CYBERSOLUTION TECHNOLOGIES
Vol. 1 (2025) , Issue 4 (April) : EXTRA

360 EXTRA

TOPICS IN SMART CITY

Fundamental and Applications

Intelligent Robotic

- Delivery Robot
- Disinfection Robot
- Cleaning Robot
- Customized
- Sales and Marketing
- Maintenance and Support
- Technology transfer/Training
- Partnership

Geospatial (GIS)

- Technology R&D and Application
- Dashboard/Platform Development
- Database/Big Data and Integration
- Experience Gallery/Command Center

Smart City

- Event showcase
- Partneship/Consortium collaboration
- Product Talk/Technology sharing/Consultancy
- Grant,Tender and paperwork
- Course/Knowledge gathering

Research and Development

- R&D matching grants
- AI, Robotic, IoT and Smart City components
- Collaboration and partnership
- Technology/Service provider

STEM Education (STREAMLAB 4.0)

- Robotic Arm (Dobot)
- Humanoid (LEJU Aelos)
- 3D Printing & 3D Modelling Software
- Augmented Reality (AR)
- Laser Engraving
- DIY Mini Projects
- Computer Vision (AI)
- Automation
- Programming (Java,Phyton,ROS,Block)
- Hardware (Arduino, Raspberry, ESP32..)
- Training and Sharing Knowledge

Urban Farming

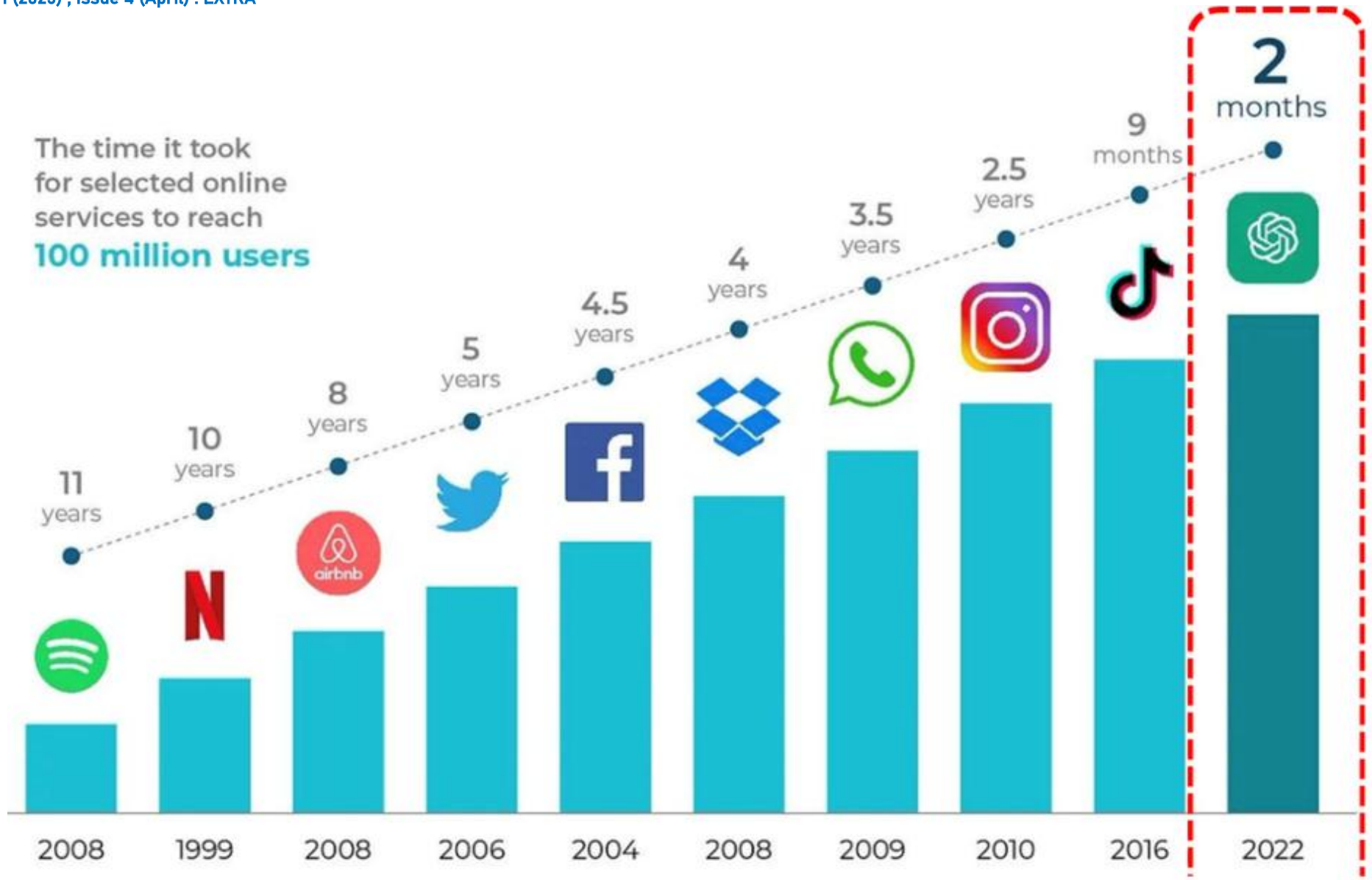
- Hydroponic system
- Monitoring system
- AI and IoT Development
- Sales and Marketing

Training and Consultancy

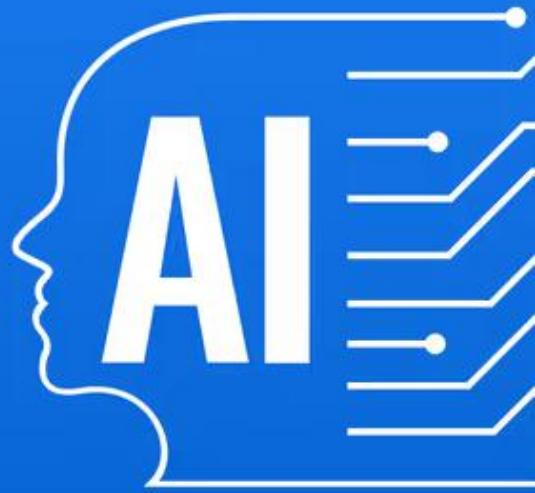
- Industrial panel jury (Expo/FYP/Competition)
- Digital-Entreprenurship
- Internship programme/Talent Development
- University-Industry visit
- Corporate Sosial Responsibilites (CSR)
- Environmental, Social, and Governance (ESG)
- Knowledge Sharing/Consultancy

Source: Vol. 1 (2025) , Issue 1 (January) : EXTRA

CTSB	Name	email	Topic
JB	Yusuf	yusufjohari@cybersolution.com.my	Fastest platforms reaching user milestones.
KL	Faizul	faizul@cybersolution.com.my	CLAUDE for programmers
K.Trg	Aqilah	aqilahazman@cybersolution.com.my	What is data in GIS?
K.Trg	Syafiqah	syafiqahissham@cybersolution.com.my	Digital Twin for Smart City



The duration taken by various online services like Netflix, Twitter, Facebook, Instagram, TikTok, and ChatGPT to achieve 100 million users, highlighting ChatGPT's rapid adoption in merely two months, surpassing previous platforms.

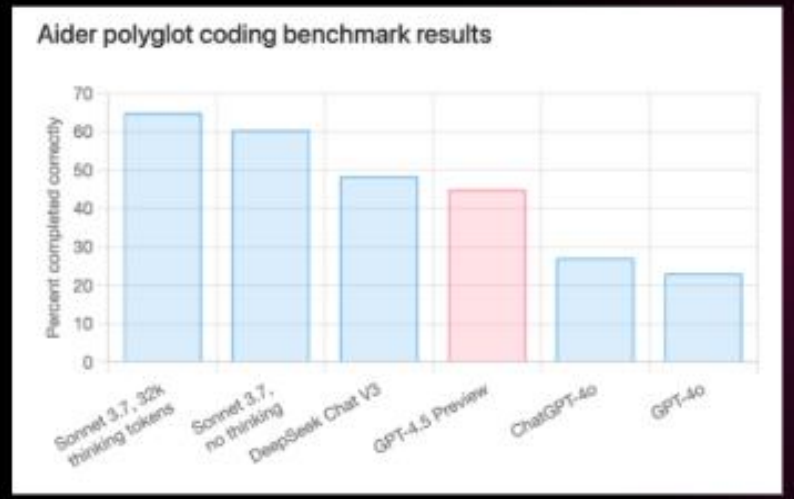


Vol. 1 (2025), Issue 4 (April) : EXTRA

CLAUDE FOR PROGRAMMERS

Claude

Your AI Companion Programming Assistant



What is It?

Claude AI is a generative artificial intelligence chatbot developed by Anthropic. It functions as a large language model (LLM). It excels in deep reasoning, structured outputs, detailed explanations, and better debugging skills. Claude articularly strong in coding-related tasks, such as code generation, code review, and documentation, making it a valuable tool for programmers.

HOW IT CAN HELP ?

CODE GENERATION

- **Complete functions** based on requirements or comments
- **Debug existing code** by identifying errors and suggesting fixes
- **Refactor code** to improve readability and performance
- **Can convert between languages** (Python → JavaScript, SQL → NoSQL, etc.)
- **Generate unit tests** for your functions

PROBLEM SOLVING

- **Break down complex problems** into logical steps
- **Explain algorithms** in plain language
- **Recommend design patterns** for specific use cases
- **Create pseudocode** before implementation
- **Optimize inefficient** code with better approaches

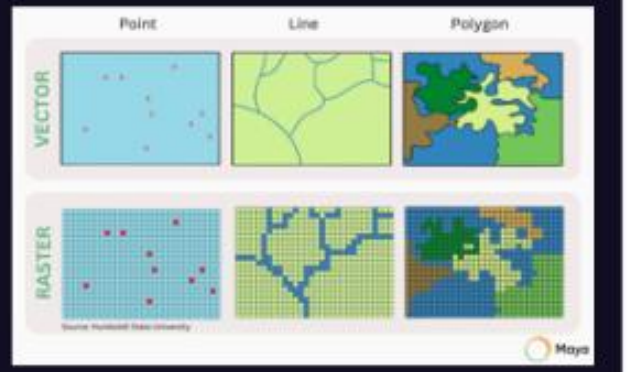
LEARNING ACCELERATION

- **Explain unfamiliar concepts** with practical examples
- **Compare technologies/frameworks** to help you choose the right tool
- **Simplify documentation** from complex libraries
- **Create personalized tutorials** for topics you're learning
- **Answer questions** about any programming concept

GIS

What is Data in GIS?

Data in Geographic Information Systems (GIS) is the core component that makes spatial analysis, mapping, and decision-making possible. At its heart, GIS data is information that is linked to a specific geographic location on the Earth's surface.



Attributes Example

ID	Building Type	Levels
101	Private home	1
102	School	3
103	Office	42

ID	Road Type	Length
1	Main road	133.4
44	Farm path	67.1

ID	Land Use	Area
1	Urban	5520.10
44	Agriculture	312.23

GIS data into two main types

1) Spatial Data: This describes the *where* – the location, shape, and spatial relationships of geographic features. It provides the geometric information that allows features to be displayed on a map. Spatial data comes in two primary formats:

Vector Data: This format uses coordinate pairs (x, y, and sometimes z for elevation) to define points, lines, and polygons.

Raster Data: This format represents geographic space as a grid of equally sized cells or pixels. Each cell in the grid holds a value that represents a characteristic or condition of that location.

2) Attribute Data: This describes the what and what about the geographic features represented by spatial data. It's the non-spatial information that provides characteristics, properties, or statistics about the spatial features.

Vol. 1 (2025) , Issue 4 (April) : EXTRA

DIGITAL TWIN

A Smart Mirror of the Real World for Smarter Cities

Digital Twin — a virtual representation of a real-world object, process, or system. It uses real-time data from sensors, devices, or systems to mirror what's happening in the real world, aiming to leverage technology to enhance urban living and decision-making in smart cities.

"A digital twin is the bridge between today's data and tomorrow's smarter urban decisions."

Key Components

- Real-World Object
- Sensors and IoT Devices
- Data Connectivity
- Digital Platform
- AI & Analytics

Why It Matters?

- Predict issues before they happen
- Make smarter urban planning decisions
- Improve public services and safety
- Enhance citizen experience

Real-World Digital Twin Cities

- **Singapore - The Powerhouse of Virtual Planning**
  Virtual Singapore is a smart 3D city model that helps plan, simulate, and manage the city using real-time data for better decisions and sustainability.
- **Seoul - S-Map and Beyond**
  Seoul's S-Map is a 3D digital twin that helps manage traffic, plan development, and improve public services, making daily city life smarter and smoother.

CYBERPORT CYBER ROBOTICS CYBERSOLUTION TECHNOLOGIES

Kuala Lumpur

15 & 16, 2nd Floor Resource Centre,
IIC, Technology Park Malaysia,
Lebuhraya Puchong-Sg. Besi, Bukit
Jalil, 57000 Kuala Lumpur

+ 6019- 321 6866

Johor Bahru

Level 8 & Level 30,
Menara MSC Cyberport,
No. 5, Jalan Bukit Meldrum, 80300
Johor Bahru,
Johor Darul Ta`zim, Malaysia

+ 607-276 1251
+ 607-278 1251 (Fax)

Kuantan

Level 6H, Level 6 Menara Zenith,
Jalan Putra Square 6, 25200, Kuantan,
Pahang

+ 609-9531 6008

Terengganu

Pusat Sains & Kreativiti Terengganu
(Kamar Ar-Rayyan) Kampung Laut
Chendering, 21080 Kuala
Terengganu, Terengganu

+ 6019-321 6866

Sarawak

Private Suite 5, Ground Floor, Block B,
TEGAS DIGITAL VILLAGE, Sama Jaya
High Tech Park, 93350 Kuching,
Sarawak

+ 6010 564 8700

Indonesia International

Jl. Ring Road Utara Ngringin,
Condongcatur, Kec. Depok,
Kabupaten Sleman, Daerah Istimewa
Yogyakarta 55283, Indonesia