CS 519 Cloud Computing Overview

**VL03: Going Global with AWS Global Infrastructure**

School of Technology and Computing

## **Instructions**

## For this activity you will be study this case:

<https://press.aboutamazon.com/news-releases/news-release-details/twitter-selects-aws-strategic-provider-serve-timelines>

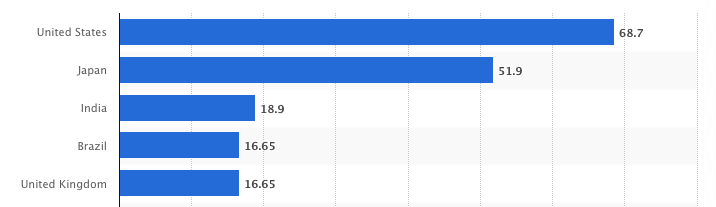
**Countries with the most Twitter users 2020**

**Source:** <https://www.statista.com/statistics/242606/number-of-active-twitter-users-in-selected-countries/>

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Social network Twitter is particularly popular in the United States, where as of October 2020, the microblogging service had audience reach of 68.7 million users. Japan and the India were ranked second and third with 51.9 and 18.9 million users respectively. Global Twitter usage As of the fourth quarter of 2019, Twitter had 152 million monetizable daily active users worldwide. The most-followed Twitter accounts include celebrities such as Katy Perry, Justin Bieber and former U.S. president Barack Obama.

**Leading countries based on number of Twitter users as of October 2020(in millions)**



Given the top five leading countries in the above bar graph, look for the closest AWS Regions and Availability Zones for the five countries.

**United States:**

North America

Edge locations: Ashburn, VA (6); Atlanta, GA (6); Boston, MA (3); Chicago, IL (6); Dallas/Fort Worth, TX (6); Denver, CO (2); Hayward, CA; Hillsboro, OR (3); Houston, TX (4); Jacksonville, FL; Los Angeles, CA (5); Miami, FL (4); Minneapolis, MN; Montreal, QC; New York, NY (2); Newark, NJ (7); Palo Alto, CA; Philadelphia, PA (2); Phoenix, AZ (2); Salt Lake City, Utah; San Jose, CA (2); Seattle, WA (3); Toronto, ON (2); Vancouver, BC ; Querétaro, MX (2)

Regional Edge caches: Virginia; Ohio; Oregon

US East (Northern Virginia) Region  
Availability Zones: 6  
Launched 2006

Local Zones: 3  
Launched 2020

US East (Ohio) Region  
Availability Zones: 3  
Launched 2016

US West (Oregon) Region  
Availability Zones: 4  
Launched 2011  
Local Zones: 2  
Launched 2019

US West (Northern California) Region  
Availability Zones: 3\*  
Launched 2009

GovCloud (US-West) Region  
Availability Zones: 3  
Launched 2011

GovCloud (US-East) Region  
Availability Zones: 3  
Launched 2018

**Japan:**

Osaka, Japan; Tokyo, Japan

Regional Edge caches:  Tokyo, Japan

Asia Pacific (Tokyo) Region  
Availability Zones: 4\*  
Launched 2011

Asia Pacific (Osaka) Local Region1  
Availability Zones: 1  
Launched 2018

\*New customers can access three Availability Zones in Asia Pacific (Tokyo).

1  Asia Pacific (Osaka) Local Region is a Local Region that is available to select AWS customers who request access. Customers wishing to use the Asia Pacific (Osaka) Local Region should speak with their sales representative.

**India:**

Edge locations: Bangalore, India ,Chennai, India ;Hyderabad, India ;Kolkata, India; Mumbai, India New Delhi, India

Regional Edge caches: Mumbai, India;

Asia Pacific (Mumbai) Region  
Availability Zones: 3  
Launched 2016

**Brazil:**

South America

Edge locations: Bogota, Colombia; Buenos Aires, Argentina; Rio de Janeiro, Brazil (2); Santiago, Chile; São Paulo, Brazil (2)

Regional Edge caches: São Paulo, Brazil

South America (São Paulo) Region  
Availability Zones: 3\*  
Launched 2011

**United Kingdom:**

Europe

Edge locations: Amsterdam, The Netherlands (2); Athens, Greece; Berlin, Germany (2); Brussels, Belgium; Bucharest, Romania; Budapest, Hungary; Copenhagen, Denmark; Dublin, Ireland; Dusseldorf, Germany; Frankfurt, Germany (10); Hamburg, Germany; Helsinki, Finland; Lisbon, Portugal; London, England (9); Madrid, Spain (3); Manchester, England (2); Marseille, France; Milan, Italy (3); Munich, Germany (2); Oslo, Norway; Palermo, Italy; Paris, France (5); Prague, Czech Republic; Rome, Italy; Sofia, Bulgaria; Stockholm, Sweden (3); Vienna, Austria; Warsaw, Poland; Zurich, Switzerland (2)

Regional Edge caches: Dublin, Ireland; Frankfurt, Germany; London, England

Europe (Frankfurt) Region  
Availability Zones: 3  
Launched 2014

Europe (London) Region  
Availability Zones: 3  
Launched 2016

Europe (Paris) Region  
Availability Zones: 3  
Launched 2017

Europe (Ireland) Region  
Availability Zones: 3  
Launched 2007

Europe (Milan) Region  
Availability Zones: 3  
Launched 2020

Europe (Stockholm) Region  
Availability Zones: 3  
Launched 2018

**Resources to check the list of RAZs:**

<https://infrastructure.aws/>

<https://aws.amazon.com/about-aws/global-infrastructure/regions_az/>

Write a 150-word summary to explain your understandings and findings from this lab assignment.

* AWS provides a more extensive global footprint than any other cloud provider, and to support its global footprint and ensure customers are served across the world, AWS opens new Regions rapidly. AWS maintains multiple geographic Regions, including Regions in North America, South America, Europe, China, Asia Pacific, South Africa, and the Middle East.
* An Availability Zone (AZ) is one or more discrete data centers with redundant power, networking, and connectivity in an AWS Region. If an application is partitioned across AZ’s, companies are better isolated and protected from issues such as power outages, lightning strikes, tornadoes, earthquakes, and more. AZ’s are physically separated by a meaningful distance, many kilometers, from any other AZ, although all are within 100 km (60 miles) of each other.
* [AWS Local Zones](https://aws.amazon.com/about-aws/global-infrastructure/localzones/) place compute, storage, database, and other select AWS services closer to end-users. With AWS Local Zones, you can easily run highly demanding applications that require single-digit millisecond latencies to your end-users such as media & entertainment content creation, real-time gaming, reservoir simulations, electronic design automation, and machine learning.