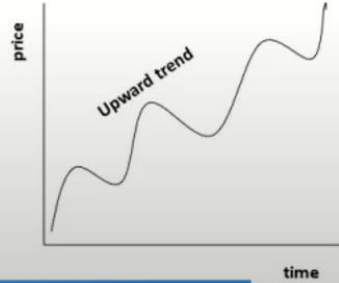
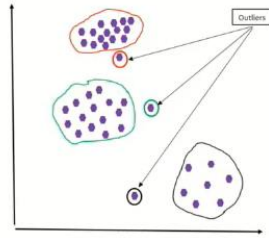
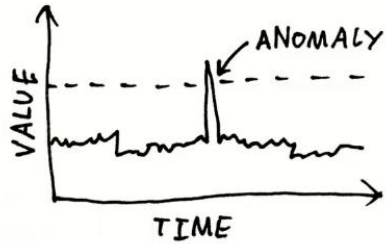
PROJECT vs PORTFOLIO LEVEL REPORT



	Global	Global	Risks	Timing	Budget	HR	Infra
Project 1	🟡	🟡	🟡	🟡	🔴	🔴	🔴
Project 2	🔴	🟡	🟡	🟡	🟡	🟡	🟡
Project 3	🟡	🟡	🟡	🟡	🟢	🔴	🟢
Project 4	🔴	🔴	🔴	🔴	🟡	🟡	🟡
Project 5	🔴	🔴	🔴	🔴	🟢	🟡	🟡
Project 6	🟡	🟡	🟢	🟡	🔴	🟡	🟡

Use labels for jira tickets – technology,

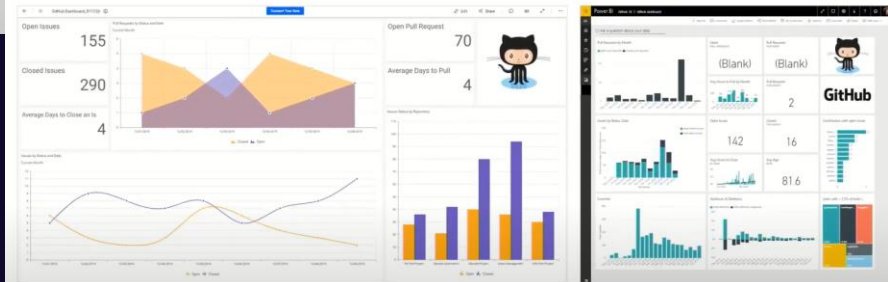
Data Analysis



Task Tracking Tool Analysis (hours)



Repo Analysis



Hurricane Kathrine – What can we sell?



Business and IT Challenges **Hold The Organization Back**

	Challenge	What's Needed Now
	Limited to traditional data repositories	Ubiquitous data access
	Ungoverned and unknown data environments, with underperforming systems	Trusted data recognition
	Siloed data professionals	Collaborative user interaction
	Siloed analytics techniques and adoption issues	Analytics everywhere
	Slow deployment of new insights to the business	A strategic plan to deliver data-driven insights
	Budget Constraints	Prioritization of projects that add value to the business

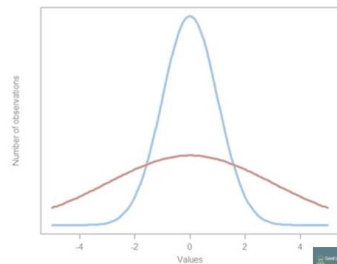
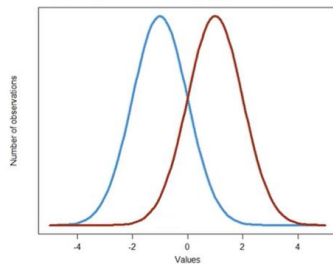
Statistical Comparisons

Data is complex, so need values to summarize its characteristics

Many statistical tests are intended to compare differences in:

Central Tendency:
"typical" or "average" value

Dispersion:
variability in values



Statistical Estimation

Statistics is designed to estimate characteristics of the entire **population** from a representative **sample** of sufficient size

POPULATION



SAMPLE



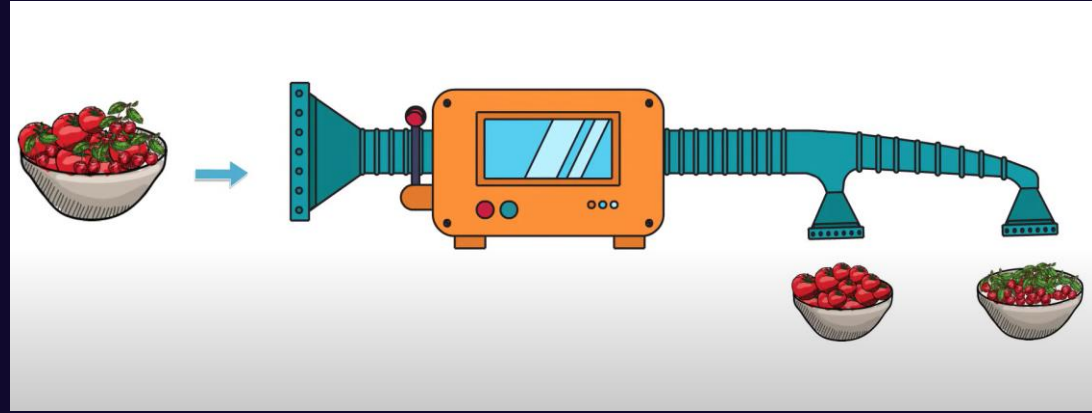
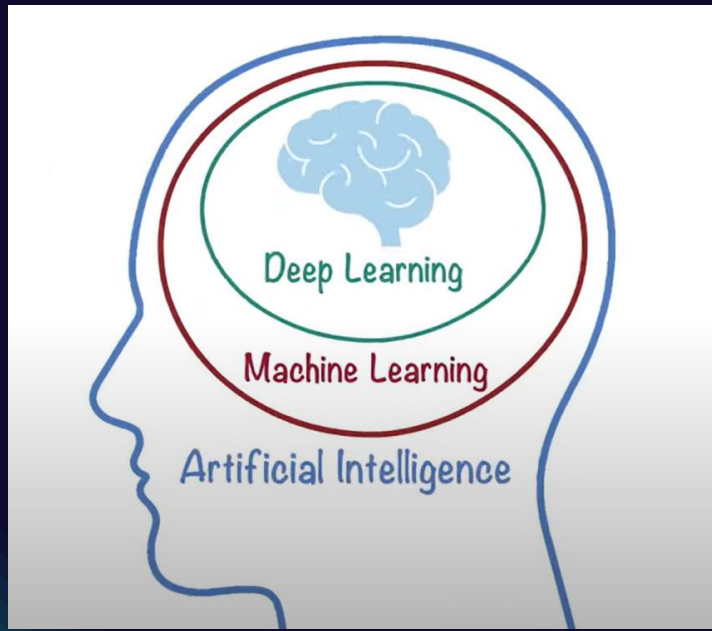
Measures of Central Tendency

Median = Middle value in the series of numbers

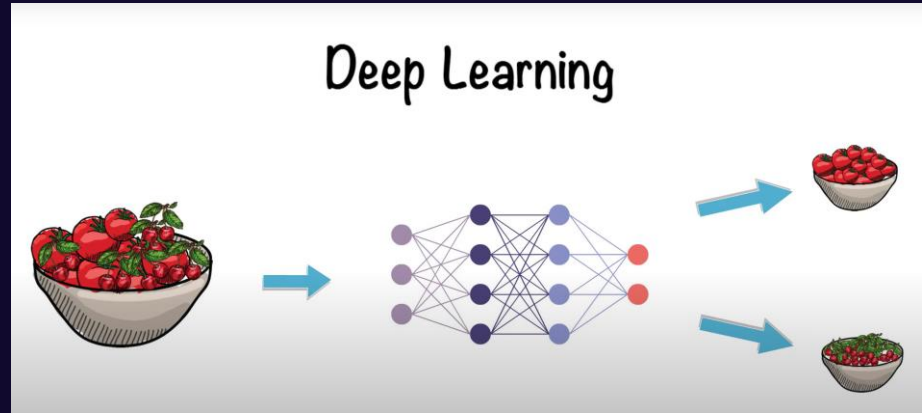
3 4 6 11 22

If number string has an even number of elements, the median is the arithmetic mean of two middle numbers

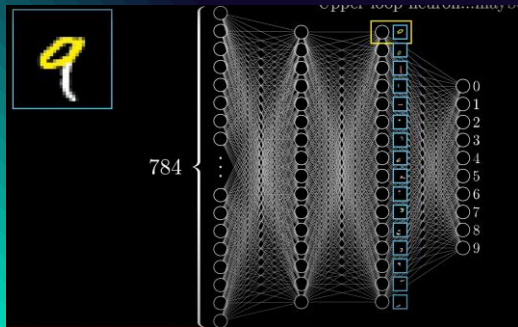
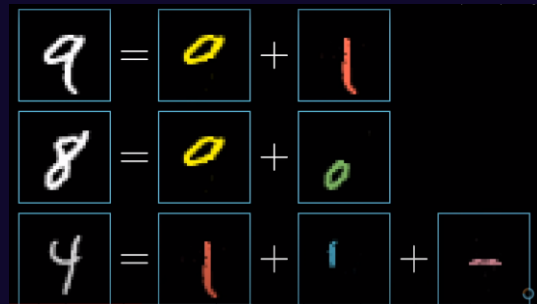
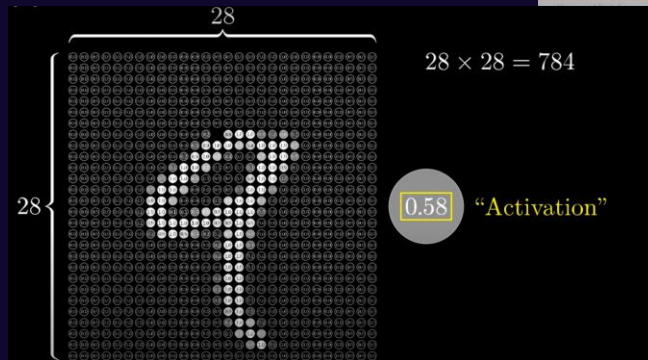
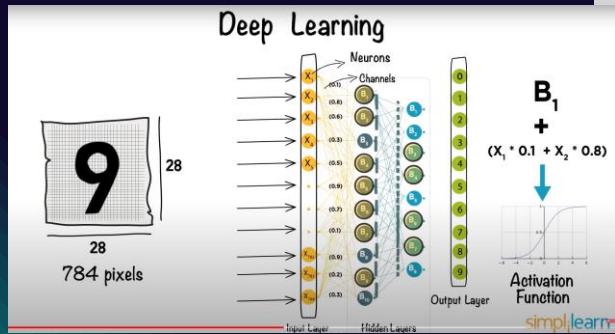
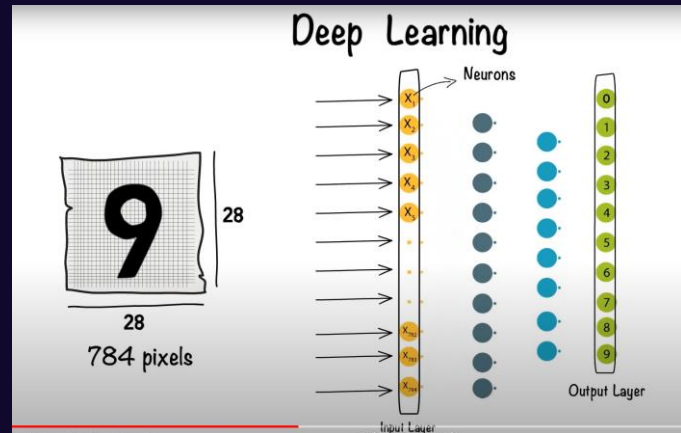
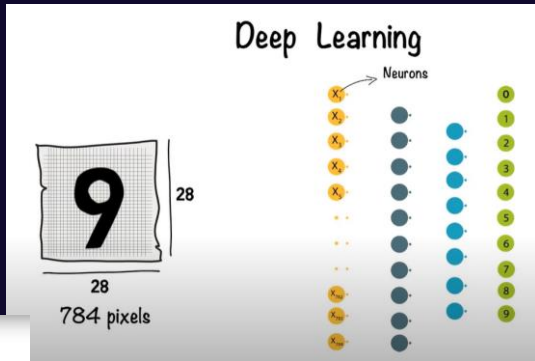
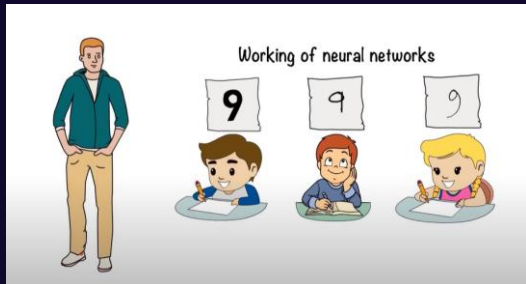
The DevOps Repository Manager
Integrated Experience w/ Artifactory & the New JFrog Pipelines. Free trial
jfrog.com

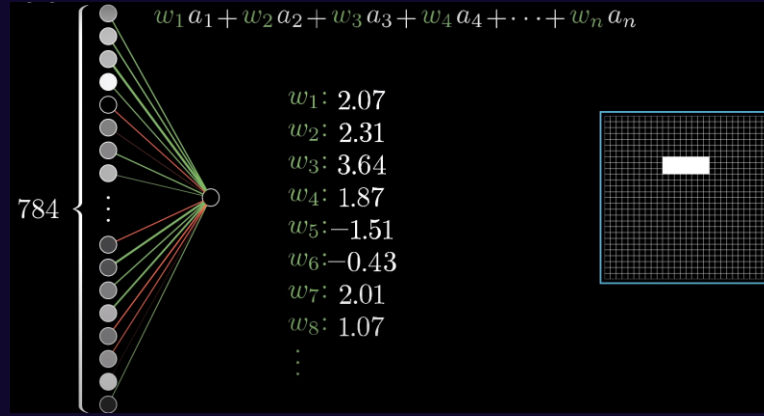
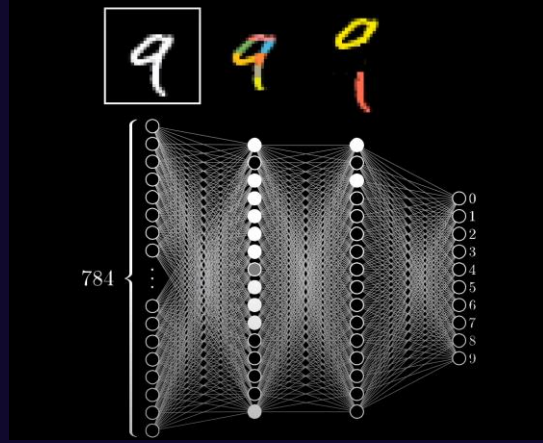


Features		
	Tomato	Cherry
Size		
Type of Stem		







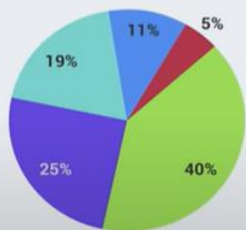


Before

Survey Results

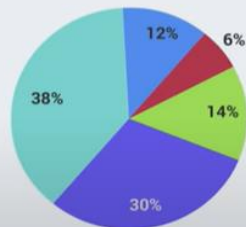
PRE: How do you feel about doing science?

■ Bored ■ Not great ■ OK ■ Kind of interested ■ Excited



POST: How do you feel about doing science?

■ Bored ■ Not great ■ OK ■ Kind of interested ■ Excited

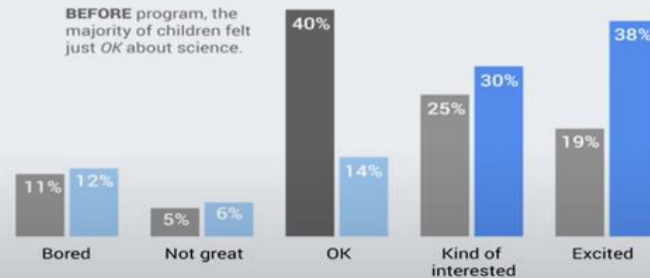


After

Pilot program was a success

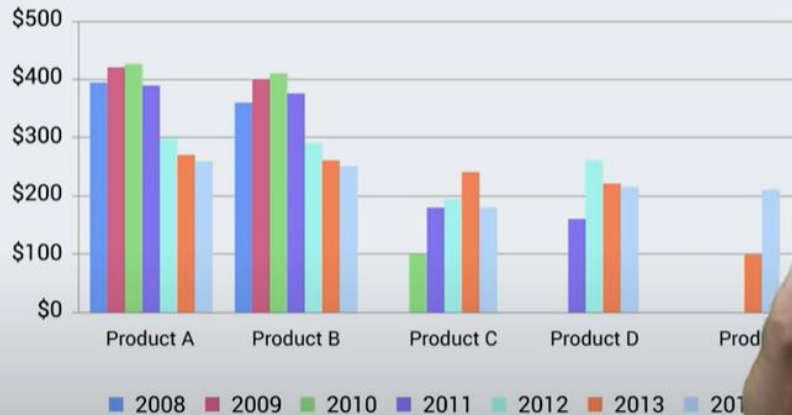
How do you feel about science?

BEFORE program, the majority of children felt just OK about science.



Before

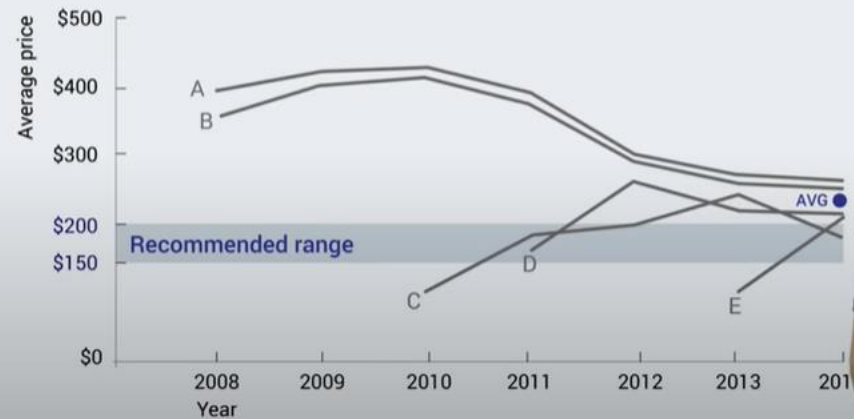
Average Retail Product Price per Year



After

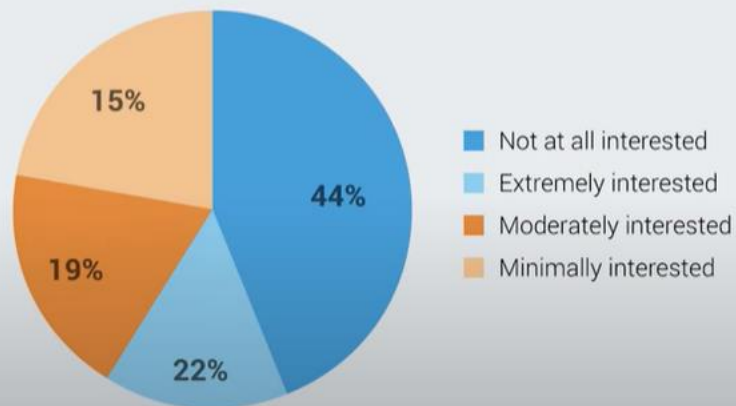
To be competitive, we recommend introducing our product below the \$223 average price point in the **\$150-\$200 range**

Retail price over time by product



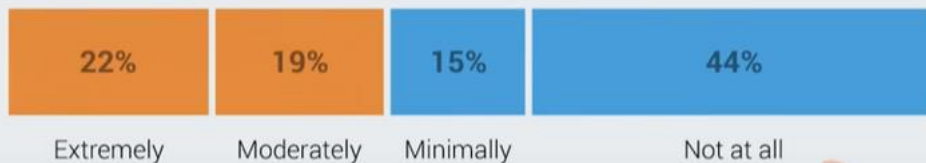
Before

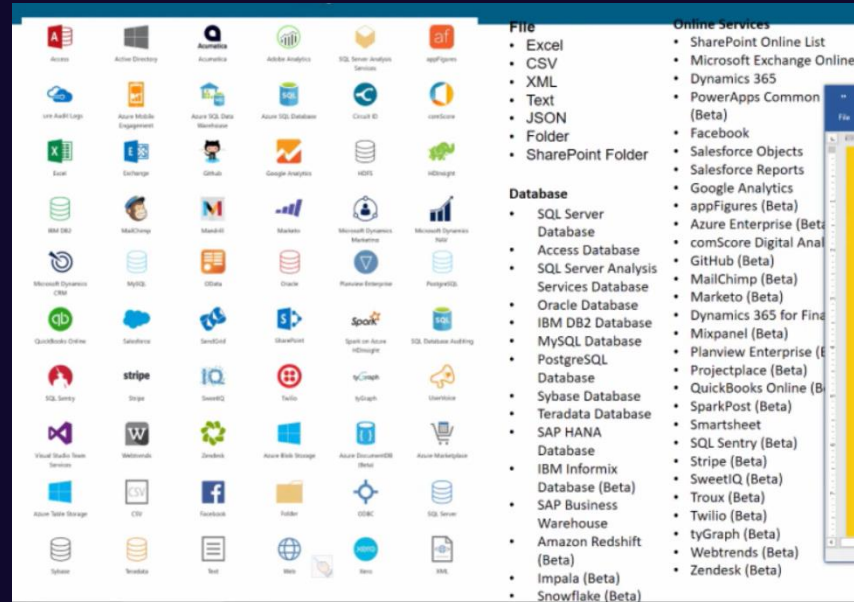
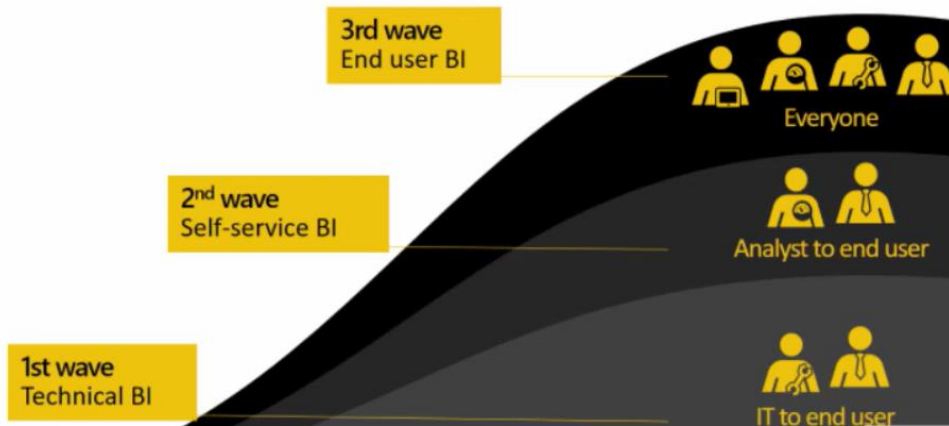
HOW INTERESTED ARE YOU
IN THIS PRODUCT?

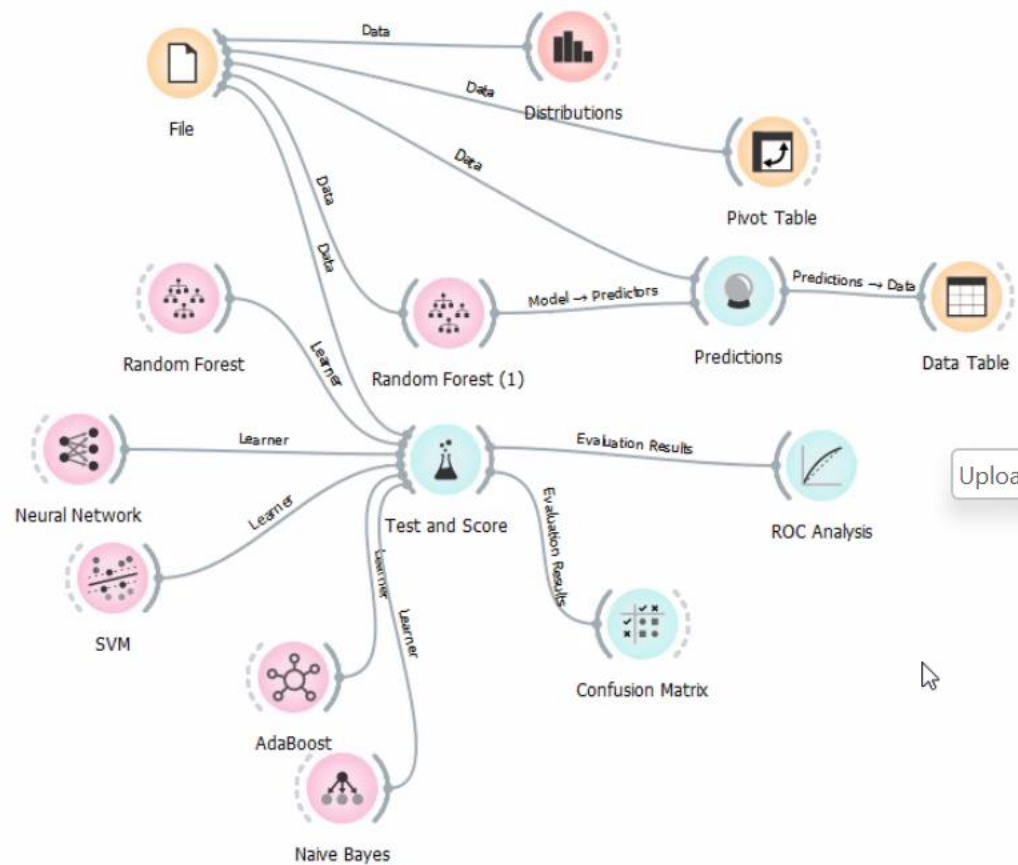


After

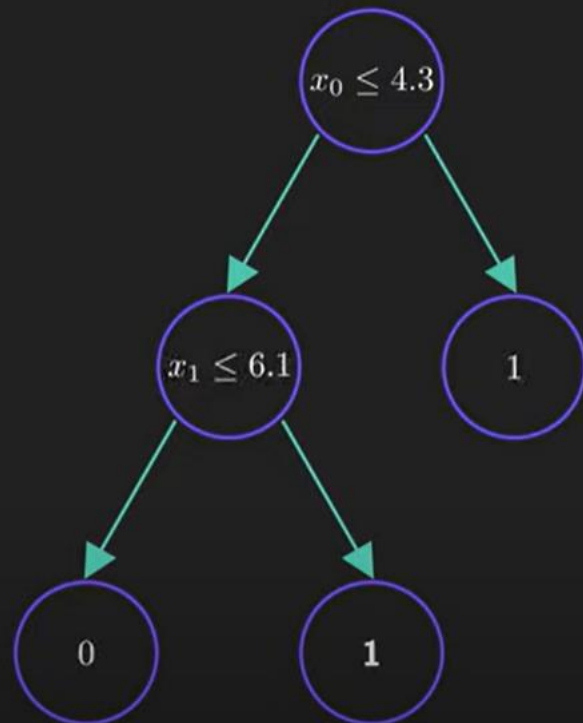
HOW INTERESTED ARE YOU IN THIS PRODUCT?

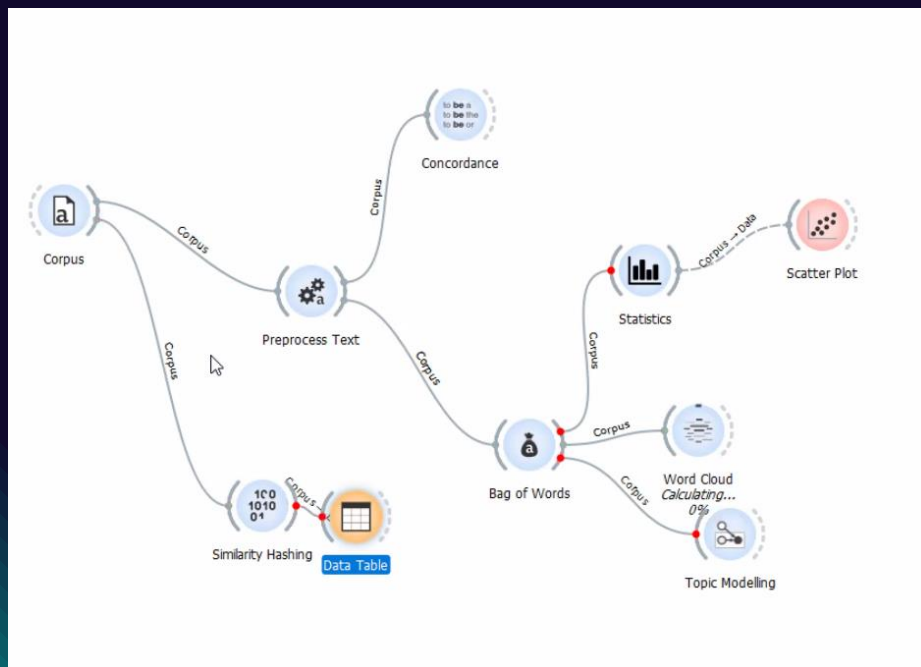






id	x_0	x_1	x_2	x_3	x_4	y
0	4.3	4.9	4.1	4.7	5.5	0
1	3.9	6.1	5.9	5.5	5.9	0
2	2.7	4.8	4.1	5.0	5.6	0
3	6.6	4.4	4.5	3.9	5.9	1
4	6.5	2.9	4.7	4.6	6.1	1
5	2.7	6.7	4.2	5.3	4.8	1





הומצא / יצה עם אננס ופפרוני היא שיעור בקסם
בזמן ומקום מסוימים, בידי איזה קנדי ב־1962,
ואז כבש את העולם

המצאת חיבור טעמים כובש היא סוד חמקמק. חוקרים ויזמים
מחפשים אותו, וטרם מצאו. פרויקט נודע במיוחד הוא "שף
ווטסון", הבינה המלאכותית של יבמ, שהוזנה בבערך כל המידע
שבעולם ונשלחה לייצר מתכונים חדשניים, שיכבשו את חוש
הטעם שלנו. אחד מהם מצורף כאן משמאל. אפשר לומר עליו
הרבה דברים, אבל פיצוח של סוד הטעם הוא כנראה לא.
זה לא כי אין כללים. זה כי הנושא לא פשוט. ממש כמונו.

ממרח אדממה, בוריטו בקר, סויה ושוקולד

מחית משמש ושוקולד

circle of competence. –
בתוך מעגל היכולות שלהם, האינטואיציה שלנו
לרוב עובדת נפלא – כי בתור אנשי מקצועי, אנחנו לרוב מנוסים
ומקצועיים במה שאנחנו עושים.

אבל כשיוצאים מהמעגל, האינטואיציה כבר לא רלוונטית, ומה
שמניע את קבלת ההחלטות כבר אינה אינטואיציה, אלא
אימפולסים קדמוניים במוח שלנו, שאמורים "להגן עלינו" –
ושבפועל עושים ההפך, קצת כמו צבי שנעמד באמצע הכביש
וקופא מול האורות של המשאית שמגיעה מולו, במקום לזוז
מהדרך.

כשאתם משחקים משחק מחשב עם אחד הילדים שלכם, הוא
כמעט תמיד מנצח, לא כי הוא "מוכשר לזה" או כי "זה דור אחר",
אלא פשוט מפני שהוא עשה את זה כל כך הרבה פעמים.
איך בוחרים מזגן?

איך בוחרים השקעה?

איך בוחרים שותף לצוות בסטרטאפ?

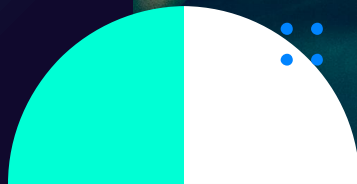
רוב הסיכויים, שהאינטואיציה שלנו, פשוט לא מאומנת בזה, ואז
אנחנו מפעילים כל מיני הטיות קוגניטיביות וסטריאוטיפים,
וקוראים לזה "תחושת בטן".

אחד הדברים שמגדילים את הסיכוי להצלחה, מסביר מאנגר, זה
להבין את גבולות היכולת והאינטואיציה שלנו, ולא לחרוג מהם.

01.

OUR COMPANY

You can enter a subtitle here
if you need it





Data visualization



Our company

You can describe the
topic of the section
here

01.

02.

Our services

You can describe the
topic of the section
here

Our clients

You can describe the
topic of the section
here

03.

04.

Expected projection

You can describe the
topic of the section
here

CONTENTS OF THIS TEMPLATE

Here's what you'll find in this **Slidesgo** template:

1. A slide structure based on a company profile presentation, which you can easily adapt to your needs. For more info on how to edit the template, please visit **Slidesgo School** or read our **FAQs**.
2. An assortment of graphic resources that are suitable for use in the presentation can be found in the **alternative resources slide**.
3. A **thanks slide**, which you must keep so that proper credits for our design are given.
4. A **resources slide**, where you'll find links to all the elements used in the template.



3



Analysis

2012

Mercury is the
closest planet to the
Sun

04

2018

Neptune is the
farthest planet from
the Sun

05

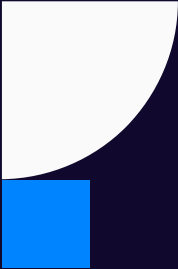
And still
going
stronger!

**A picture
is worth a
thousand
words**



A picture
is worth a
thousand
words





ABOUT US

Mercury is the closest planet to the Sun and the smallest one in the Solar System—it's only a bit larger than the Moon. The planet's name has nothing to do with the liquid metal since it was named after the Roman messenger god, Mercury

OUR HISTORY

2005

Jupiter is the
biggest planet of
them all

01

2008

Venus has a
beautiful name, but
it's hot

02

2010

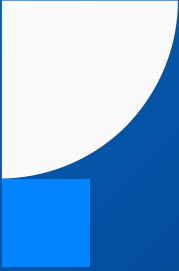
Saturn is a gas
giant with several
rings

03

A picture always reinforces the concept

Images reveal large amounts of data, so remember: use an image instead of a long text. Your audience will appreciate it





“This is a quote, words full of
wisdom that someone
important said and can make
the reader get inspired.”

—Someone Famous



LOCATIONS



Venus

Venus has a beautiful name, but it's hot



Neptune

Neptune is the farthest planet from the Sun



OUR SERVICES



Mercury

Mercury is the closest planet to the Sun



Venus

Venus has a beautiful name, but it's terribly hot



Mars

Despite being red, Mars is actually cold



Saturn

Saturn is a gas giant with several rings



Neptune

Neptune is the farthest planet from the Sun



Jupiter

It's the biggest planet in the Solar System

BEST SELLERS

80%



Jupiter

It's the biggest planet in the Solar System

90%



Venus

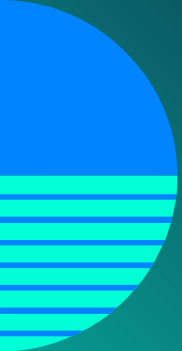
Venus is the second planet from the Sun

75%



Saturn

Saturn is a gas giant with several rings



AWESOME WORDS

CUSTOMER TESTIMONIALS



Helena James

“Mercury is the closest planet to the Sun and the smallest one in the Solar System—it’s only a bit larger than the Moon”



John Datterson

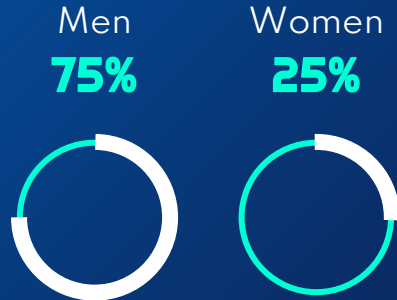
“Despite being red, Mars is a cold place, not hot. The planet is full of iron oxide dust, which gives the planet its reddish cast”

CUSTOMER PROFILE



Gender

Jupiter is the
biggest planet



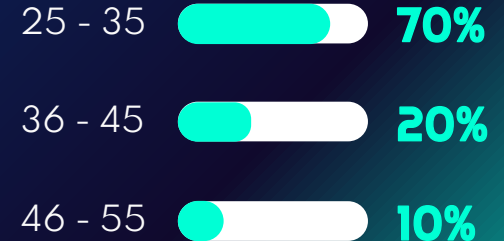
Occupation

Mercury is the
smallest planet



Age

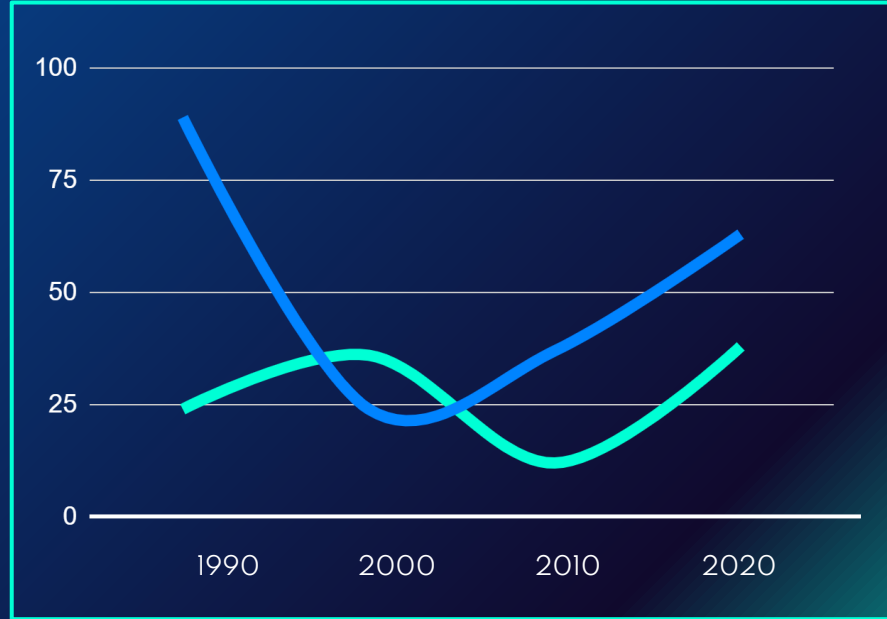
Despite being red,
Mars is cold



OUR GROWTH

20,000
Expected income
for next year

100
New employees
next year



Follow the link in the graph to modify its data and then paste the new one here. **For more info, click here**

OUR NUMBERS



25%

Sales



80%

People



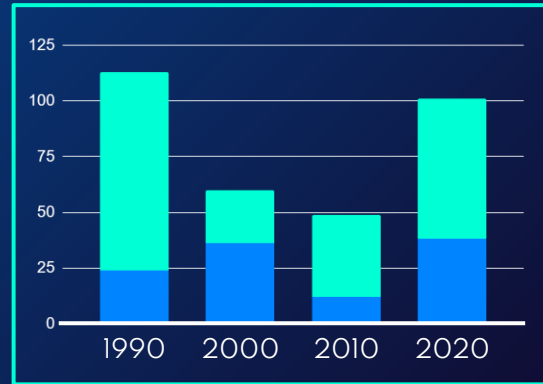
50%

Market



50%

Efficiency



Budget

● Mercury

● Jupiter

\$28.87

Avg. price per unit

30 days

Avg. days on market

40 shops

Retailers

77 units

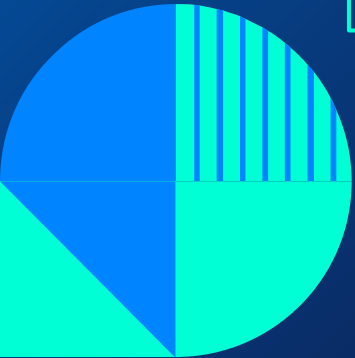
Remaining inventory

Follow the link in the graph to modify its data and then paste the new one here. **For more info, click here**



5,504,300

Big numbers catch your audience's attention

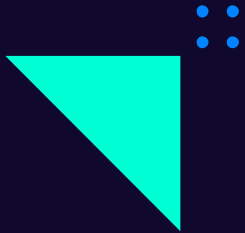


MULTIMEDIA

- You can replace the image on the screen with your own work
- Or you can replace the image on the screen with another image

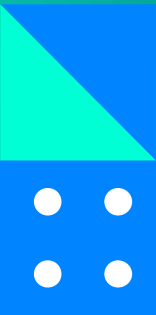
Just right-click on it and select
“Replace image”





9h 55m 23s

Is Jupiter's rotation period



333,000

Earth's is the Sun's mass

OUR TEAM



Jenna Doe

You can replace the
image on the screen with
your own



John James

You can replace the
image on the screen with
your own

AWARDS



Mercury

Mercury is the closest planet to the Sun and the smallest one



Venus

Venus is the second planet from the Sun.
It's hot there



Mars

Despite being red, Mars is actually a very cold place



THANKS

Do you have any questions?

addyouremail@freepik.c
om +91 620 421 88
yourcompany.com

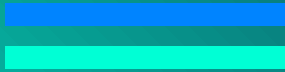


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ALTERNATIVE RESOURCES



RESOURCES

Did you like the resources on this template? Get them for free at our other websites:

PHOTOS

- Close-up man using smart touch screen server
- Business infographics in hologram made by man
- Older man at home showing graph on notepad with tablet on desk
- Close up on person working on device
- Senior woman teaching english lessons at home
- Older man at home showing graph on notepad with tablet on desk

VECTORS

- Technology social media posts set

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Fonts & colors used

This presentation has been made using the following fonts:

Spartan

(<https://fonts.google.com/specimen/Spartan>)

Righteous

(<https://fonts.google.com/specimen/Righteous>)

A dark purple rounded square color swatch.

#10092d

A bright blue rounded square color swatch.

#0084ff

A bright cyan rounded square color swatch.

#00ffd5ff

A white rounded square color swatch.

#ffffffff

Storyset

Create your Story with our illustrated concepts. Choose the style you like the most, edit its colors, pick the background and layers you want to show and bring them to life with the animator panel! It will boost your presentation. Check out [How it Works](#).



Pana



Amico



Bro



Rafiki

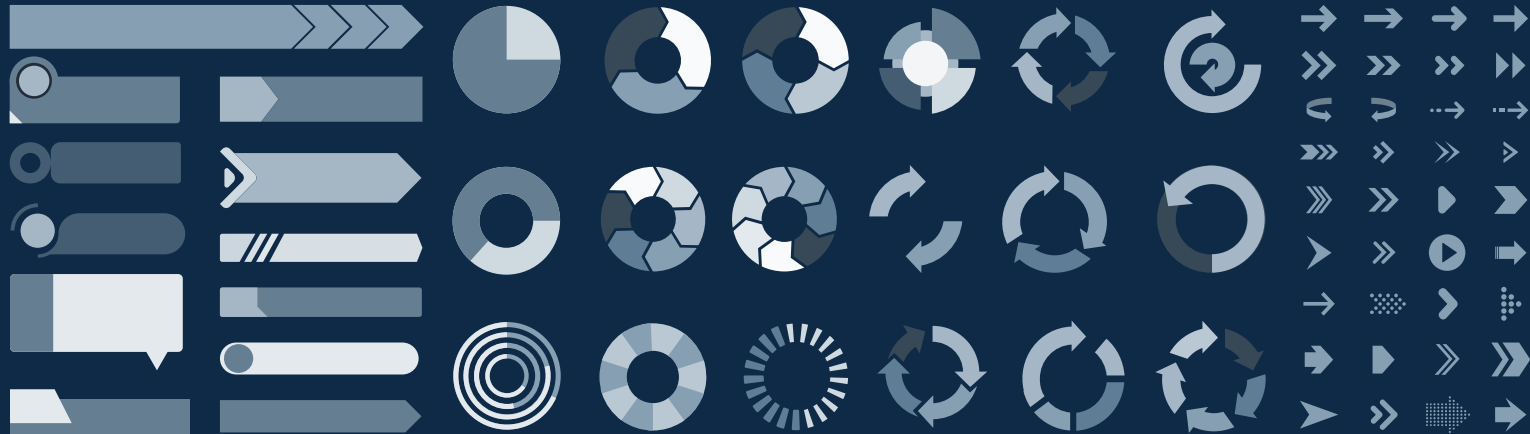


Cuate

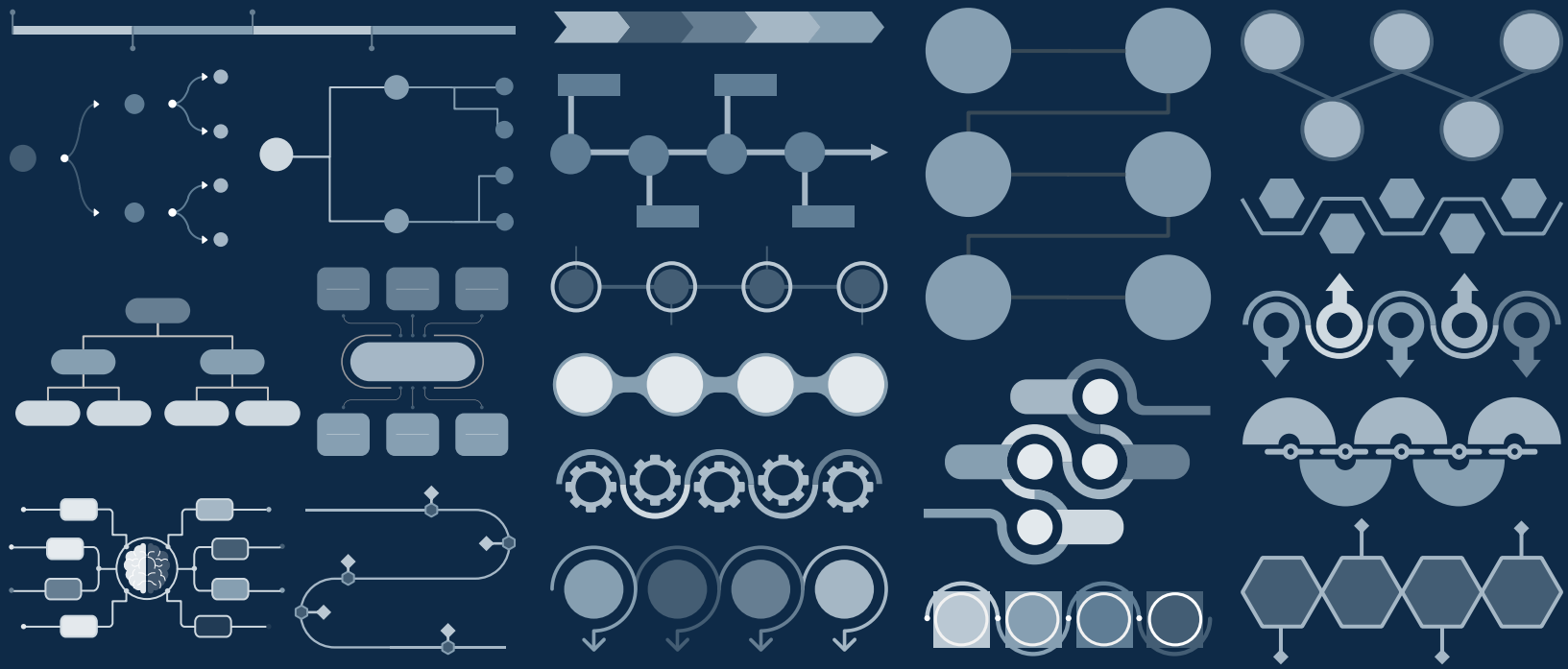
Use our editable graphic resources...

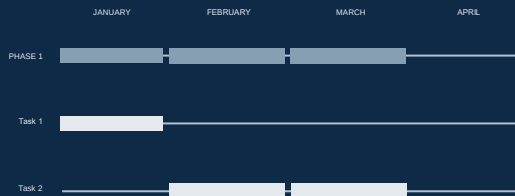
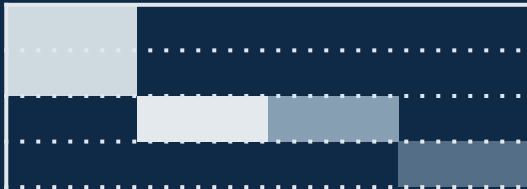
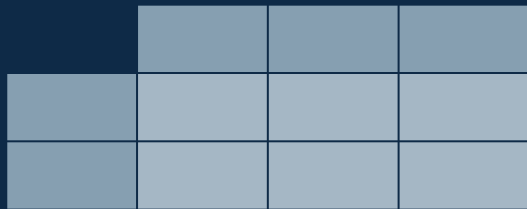
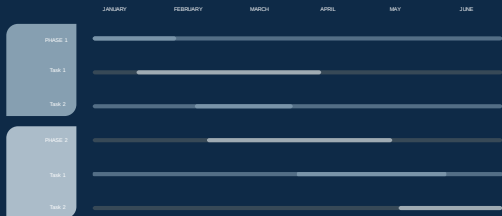
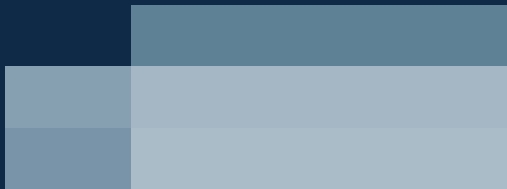
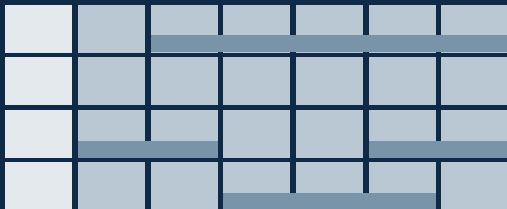
You can easily **resize** these resources without losing quality. To **change the color**, just ungroup the resource and click on the object you want to change. Then, click on the paint bucket and select the color you want.

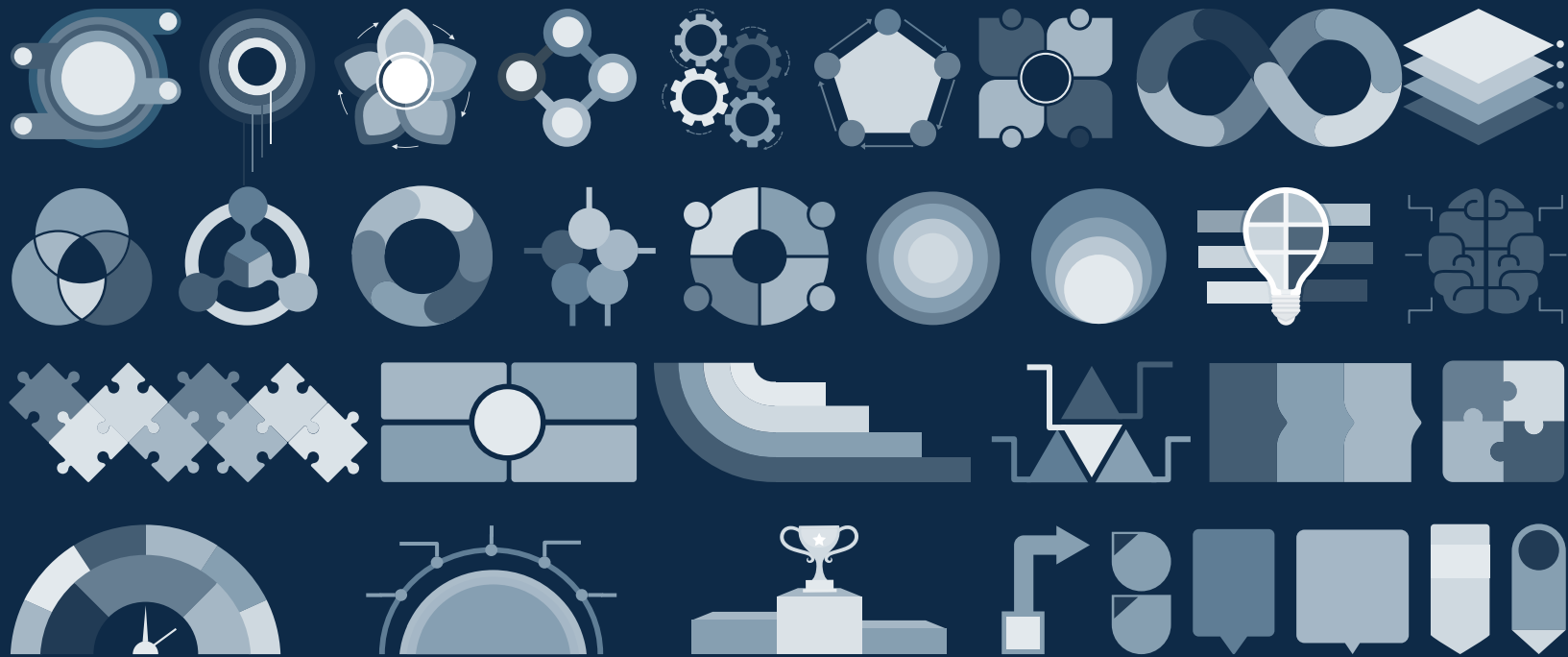
Group the resource again when you're done. You can also look for more **infographics** on [Slidesgo](#).

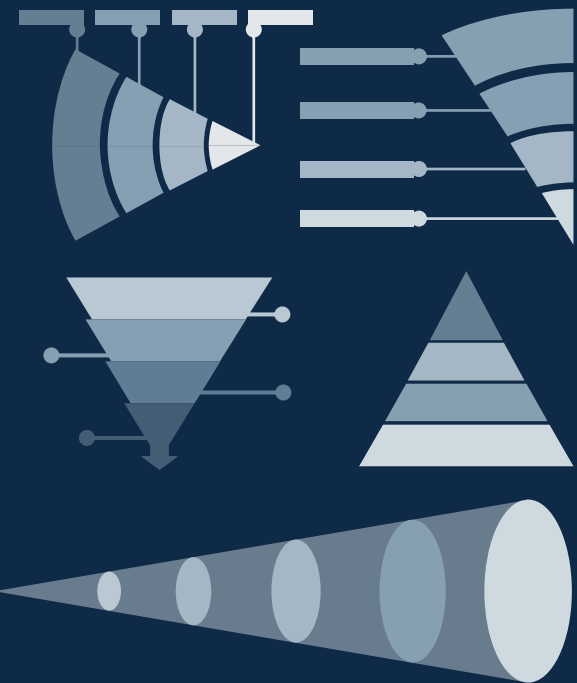
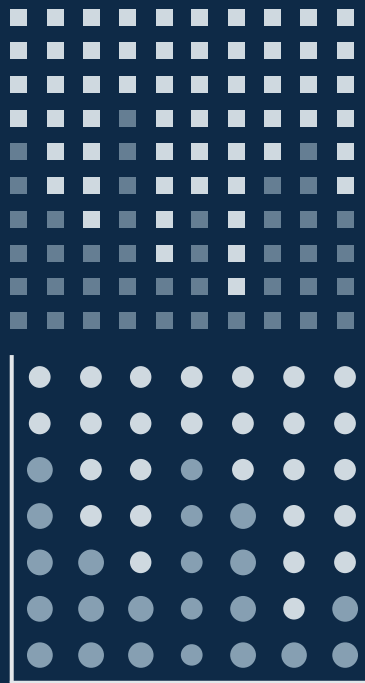












...and our sets of editable icons

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You can change the stroke and fill color; just select the icon and click on the paint bucket/pen.

In Google Slides, you can also use Flaticon's extension, allowing you to customize and add even more icons.



Educational Icons



Medical Icons



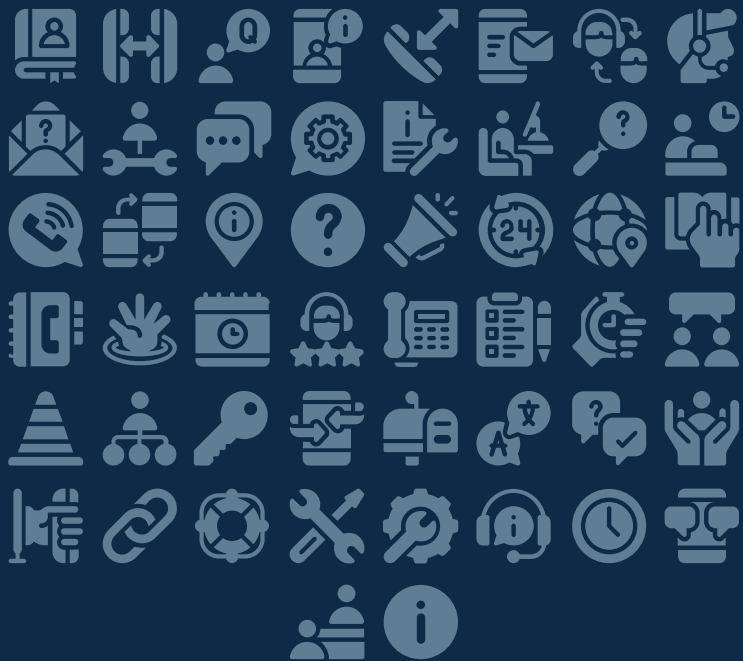
Business Icons



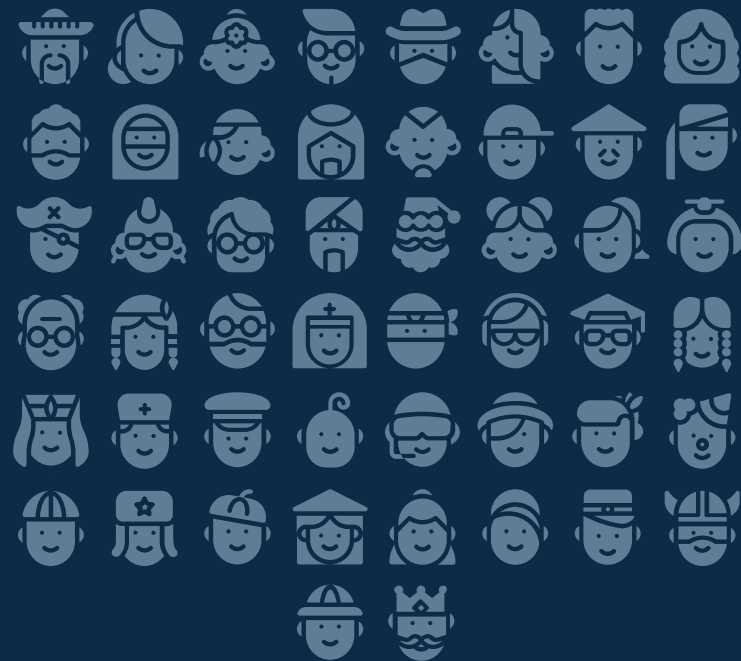
Teamwork Icons



Help & Support Icons



Avatar Icons



[illegible]

Nature Icons



SEO & Marketing Icons







BUSINESS SOLUTION

GLOBAL NETWORK

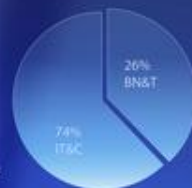
MARKETING STRATEGIC



Projected sales of main products in 2013



Distribution of market share among the major industry players



Distribution of market share among the major industry players: IT & C and BN & T was 74% and 26% percent respectively. A further change in the economic situation in the market will be characterized by a more equal distribution of market share major players.

Share of market activity



Changes in the activity of the active and passive market is uncertain. Established positive trends in various market segments.

Passive market share



Projected sales of main products in 2013





Placeholder text for a list or detailed report, consisting of several lines of small, illegible text.

