

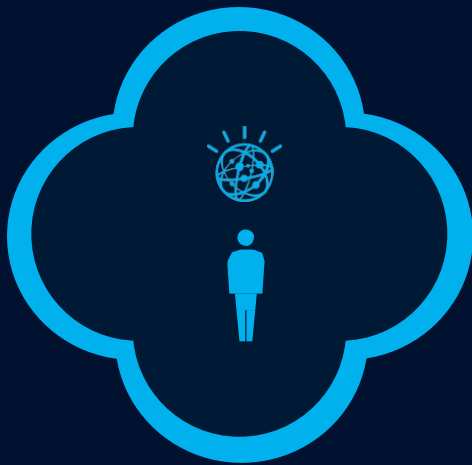
IBM Watson

# Watson Developer Cloud

Get hands-on fast

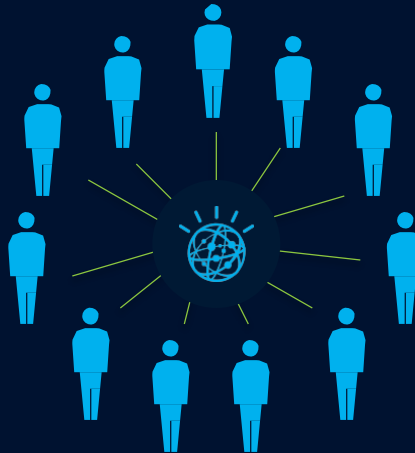


# Watson: a new partnership between human and computers



## Enhance

the cognitive process of professionals to strengthen decision making in the moment



## Scale

expertise by elevating the consistency and objectivity of decision making across an organization.



## Accelerate

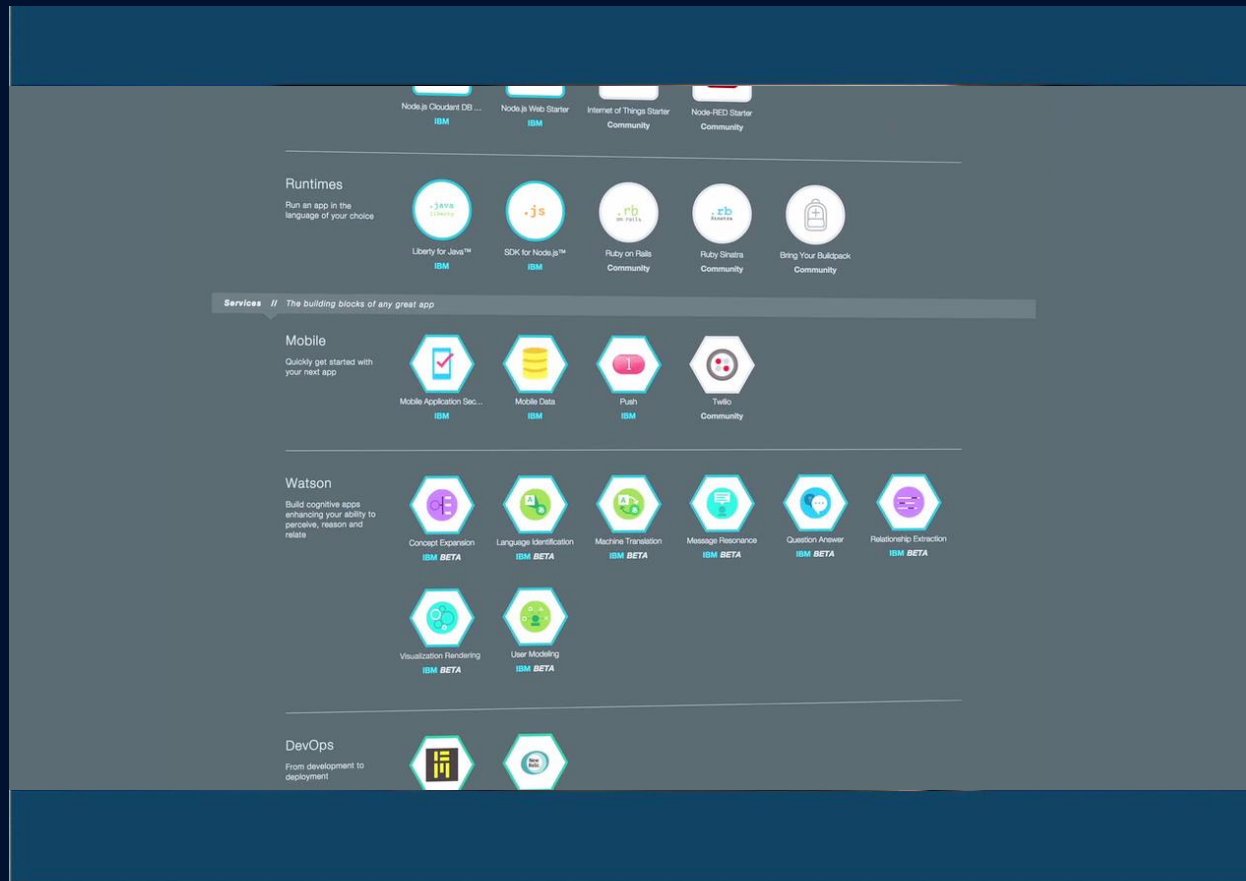
development of expertise in others by capturing the expertise of top performers

# Reusable services form the basis for all Watson cognitive solutions



*The same services are used by business partners, customers, and IBM Developers.*

# Introducing a new way to access Watson services



# IBM has radically expand access to Watson services



Access restricted to partners  
and IBM developers

Wait until services are GA to  
release

North America

One service



Accessible by anyone with a  
Bluemix account

Release in Beta and gather  
input from user community

Global

Eight services and more coming

# Users access Watson services in different ways depending on their needs and goals

## Watson Developer Cloud

**\*\*Trial\*\***

- Developer free access
- Beta services
- Fixed content
- No SLAs

## Watson Developer Cloud

**\*\*Sandbox\*\***

- Enterprise paid access to production and beta services
- Use custom content
- GA-level Q&A service
- Dev SLAs
- Enterprise training

## Watson Developer Cloud

**\*\*Production\*\***

- Clients and ecosystem partners
- Revenue share or monthly fee
- Full service access and custom content
- Prod SLAs

## IBM Products

**\*\*Development & Production\*\***

- Select offerings include 180 day access to services
- Production level when services go GA

# Beta services are accessible through Watson Developer Cloud hosted on IBM Bluemix

## Watson Services for Bluemix

Rapidly prototype and build powerful cognitive apps in the cloud

[SIGN UP FOR A FREE BLUEMIX TRIAL](#)

Connect with Bluemix: [Twitter](#) [Facebook](#) [LinkedIn](#) [YouTube](#) [GitHub](#) Connect with Watson: [Twitter](#) [Facebook](#) [LinkedIn](#)

Get started with the bold new partnership between people and computers today.

30 day trial is free and is followed by standard Bluemix rates



# Watson Developer Cloud Enterprise upgrades service access and support

## Upgraded development resources

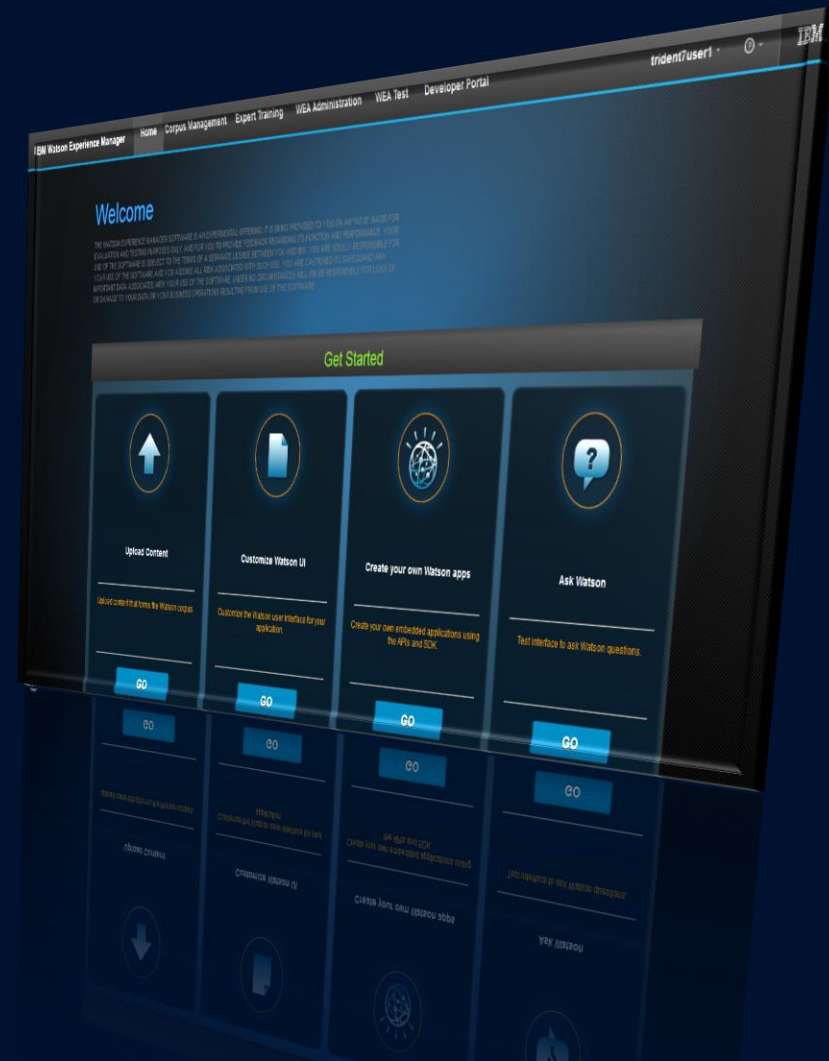
- Bluemix services plus GA-level Question and Answer service
- Dedicated sandbox for non-production development
- Use your own data

## Training

- Forty hours of on-site training

## Clear path to production

- \$50K/Month covers ten developers with upgrade pricing for production





# Watson Ecosystem partner program and client-specific agreements for production development

ISVs develop “Powered by Watson” apps and share revenue with IBM

Innovative IBM clients enhance, scale, and accelerate their expertise with cognitive systems



# Embed Watson services into Watson Explorer applications for cognitive search

Expand Watson Explorer-based cognitive search apps by embedding services from Watson Developer Cloud

The screenshot displays the FlexRate Insurance application interface. The top navigation bar includes links for Home, Discounts, Customers, Policies, Vehicles, and Spaces. The main content area is divided into several sections:

- Customer Information:** Displays details for Brandon Hatcher, including Home Phone, Work Phone, Email, SSN, Date of Birth, and Address.
- Demographic Information:** Shows Education (Bachelors), Age (56), Employment Status (Employed), Gender (M), Marital Status (Married), Years Since Licence Obtained (15), and Income (\$85,234.00).
- Family Members:** Lists Mary Hatcher (Spouse), Robert Hatcher (Son), and Julia Hatcher (Daughter).
- Vehicles:** Lists two vehicles: Civic Si Coupe (Style: Hatchback, Class: D, Year: 1999) and Hurst-Olds 442 (Style: Sports Car, Class: D, Year: 1969).
- Interactions:** A table showing customer interactions with the company, including dates, channels, and descriptions of the interactions.
- Latest Activity:** A section for posting comments on the customer's profile.
- SystemU Analysis:** A circular chart showing various metrics related to the customer's policy, such as Coverage (99%), Risk Score, Needs Challenge (1%), and others.
- Discounts:** A section for viewing available discounts, including a Discounted Roadside Assistance discount.
- Claims Information:** A section for viewing claim status, including a pie chart showing Paid Claims and Denied Claims.

Red arrows point from the text labels on the right to specific features in the interface:

- Developer Cloud Q&A points to the "Ask Watson" chat interface.
- Developer Cloud User Modeling points to the "SystemU Analysis" circular chart.
- Watson Explorer 360° Interface points to the "Claims Information" section.

Developer  
Cloud  
Q&A

Developer Cloud  
User Modeling

Watson  
Explorer 360°  
Interface

# Beta services available now with more in plan

## Available today



### User Modeling

Personality profiling to help engage users on their own terms.



### Message Resonance

Communicate with people with a style and words that suits them



### Concept Expansion

Maps euphemisms to more commonly understood phrases



### Relationship Extraction

Intelligently finds relationships between sentences components



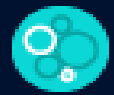
### Machine Translation

Translate text from one language to another.



### Question and Answer

Direct responses to users inquiries fueled by primary document sources



### Visualization Rendering

Graphical representations of data analysis for easier understanding



### Language Identification


Identifies the language in which text is written

## Coming

- Concept Analytics
- Question Generation
- Speech Recognition
- Text to Speech
- Tradeoff Analytics
- Medical Information Extraction
- Semantic Expansion
- Policy Knowledge
- Ontology Creation
- Q&A in other languages
- Policy Evaluation
- Inference detection
- Social Resonance
- Answer Assembler
- Relationship identification
- Dialog
- Machine Translation (French)
- Smart Metadata
- Visual Recommendation
- Industry accelerators

# The Content Marketplace provides data for Watson services

**Watson Content Marketplace** Pricing Next ×



Welcome to the Watson **Content Marketplace**

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**For our October launch, all content is free!**  
As an Ecosystem Partner, you have full access  
to add our content to your app in XManager!

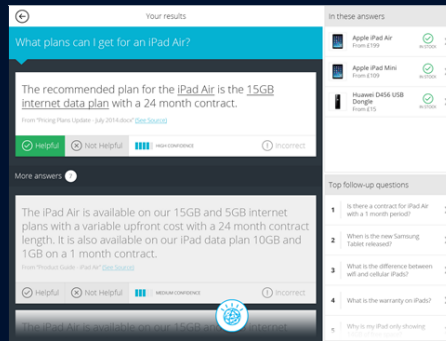
**CDC.gov**  
updated: 9/2/2014  
Short plain language articles written by the CDC covering a wide range of health and (...)

**Wikivoyage**  
updated: 9/2/2014  
Wikivoyage is free worldwide travel guide with over 26,000 English language articles (...)

**National Institute of Diabetes**  
updated: 9/2/2014  
The National Institute of Diabetes and Digestive and Kidney Diseases content (...)

**CDC Traveler's Health**  
updated: 9/2/2014  
Short plain language articles written by the CDC covering a wide range of health and (...)

We ran a five week closed beta with twelve participants. Examples:




*“we’re able to work with cognitive computing capabilities that we couldn’t dream of creating ourselves - it’s a fantastic opportunity and a real chance to transform our industry”*

*“[this] is like putting the Hubble telescope in the hands of a backyard astronomer... Watson’s cognitive possibilities alone will spawn a completely new service industry...”*

# Get hands on fast!

- Get a Bluemix account
- Try the Watson services free of charge for 30 days
- Take the next step toward further development or production deployment



What will you do with Watson?

You have the tools...now use them!

BETA versions of the Watson cognitive service are now available to registered Bluemix users through the Bluemix catalog.

[REGISTER FOR A FREE BLUEMIX TRIAL](#)

[LEARN MORE ABOUT THE WATSON PLATFORM](#)

[BROWSE THE CATALOG](#)

[VIEW THE DOCS](#)

# IBM Watson



[facebook.com/ibmwatson](https://facebook.com/ibmwatson)



[ibmwatson.com](http://ibmwatson.com)



[@ibmwatson](https://twitter.com/ibmwatson)



# User Modeling

## What is it?

Personality profiling to help engage users on their own terms.

## How does it work?

The user Modeling service uses linguistic analytics to extract a set of personality and social traits from the way a person communicates. The service can analyze any communication the user makes available such as their text messages, tweets, posts, email, and more. Users of the service can understand, connect, and communicate with people on a more personally tailored level by analyzing personality and social traits

## Use Cases-

The service can analyze text based on a customer's twitter stream to help a travel agency decide between leading with a budget or luxury trip offer

Anywhere improving a customer engagement can help create an organization differentiate itself.



# Machine Translation

## What is it?

Globalize on the fly. Translate text from one language to another.

## How does it work?

The Machine Translation service converts text input in one language into a destination language for the end user. Translation is available among English, Brazilian Portuguese, Spanish and French.

## Use Cases-

A French speaking help desk representative is assisting a Portuguese speaking customer through a chat session and is able to interact through the translation service



# Message Resonance

## What is it?

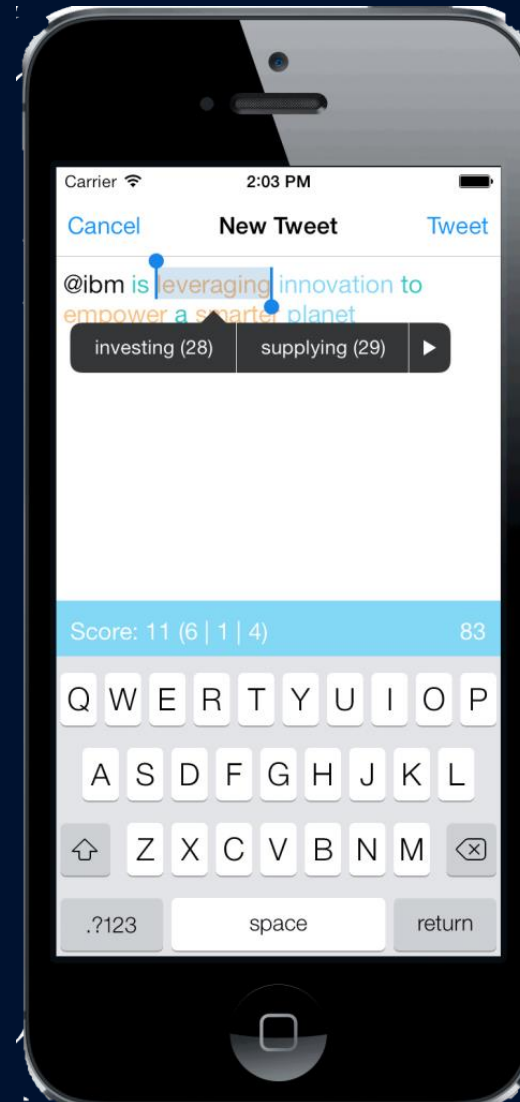
Communicate with people with a style and words that suits them

## How does it work?

The message resonance service analyzes draft content and scores how well it is likely to be received by a specific target audience. This analysis is based on content that's been written by the target audience itself such as fans of a specific sports team or new parents. Today, analysis can be done against people active in cloud computing or discussions but future versions will let users provide their own community data.

## Use Cases-

Among people active in cloud computing discussions, option A content is likely to resonate very well, option B poorly, and option C moderately well.



Visionary mobile prototype

# Concept Expansion

## What is it?

Maps euphemisms or colloquial terms to more commonly understood phrases

## How does it work?

The Concept Expansion service analyses text and interprets its meaning based on usage in other similar contexts. For example, it could interpret “The Big Apple” as meaning “New York City”. It can be used to create a dictionary of related words and concepts so that euphemisms, colloquialisms, or otherwise unclear phrases can be better understood and analyzed.

## Use Cases-

“drugs” can be expanded to:

**start seed terms** → motrin, aspirin, Keflex

**post expansion** → allegra, lisinopril, metformin, aspirin, equagesic, cimetidine, fiorinal, vancomycin, avelox, protonix, glimepiride, protonix, verapamil, norco, inderal, hctz, advair

### Concept Expansion Sample

**Label:**

**Corpus:** ☒ Medical Transcriptions <http://www.mtsamples.com>  
☐ Social Media - WARNING: Might take a couple minutes depending on seed list

**Seeds:**

### Output:

Prevalence	Result
24	multivitamin daily , aspirin
19	tricolor 145 mg daily , aspirin
14	penicillin
14	abilify 5 mg daily , motrin
12	venom - bee / wasp
12	adhesive tape
10	aspirin , plavix
10	aspirin one tablet daily , tylenol
9	hydrocodone / acetaminophen tablets and motrin
7	insulin sliding scale , tylenol
7	aricept 5 mg daily , tylenol
6	oxazepam 15 mg daily ; aspirin
6	a beta blocker , aspirin
6	nkda . medications : tylenol
6	plenty of fluids . tylenol
6	antiinflammatories or aspirin
6	2 . tylenol
6	d . 2 . tylenol
6	lasix on a
6	none . medications : tylenol
6	plan : 1 . aspirin
5	aspirin . dr
5	sublingual nitro
5	lunesta 2 mg
5	5 . aspirin
5	motrin , losartan
5	and aspirin
5	advair 250 as needed , aspirin
5	ibuprofen
5	d . 5 . aspirin
5	he may see dr . xyz
5	daily . 17 . aspirin
5	tylenol . now resolved . 2
5	tylenol . now resolved
5	plan : 1 . motrin
5	cardura

# Relationship Extraction

## What is it?

Intelligently finds relationships between sentences components (nouns, verbs, subjects, objects, etc.)

## How does it work?

Parses sentences into their various components and detects relationships between the components. It can process new terms (like people's names in a news feed) it has never analyzed before through contextual analysis. Sentence components include parts of speech (noun, verb, adjective, conjunction, etc.) and functions (subjects, objects, predicates, etc.). The service maps the relationships between the components so that users or analytics engines can more easily understand the meaning of individual sentences and documents.

## Use Cases-

The service can analyze a news article and pull out the relevant people, organization, event type, date/time, or location of actions taken. It then can relate the components such as what adjective describes what noun and what action a subject takes upon what object.

The United States House of Representatives is one of the two houses of the United States Congress (a bicameral legislature). It is frequently referred to as The House. The other house is the Senate.

The composition and powers of the House are established in Article One of the United States Constitution. The major power of the House is to pass federal legislation that affects the entire country, although its bills must also be passed by the Senate and further agreed to by the U.S. President before becoming law (unless both the House and Senate re-pass the legislation with a two-thirds majority in each chamber). The House has some exclusive powers: the power to initiate revenue bills,[1] to impeach officials (impeached officials are subsequently tried in the Senate),[2] and to elect the U.S. President in case there is no majority in the Electoral College.[3]

Each U.S. state is represented in the House in proportion to its population as measured in the census, but every state is entitled to at least one representative. The most populous state, California, currently has 53 representatives. On the other end of the spectrum, there are seven states with only one representative each (Alaska, Delaware, Montana, North Dakota, South Dakota, Vermont, and Wyoming). The total number of voting representatives is fixed by law at 435.[4] Each representative serves for a two-year term. The Speaker of the House, who presides over the chamber, is elected by the members of the House, and is therefore traditionally the leader of the House Democratic Caucus or the House Republican Conference, whichever party has more voting members. The House meets in the south wing of the United States Capitol.



Legend: GPI EVENT\_COMMUNICATION PEOPLE ORGANIZATION TIME PERSON FACILITY  
CARDINAL LOCATION DATE EVENT\_VIOLENCE

P *Ukraine* said that dozens of pro-Russian separatists were killed in fighting around a regional airport that continued for a second day on Tuesday, forcing schools to close and residents to flee.

P Rebel fighters took over Donetsk International Airport early Monday.

P prompting the military to deploy helicopters, fighter jets and paratroopers to regain control of the main terminal.

P The Journal's reporters have been posting photos to social media from Ukraine as the country has fallen into turmoil.

P See the photos.

P Follow the continuing conflict in and around eastern Ukraine.

P "The airport is under our full control," Interior Minister Arsen Avakov said on Tuesday.

P "The enemy suffered serious losses and we have lost none."

P He estimated that dozens of separatist fighters had been killed, and said the combat operation was continuing to drive out the remnants of the pro-Russian forces.

PERSON

\*3 mentions in yellow refer to the same person; so that you can infer that Avakov estimated the number of killed.

# Question and Answer

## What is it?

Direct responses to users inquiries fueled by primary document sources

## How does it work?

Interprets and answers user questions directly based on primary data sources (brochures, web pages, manuals, records, etc.) that have been selected and gathered into a body of data or 'corpus'. The service returns candidate responses with associated confidence levels and links to supporting evidence. The current data corpora on BlueMix focuses on the Travel and Healthcare industries.

## Use Cases-

Healthcare: What is a stroke? What is the cause of Wilson Disease?

Travel: Where is the best place to stay in Prague?

- Question is passed through the API
- Watson decomposes the question to understand multiple interpretations of it
- Generates hypothesis through multiple sources
- Scores the hypothesis and evidence
- Synthesis the scoring to generate a response
- Delivers response Evidence



Asks a question



Understands question



Produces possible answers and evidence



Analyzes evidence



Computes confidence



Delivers response, evidence and confidence



Considers response and evidence

# Visualization Rendering

## What is it?

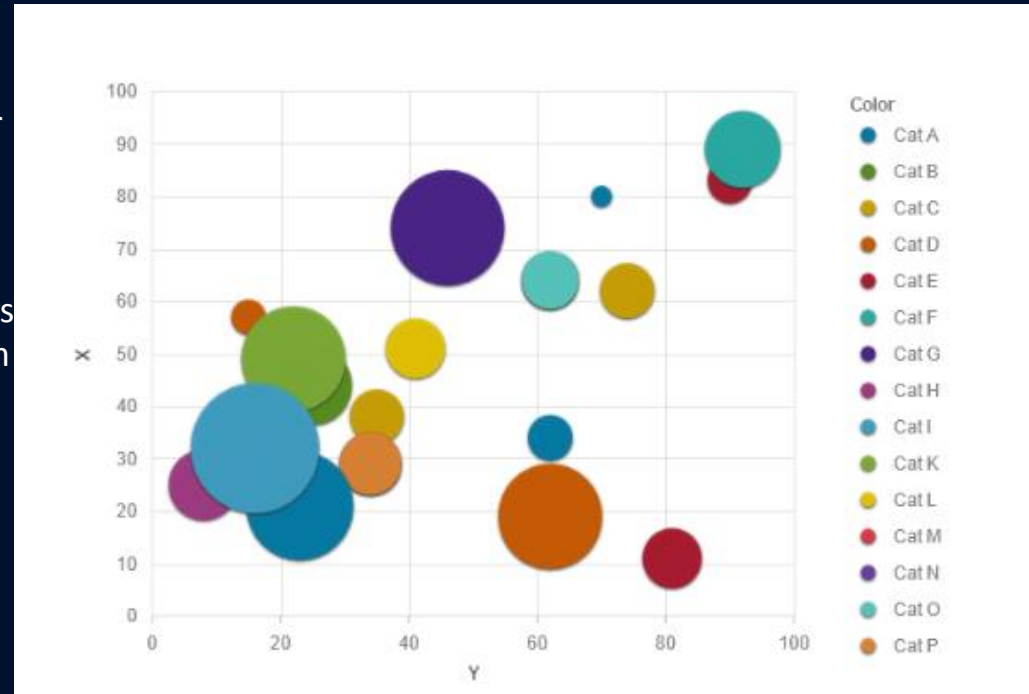
Graphical representations of data analysis for easier understanding

## How does it work?

The service takes input data and graphically renders as an interactive visualization which can range from common business chart to more advanced layouts. The visualizations can be easily modified to match user needs, visual styling, and types of data being analyzed.

## Use Cases-

The service could represent neighborhood demographic data as mini pie charts showing income levels centered on geographic locations on maps, or as tree maps that can switch from looking at income by age to house size or by education level.





# Language Identification

## What is it?

Identifies the language in which text is written

## How does it work?

The Language Identification service detects the language in which text is written. This helps inform next steps such as translation, voice to text, or direct analysis. The service can be used in tandem with the Machine Translation service. Today, the service can identify 15 languages – Arabic; Chinese (Simplified); Chinese (Traditional); Cyrillic; Danish; Dutch; English; Farsi; Finnish; French; German; Greek; Hebrew; Hindi; Icelandic; Italian; Japanese; Korean; Norwegian (Bokmal); Norwegian (Nynorsk); Portuguese; Spanish; Swedish; Turkish; Urdu

## Use Cases-

A building block for Machine Translation and future tech



The screenshot shows a web interface for the Language Identification service. At the top right is a green button labeled "Launch Demo". Below it, the title "Detecting the language of input text" is displayed. A text input area contains a paragraph of Chinese text: "英国利物浦约翰·穆尔斯大学学者威尔金森在研究报告中说，根据一个简单的数学模型显示，蜥脚类恐龙体内微生物制造的甲烷数量可能对中生代气候产生重要影响。". Below the text area is a "Submit" button. At the bottom, a grey bar displays the detected language "zh-CN".