



ACADEMIC YEAR

2021-2022



**ICT TOOLS FOR EFFECTIVE TEACHING
LEARNING PROCESS**

Virtual Lab Exercise Based PCE Activity

Name : D.Parkavi
Roll no : 20CS36
Subject : Data Structures
Subject code : CS8391

Experiment-1

Perform the binary tree
insertion,deletion,searching

Insertion

The screenshot shows a web browser window with the URL `ds1-iiith.vlabs.ac.in/exp/binary-search-trees/bst-insert/bstInsert.html`. The page features a navigation menu on the left with options like 'Aim', 'Overview', 'BST', 'BST-Insert', 'Aim', 'Concept', 'Algorithm', 'Demo', 'BST-Search', 'BST-Delete', 'Analysis', 'Further Readings/References', and 'Feedback'. The main content area is titled 'Binary Search Tree' and includes an 'Instructions' dropdown menu. Below this, there are two buttons: '2' and 'Insert', and a 'Reset' button. The 'Observations' section states: 'Max insertions reached for this instance of demo. Reset if you want to play around more.' A binary search tree diagram is shown with root node 05, left child 03, right child 09, and further nodes 05, 34, 07, and 44.

Searching

The screenshot shows a web browser window with the URL `ds1-iiith.vlabs.ac.in/exp/binary-search-trees/bst-search/bstSearch.html`. The page features a navigation menu on the left with options like 'Aim', 'Overview', 'BST', 'BST-Insert', 'BST-Search', 'Aim', 'Algorithm', 'Demo', 'Practice', 'BST-Delete', 'Analysis', 'Further Readings/References', and 'Feedback'. The main content area is titled 'Binary Search Tree' and includes an 'Instructions' dropdown menu. Below this, there are four buttons: 'Enter Number', 'Insert', 'Search', and 'Reset'. The 'Observations' section states: 'Searching for 13 : 13 = 13 (Element found!)'. A binary search tree diagram is shown with root node 10, left child 5, right child 15, and further nodes 3, 7, 12, 17, 1, 4, 5, 8, 10, 13, 16, and 18. The node containing the value 13 is highlighted with a blue circle.

Deletion

Virtual Labs

ds1-iiith.vlabs.ac.in/exp/binary-search-trees/bst-delete/bstDelete.html

Virtual Labs
An MoE Govt of India Initiative

HOME PARTNERS CONTACT

Enter Number Insert Delete Reset

Observations
7 == 7. Found node to delete

```
graph TD; 8((8)) --> 5((5)); 8 --> 15((15)); 5 --> 3((3)); 5 --> 7((7)); 3 --> 1((1)); 3 --> 4((4)); 15 --> 12((12)); 15 --> 17((17)); 12 --> 10((10)); 12 --> 13((13)); 17 --> 16((16)); 17 --> 18((18)); style 7 stroke:#007bff,stroke-width:2px
```

Virtual Labs

ds1-iiith.vlabs.ac.in/exp/binary-search-trees/bst-delete/bstDelete.html

Virtual Labs
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Enter Number Insert Delete Reset

Observations

```
graph TD; 8((8)) --> 5((5)); 8 --> 15((15)); 5 --> 3((3)); 5 --> 5((5)); 3 --> 1((1)); 3 --> 4((4)); 15 --> 12((12)); 15 --> 17((17)); 12 --> 10((10)); 12 --> 13((13)); 17 --> 16((16)); 17 --> 18((18))
```

Experiment -2

Performed array based implementation of stack

Insertion operation

The screenshot shows the Virtual Labs website interface for the 'Stacks and Queues' experiment. The page features a navigation menu with 'HOME', 'PARTNERS', and 'CONTACT' links. A sidebar on the left contains a menu with 'Overview', 'Recap : Arrays', 'Recap : Linked List', 'Pretest', 'Stacks' (selected), 'Aim', 'Concept', and 'Demo'. The main content area is titled 'Stacks and Queues' and displays an array-based stack implementation. The array is represented as a horizontal row of 8 cells, indexed from 0 to 7. The values in the array are 2, 67, 90, 1, 36, and empty cells for indices 5, 6, and 7. The cell at index 4, containing the value 36, is highlighted in green and labeled 'Top' with an upward-pointing arrow. Below the array, the 'Observations' section states: '36 is pushed into the stack. The index of the top of stack:4'. At the bottom of the interface, there are three buttons: 'Ente' (likely a typo for 'Enter'), 'Push', and 'Clear'.

Virtual Labs
An MoE Govt of India Initiative

HOME PARTNERS CONTACT

Stacks and Queues

Instructions

2	67	90	1	36			
0	1	2	3	4	5	6	7

↑
Top

Observations
36 is pushed into the stack.
The index of the top of stack:4

Ente Push Pop Clear

Deletion operation

The screenshot shows a web browser window with the URL `ds1-iiith.vlabs.ac.in/exp/stacks-queues/stacks/stackarrays.html`. The page title is "Stacks and Queues". On the left, there is a navigation menu with items: Aim, Overview, Recap : Arrays, Recap : Linked List, Pretest, Stacks (expanded), Aim, Concept, Demo, Arrays Practice (highlighted), Time Complexity, Linked List Practice, Exercise, Quiz, and Queues (expanded). The main content area features a dropdown menu labeled "Instructions". Below it is a stack diagram with 8 cells indexed 0 to 7. The stack contains the values 99, 90, 1, and 56. The cell containing 56 at index 3 is highlighted in green, with a green arrow pointing to it labeled "Top". Below the stack, the "Observations" section states: "56 is popped from the stack. The index of the top of stack:3". At the bottom, there is an input field containing the number "2", and three buttons: "Push", "Pop", and "Clear".

Experiment-3

A set of numbers are given in Queue A. With the help of Queue B, dequeue the elements in DESCENDING order

Virtual Labs

ds1-iiith.vlabs.ac.in/exp/stacks-queues/queues/queueexercise.html

HOME PARTNERS CONTACT

Recap : Arrays

Recap : Linked List

Pretest

Stacks

Queues

Aim

Concept

Queues: Demo

Queues Time Complexity

Instructions

Question: A set of numbers are given in Queue A. With the help of queue B, dequeue the elements in DESCENDING order.

Queue A: 6538, 4126, 5510, 3627

Queue B: []

Observations

Execution is reset

Dequeue A Dequeue B Enqueue to B Enqueue to A

Reset New Question Submit

Virtual Labs

ds1-iiith.vlabs.ac.in/exp/stacks-queues/queues/queueexercise.html

HOME PARTNERS CONTACT

Recap : Arrays

Recap : Linked List

Pretest

Stacks

Queues

Aim

Concept

Queues: Demo

Queues Time Complexity

Instructions

Question: A set of numbers are given in Queue A. With the help of queue B, dequeue the elements in DESCENDING order.

Queue A: []

Queue B: 6538, 5510, 4126, 3627

Observations

Your output: 6538,5510,4126,3627

Dequeue A Dequeue B Enqueue to B Enqueue to A

Reset New Question Submit

Experiment-4

Perform various polynomial operations- Addition, subtraction, Multiplication

Virtual Labs

ds1-iiith.vlabs.ac.in/exp/poly-arithmetic/polynomial-arithmetic-linked-list/poly-demo.html

Virtual Labs
An MoE Govt of India Initiative

HOME PARTNERS CONTACT

Polynomial Arithmetic

Instructions

$$2x^2 + 3x + 5$$

$$3x^2 + 4x + 6$$

Observations:
Added x^0 coefficients of $P(x)$ and $Q(x)$

Min. Speed Max. Speed

Start Reset

Virtual Labs

ds1-iiith.vlabs.ac.in/exp/poly-arithmetic/polynomial-arithmetic-linked-list/poly-add-exercise.html

Virtual Labs
An MoE Govt of India Initiative

HOME PARTNERS CONTACT

Polynomial Arithmetic

Instructions

$$P(x) = 9x^4 + 13x^3 + 6$$

$$Q(x) = 3x^2 + 6x + 3$$

$$R(x) = \boxed{9}x^4 + \boxed{13}x^3 + \boxed{3}x^2 + \boxed{6}x^1 + \boxed{9}x^0$$

Observations
Correct Answer

Submit Reset

Turbocharge your classroom ⚡

Get Premium



Activities for My first class

CLASS CODE

ajf6296

Copy



CE8005 / APCE - PCE ACTIVITY 1 (Preview)

Currently active



Analyze 21 results



[← Back](#)

CE8005 / APCE - PCE ACTIVITY 1

by [Arun Kannan](#)

See how the quiz game looks to students

[Preview this quiz](#)

Give to students

Start a class game

Give as homework

Share a link

Print a bubble sheet

Edit the questions

Report

Assigned **1** time

10 questions

Show answers

1

60 sec

Q.

Pollutants which are formed when primary pollutants undergo chemical changes in the atmosphere are called as ?



Primary Pollutants

Secondary Pollutants

Hazardous Pollutants

Tertiary Pollutants

2

60 sec

Q.

_____ is the process of collection of air containing pollutants both from the ambient air and from specific sources.

Sampling

Cleaning

Detailing

Collecting

3

60 sec

Q.

Sources of air pollution are :

Transportation



Factories



Combustion process

4

60 sec

Q.

_____ is a synchronism of two words- smoke and fog.



SMOG



SOG



SFOG



SMOOG

5

60 sec

Q.

The temperature of the ambient air normally decreases with increases in the altitude (height), this change of temperature is called _____



Lapse rate



Plume



W... LB



Meteorology

6

60 sec

Q.

Identify the Looping plume pattern from the images given below:

The answer is an image

7

60 sec

Q.

Identify the Lofting plume pattern from the images given below:

The answer is an image

8

60 sec

Q.

_____ is a graphic tool used by meteorologists to give a succinct view of how wind speed and direction are typically distributed at a particular location.

- None of the Above
- Wind rose
- Lapse Rate
- Plume



9

60 sec

Q.

The environment is said to be unstable & Super adiabatic lapse rate, If ?

- ELR & ALR = 0
- ELR > ALR
- ELR < ALR
- ELR = ALR

10

60 sec

Q.

When the inversion layer exists above the stack and as well as below the stack, the plume neither goes up nor goes down, rather, it gets confined between these two inversion layers. This type of plume pattern is called as

- None of the above
- Fanning
- Trapping Plume
- Fumigating

 Play again

 See all activities



You got **100% (10/10)**

on CE8005 / APCE - PCE ACTIVITY 1

May 4, 2022 1:36 AM

80% 1st try → 100% 2nd try

That's a great result! You've outdone yourself, answering 25% more questions correctly this time.

You've mastered this topic, so let's work on something else!

1st try
80%

2nd try
100%

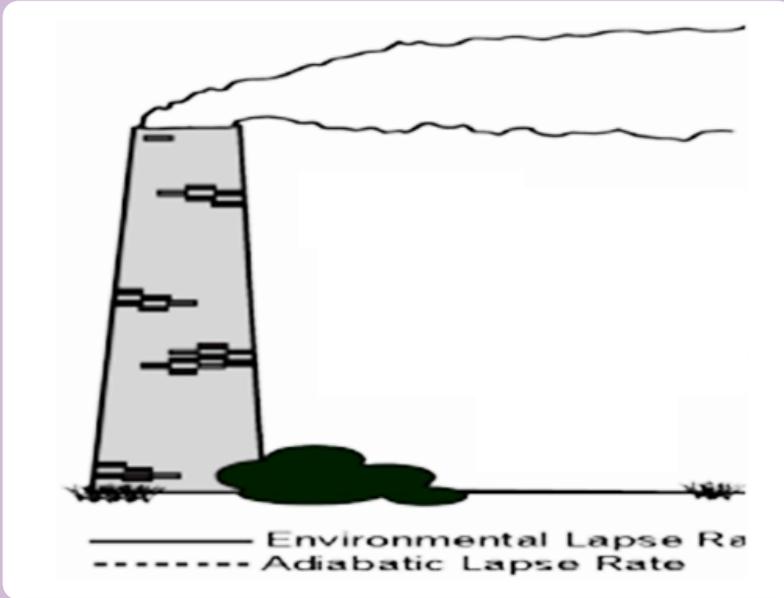
You got

2000 points

Identify the Lofting plume pattern from the images given below:

Play again

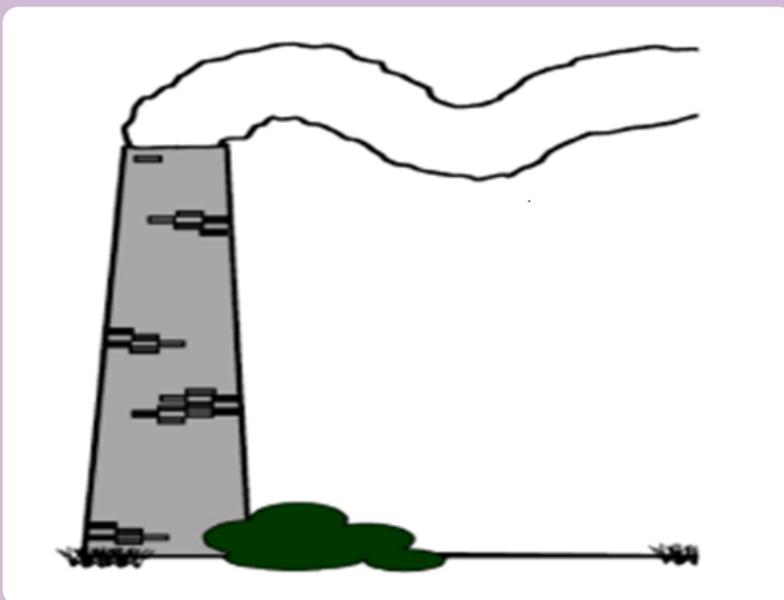
See all activities



in 2.1 secs

200 POINTS

Identify the Looping plume pattern from the images given below:



in 2.0 secs

200 POINTS

Play again

See all activities

Pollutants which are formed when primary pollutants undergo chemical changes in the atmosphere are called as ?

✓ Secondary Pollutants

🕒 in 1.9 secs

200 POINTS

When the inversion layer exists above the stack and as well as below the stack, the plume neither goes up nor goes down, rather, it gets confined between these two inversion layers. This type of plume pattern is called as _____

✓ Trapping Plume

🕒 in 1.5 secs

200 POINTS

Sources of air pollution are :

✓ All the Above

🕒 in 0.9 secs

200 POINTS

_____ is a graphic tool used by meteorologists to give a succinct view of how wind speed and direction are typically distributed at a particular location.

✓ Wind rose

 Play again See all activities**200** POINTS

_____ is the process of collection of air containing pollutants both from the ambient air and from specific sources.

✓ Sampling

🕒 in 0.3 secs

200 POINTS

The temperature of the ambient air normally decreases with increases in the altitude (height), this change of temperature is called _____

✓ Lapse rate

🕒 in 0.1 secs

200 POINTS

The environment is said to be unstable & Super adiabatic lapse rate, If ?

✓ $ELR > ALR$

🕒 in 0.0 secs

200 POINTS

_____ is a synchronism of two words- smoke and fog.



J.PREMKUMARj12

M.JAYASEELANj08

R.KARTHIKEYANv20

JANANI. T. S_06iew

S.ARUNPRASADe04

KURALARASANe09

F.DANIEL NAVISe19

S.SANTHOSH_15w

R.Rengeswari_13w

S.DIVYA_05 view

n.jayachandraniew

P.SATHYA -16 view

R.VIMAL_18 view

rubika.m-14 view

B.Agalya-01 view

M.ARUNKUMARe03

P.STALIN_17 view

S.ANBUMANI_02w

B.Agalya_01 view

R.MADHUMITHAv10

M.MONIKA_11iew

1st try
100%

May 4, 2022 2:19 PM

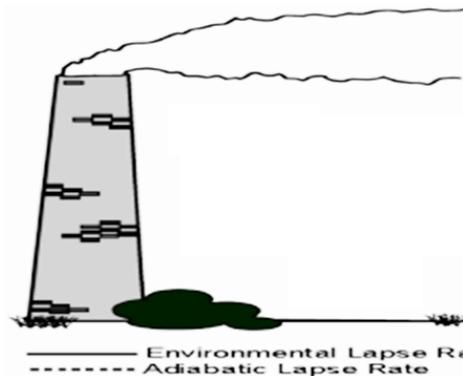
R.MADHUMITHA_10 got
10 out of 10, first try on
CE8005 / APCE - PCE
ACTIVITY 1



View Results Table

R.MADHUMITHA_10 got
1967 POINTS with these

Identify the Lofting plume pattern from the images given below:

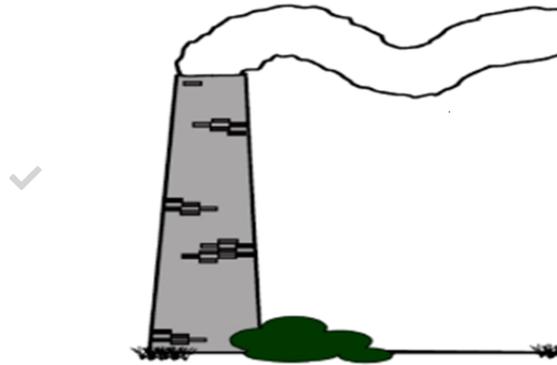


in 12.0 secs



167 POINTS

Identify the Looping plume pattern from the images given below:



🕒 in 0.9 secs

200 POINTS

_____ is a graphic tool used by meteorologists to give a succinct view of how wind speed and direction are typically distributed at a particular location.

✓ Wind rose

🕒 in 0.7 secs

200 POINTS

The temperature of the ambient air normally decreases with increases in the altitude (height), this change of temperature is called _____

✓ Lapse rate



🕒 in 0.7 secs

200 POINTS

When the inversion layer exists above the stack and as well as below the stack, the plume neither goes up nor goes down, rather, it gets confined between these two inversion layers. This type of plume pattern is called as

✓ Trapping Plume

🕒 in 0.6 secs

200 POINTS

The environment is said to be unstable & Super adiabatic lapse rate, If ?

✓ $ELR > ALR$

🕒 in 0.2 secs

200 POINTS

_____ is a synchronism of two words- smoke and fog.

✓ SMOG

🕒 in 0.0 secs

200 POINTS



Sources of air pollution are :

✓ All the Above

🕒 in 0.0 secs

200 POINTS

_____ is the process of collection of air containing pollutants both from the ambient air and from specific sources.

✓ Sampling

🕒 in 0.0 secs

200 POINTS

Pollutants which are formed when primary pollutants undergo chemical changes in the atmosphere are called as ?

✓ Secondary Pollutants

🕒 in 0.0 secs

200 POINTS



Results Table

Average score: 81%

Attempt	First	Highest first	/10	Identify the Lofting plui	The environment is saic	Identify the Looping pl	_____ is a graphi	The temperature of the	When the inversion lay	Pollutants which are fo	_____ is the r	_____ is a synchr	Sources of air pollutior
Completed													
Attempt #1	S.DIVYA_05	view	10/10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Attempt #1	R.Rengeswari_13	view	10/10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Attempt #1	B.Agalya_01	view	10/10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Attempt #1	R.MADHUMITHA_10	view	10/10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Attempt #1	F.DANIEL NAVIS_19	view	9/10	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓
Attempt #1	R.VIMAL_18	view	9/10	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓
Attempt #1	JANANI. T. S_06	view	9/10	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓
Attempt #1	M.ARUNKUMAR_03	view	9/10	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓
Attempt #1	S.ANBUMANI_02	view	9/10	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓
Attempt #1	M.MONIKA_11	view	9/10	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓
Attempt #1	KURALARASAN_09	view	8/10	✓	✓	✓	✓	✓	✗	✓	✗	✓	✓
Attempt #1	M.JAYASEELAN_08	view	8/10	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓
Attempt #1	rubika.m-14	view	8/10	✗	✓	✗	✓	✓	✓	✓	✓	✓	✓
Attempt #1	B.Agalya-01	view	8/10	✓	✗	✗	✓	✓	✓	✓	✓	✓	✓
Attempt #1	R.KARTHIKEYAN_20	view	8/10	✓	✗	✓	✓	✗	✓	✓	✓	✓	✓
Attempt #1	P.STALIN_17	view	8/10	✗	✓	✓	✓	✗	✓	✓	✓	✓	✓
Attempt #1	PSATHYA -16	view	7/10	✗	✗	✗	✓	✓	✓	✓	✓	✓	✓



Results Table

Average score: 81%

Attempt	First	Highest first	/10	Identify the Lofting plui	The environment is saic	Identify the Looping pl	_____ is a graphi	The temperature of the	When the inversion lay	Pollutants which are fo	_____ is the r	_____ is a synchr	Sources of air pollutior
Completed													
Attempt #1	S.DIVYA_05	view	10/10										
Attempt #1	R.Rengeswari_13	view	10/10										
Attempt #1	B.Agalya_01	view	10/10										
Attempt #1	R.MADHUMITHA_10	view	10/10										
Attempt #1	F.DANIEL NAVIS_19	view	9/10										
Attempt #1	R.VIMAL_18	view	9/10										
Attempt #1	JANANI. T. S_06	view	9/10										
Attempt #1	M.ARUNKUMAR_03	view	9/10										
Attempt #1	S.ANBUMANI_02	view	9/10										
Attempt #1	M.MONIKA_11	view	9/10										
Attempt #1	KURALARASAN_09	view	8/10										
Attempt #1	M.JAYASEELAN_08	view	8/10										
Attempt #1	rubika.m-14	view	8/10										
Attempt #1	B.Agalya-01	view	8/10										
Attempt #1	R.KARTHIKEYAN_20	view	8/10										
Attempt #1	P.STALIN_17	view	8/10										
Attempt #1	PSATHYA -16	view	7/10										



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DEPARTMENT OF CIVIL ENGINEERING

**GI8014 -
GEOGRAPHIC
INFORMATION SYSTEM**

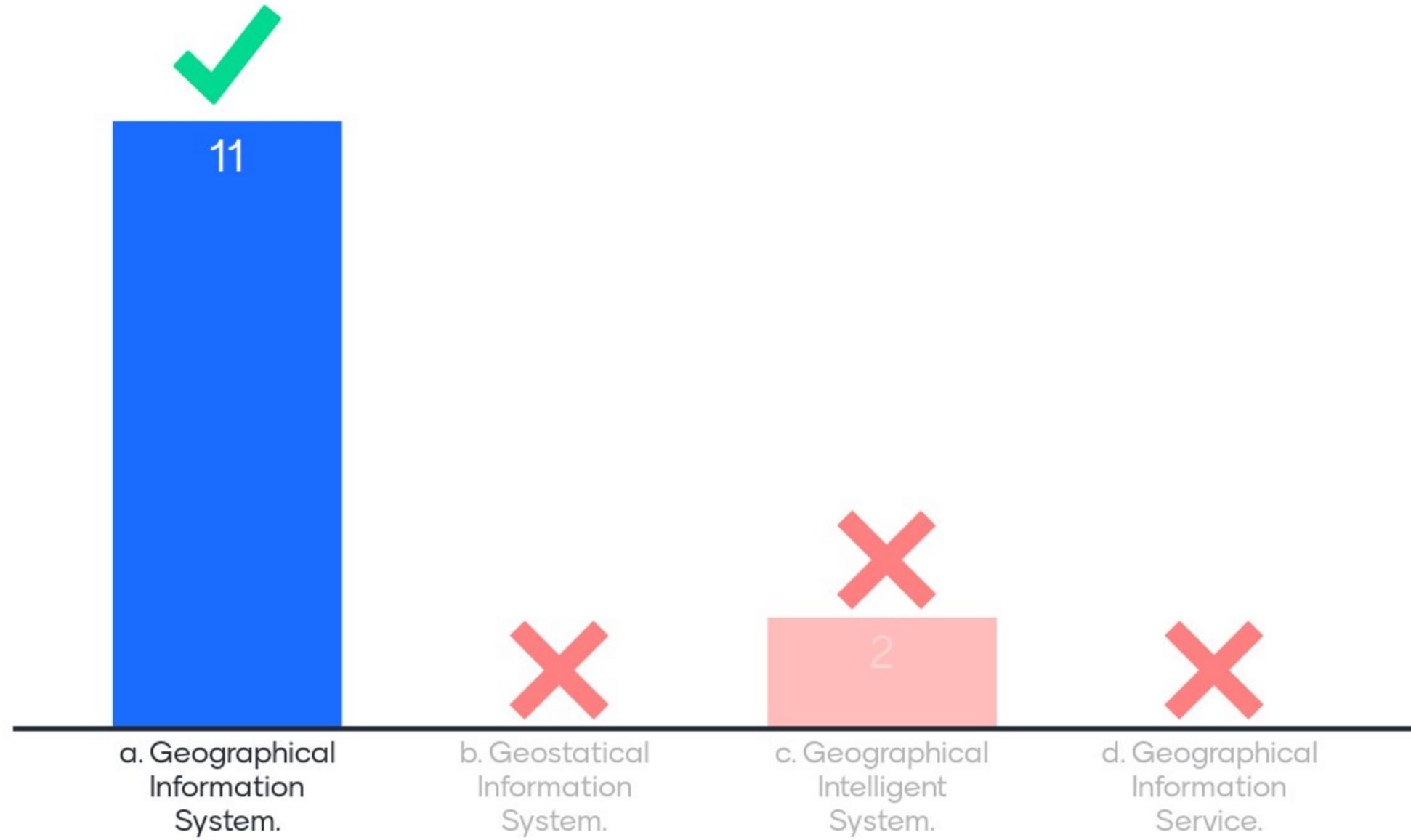
III YEAR CIVIL / V SEM

PCE ACTIVITY - ONLINE QUIZ

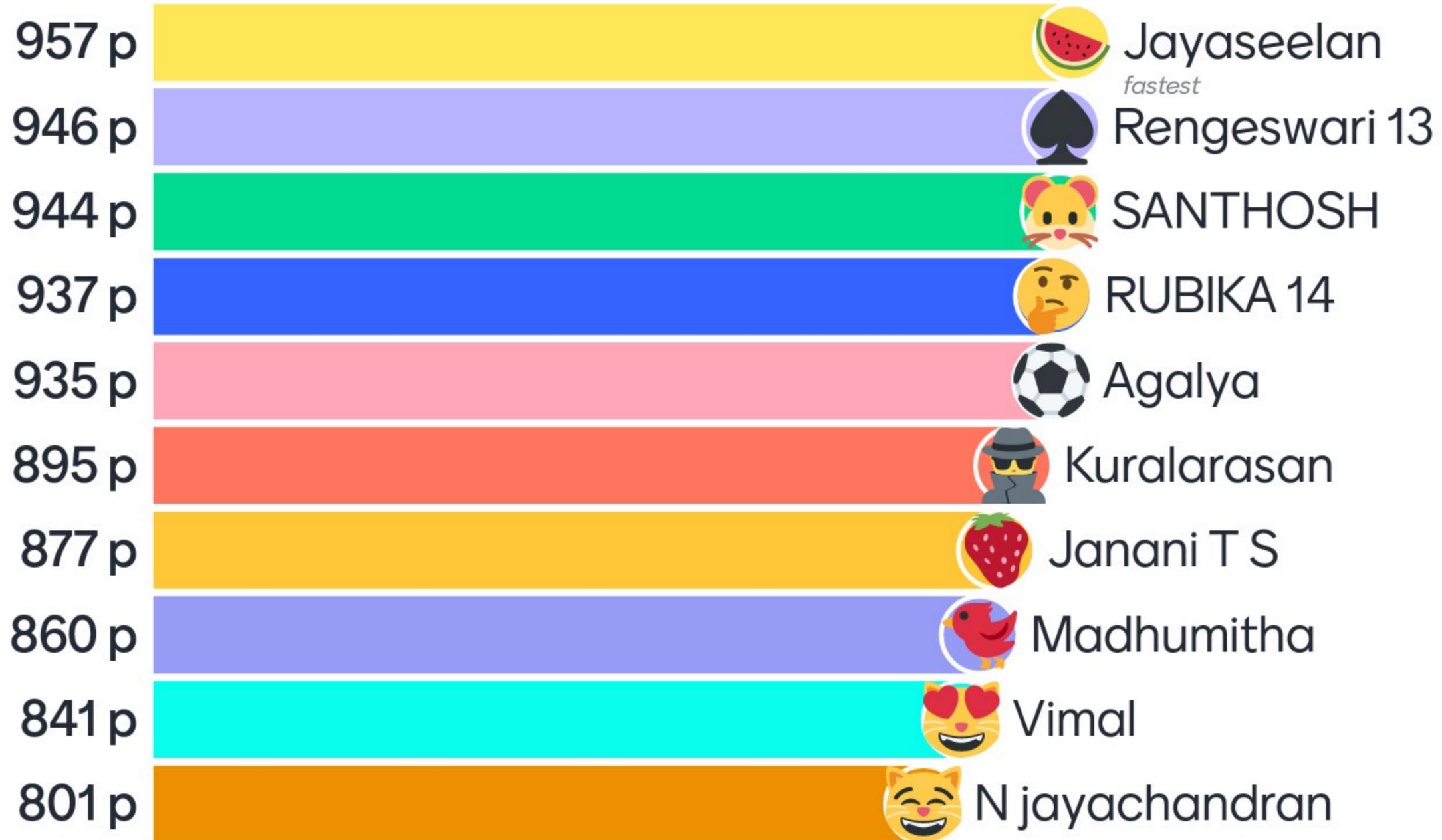
**STAFF INCHARGE
ARUN.K
AP/CIVIL**

PCE ACTIVITY - ONLINE QUIZ

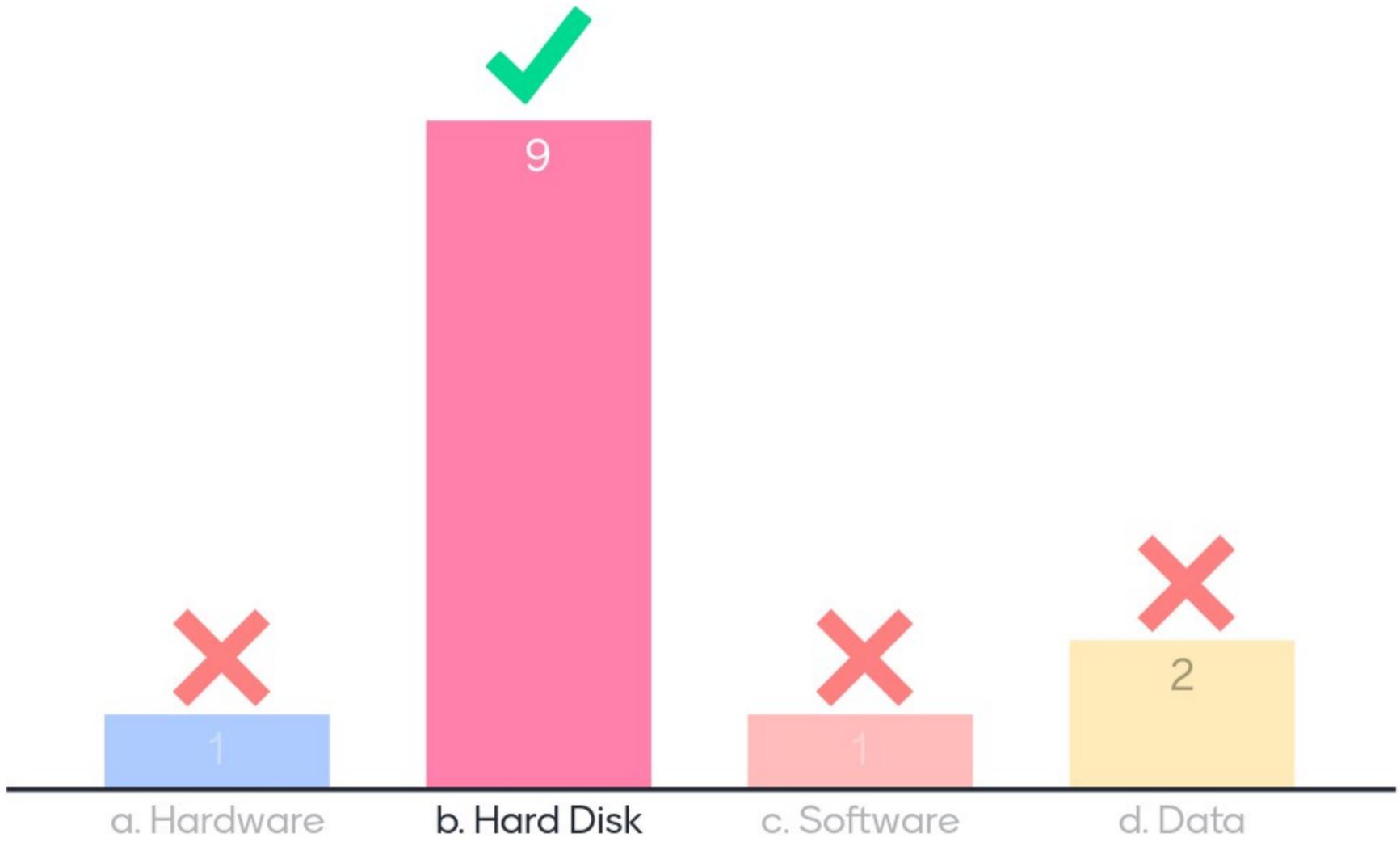
GIS stands for ___



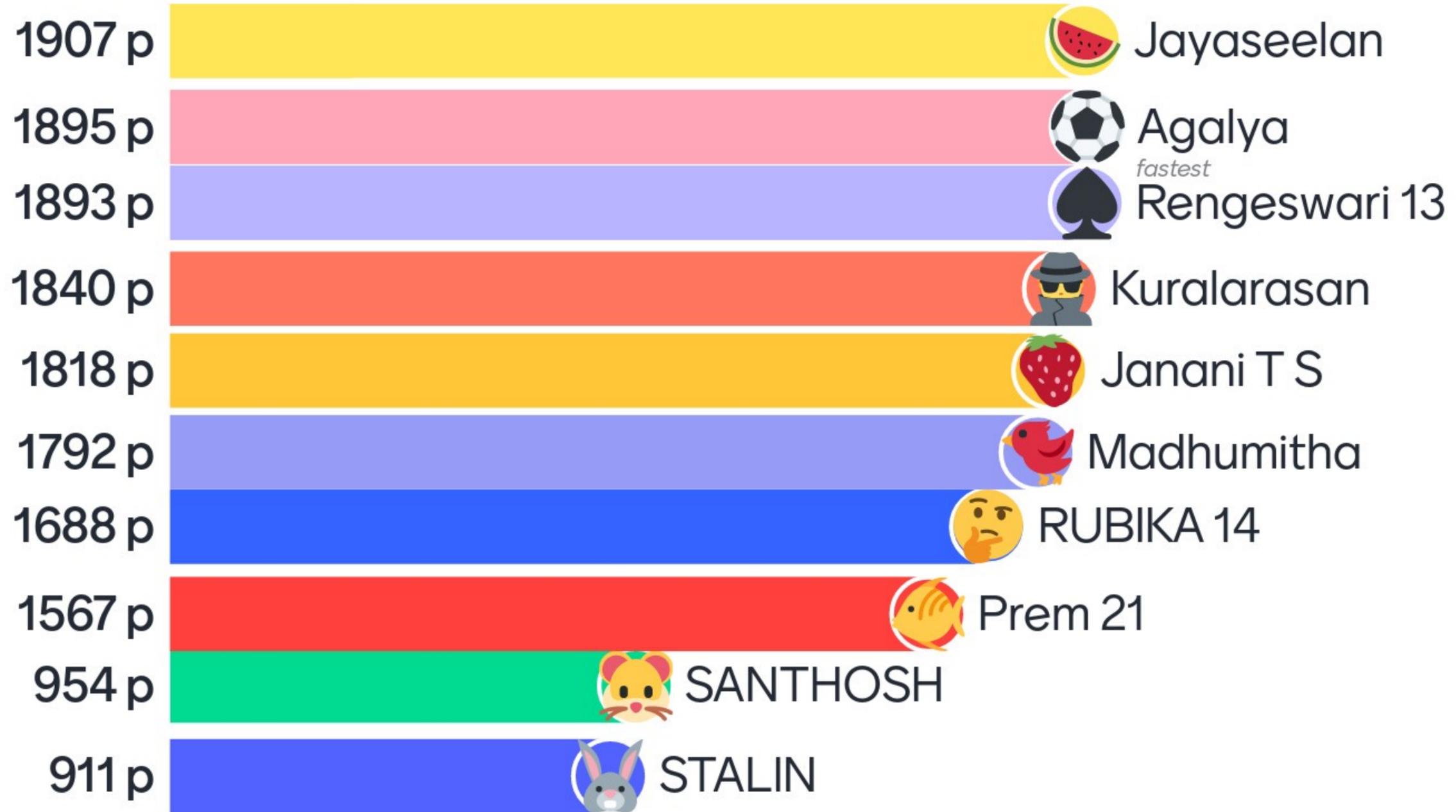
Leaderboard



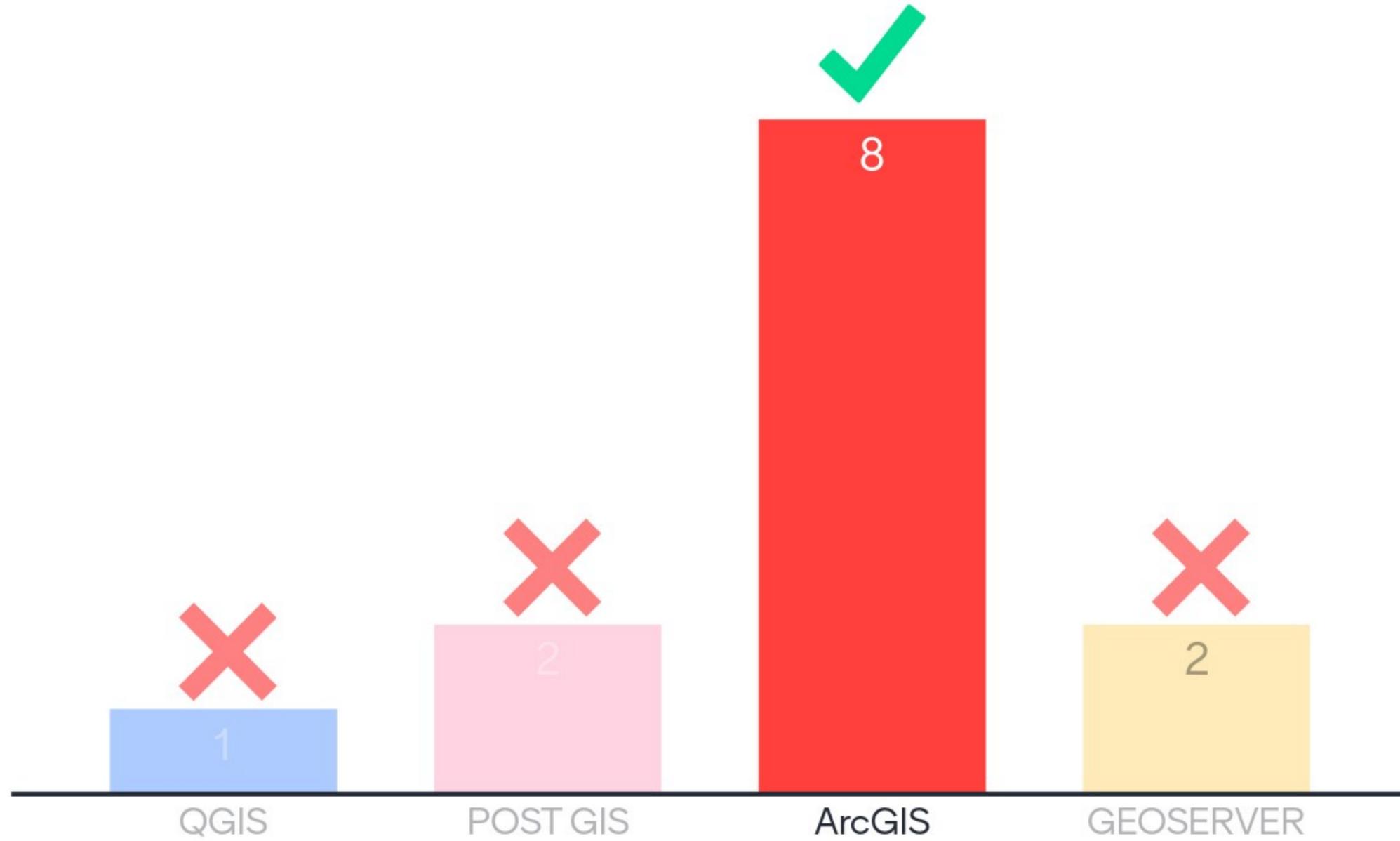
Which of the following is not a component of GIS?



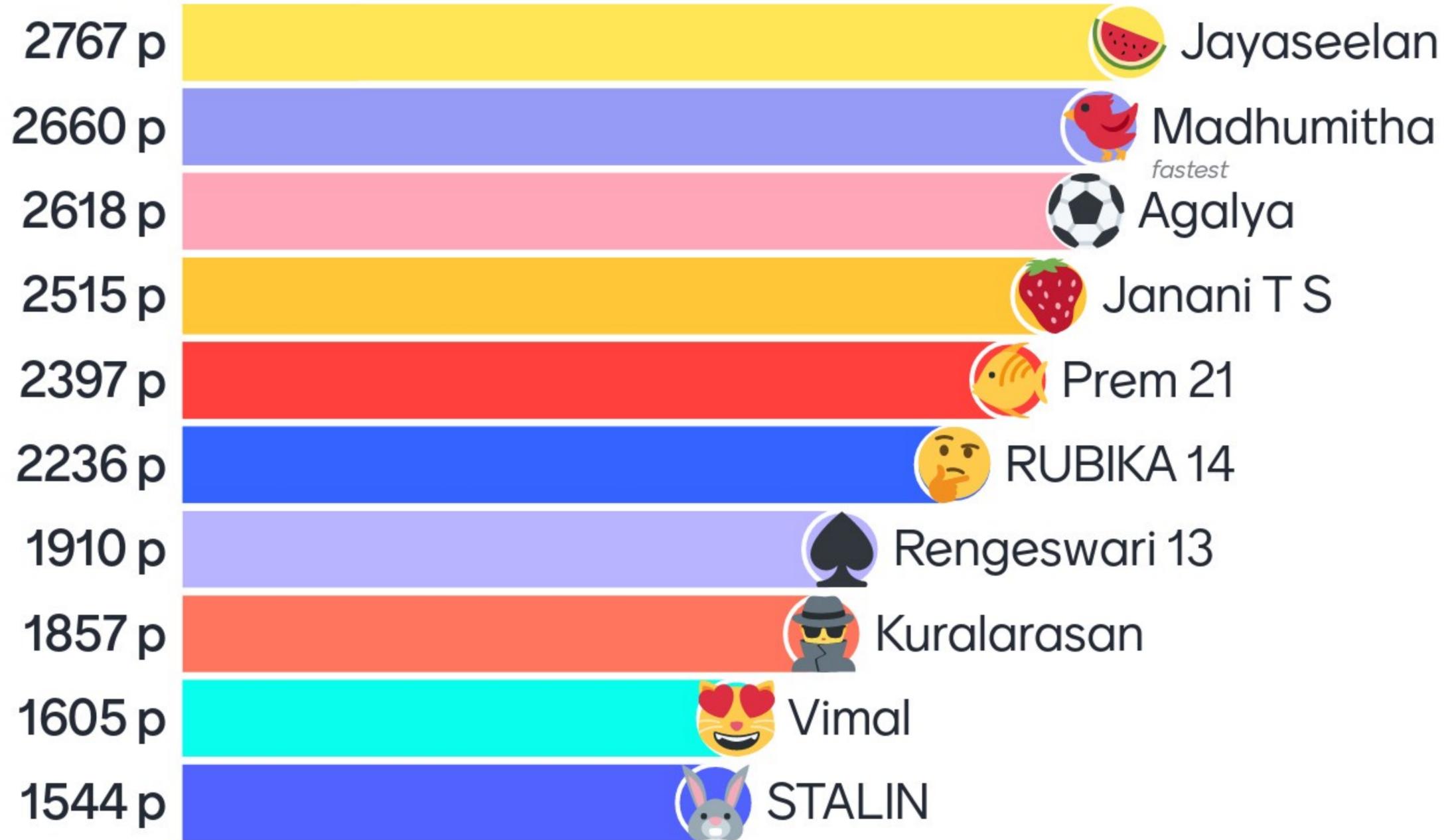
Leaderboard



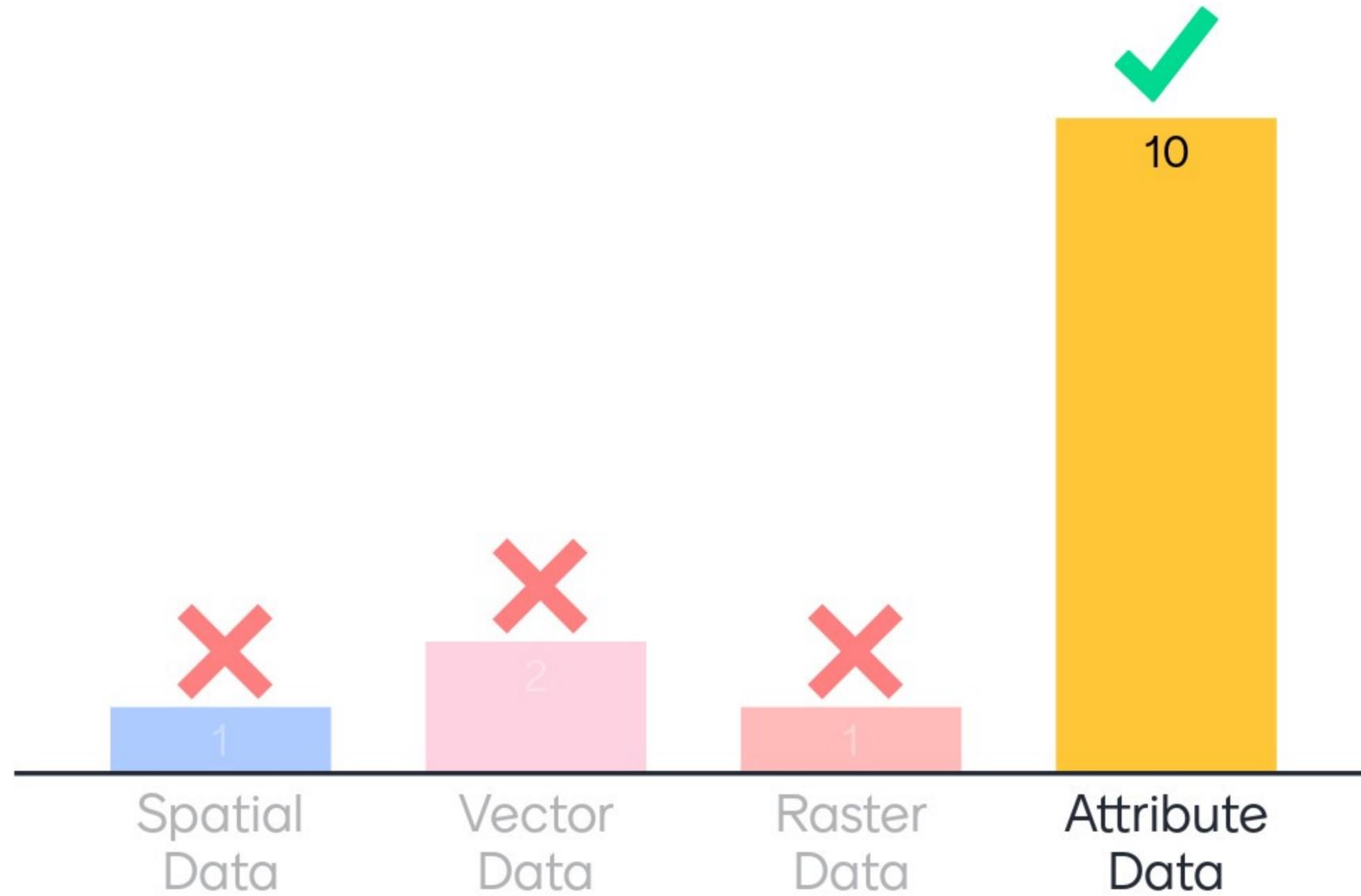
GIS software owned by ESRI is ___



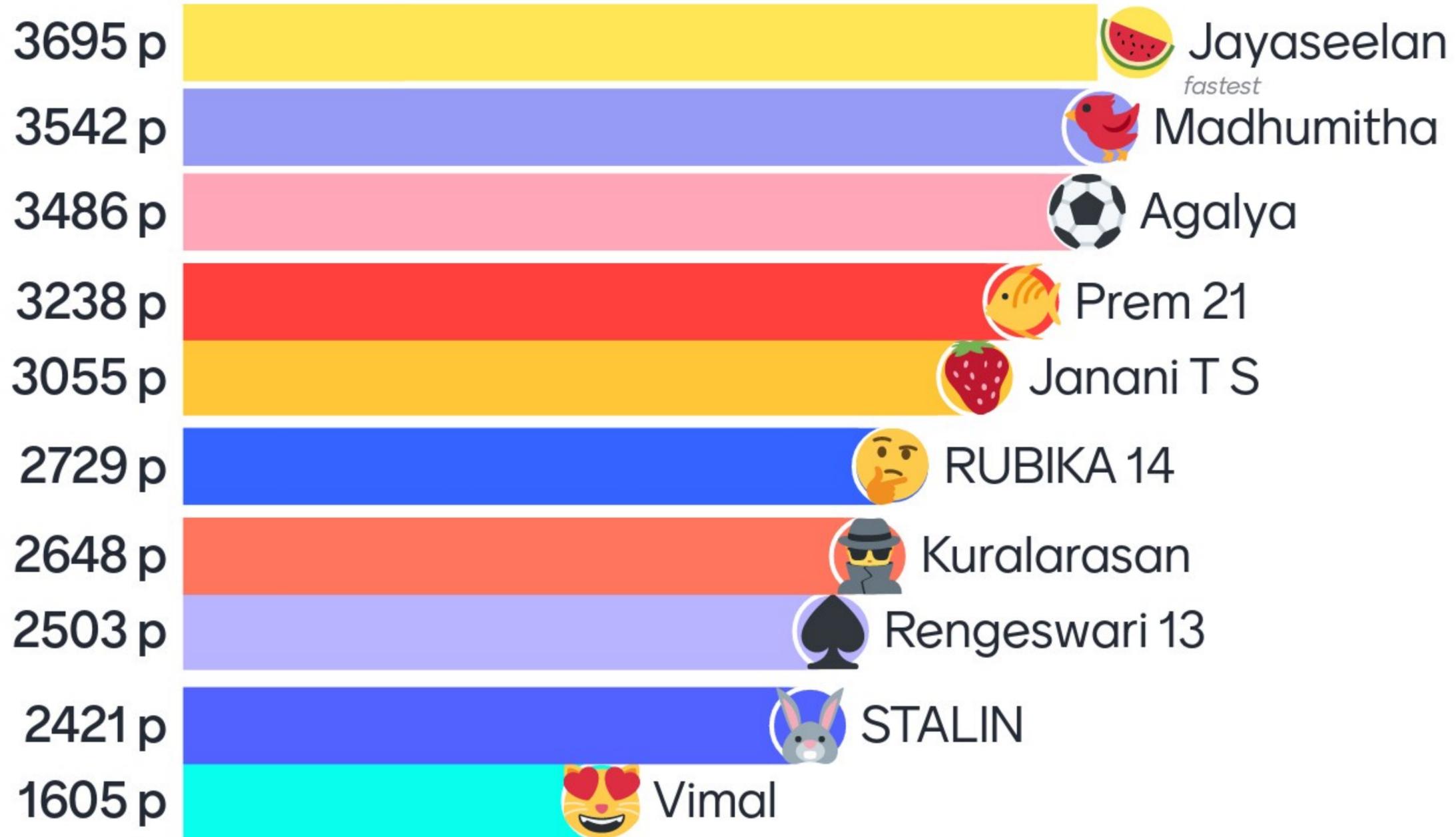
Leaderboard



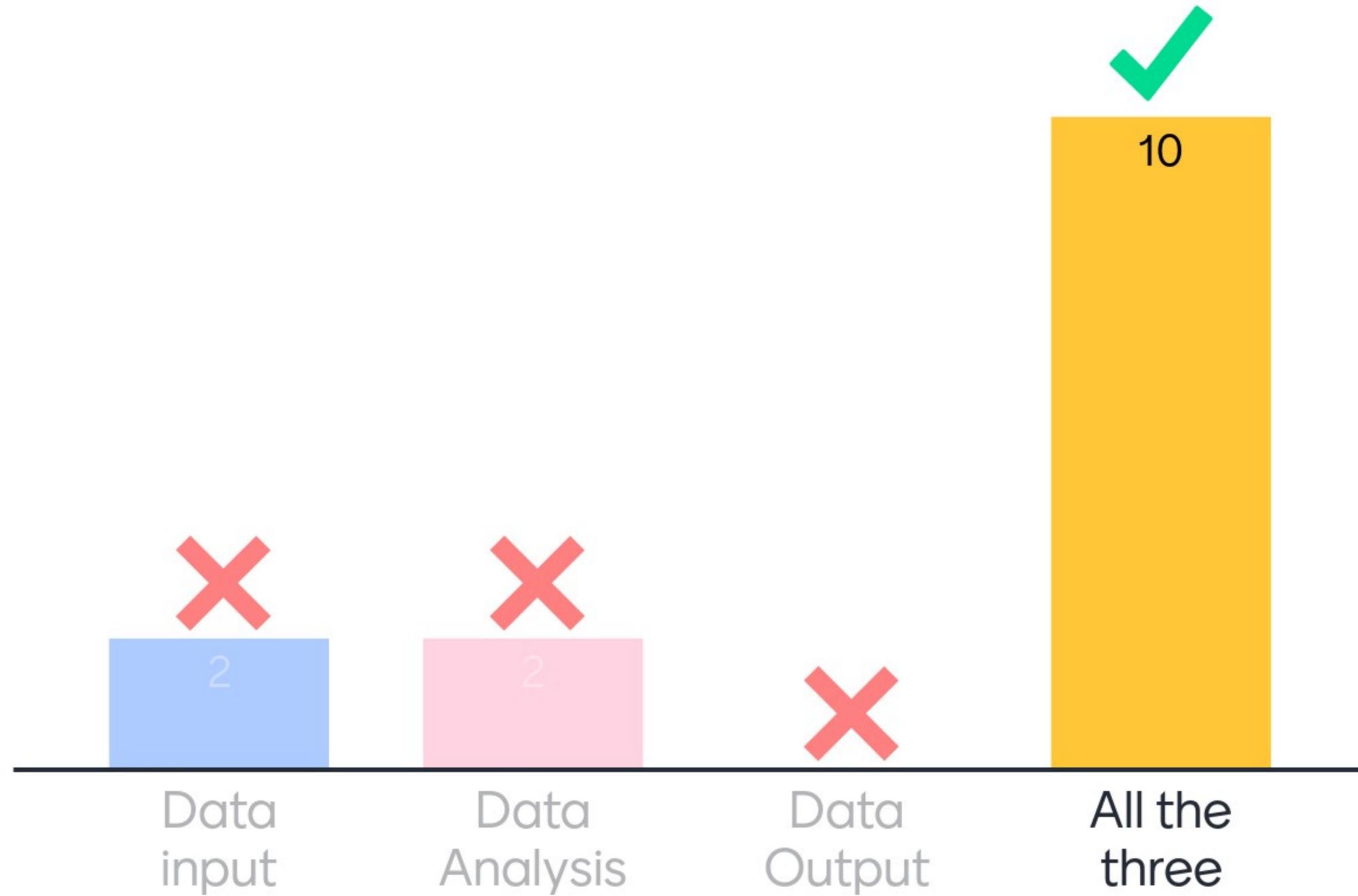
This data is also called as Non-Spatial Data _____



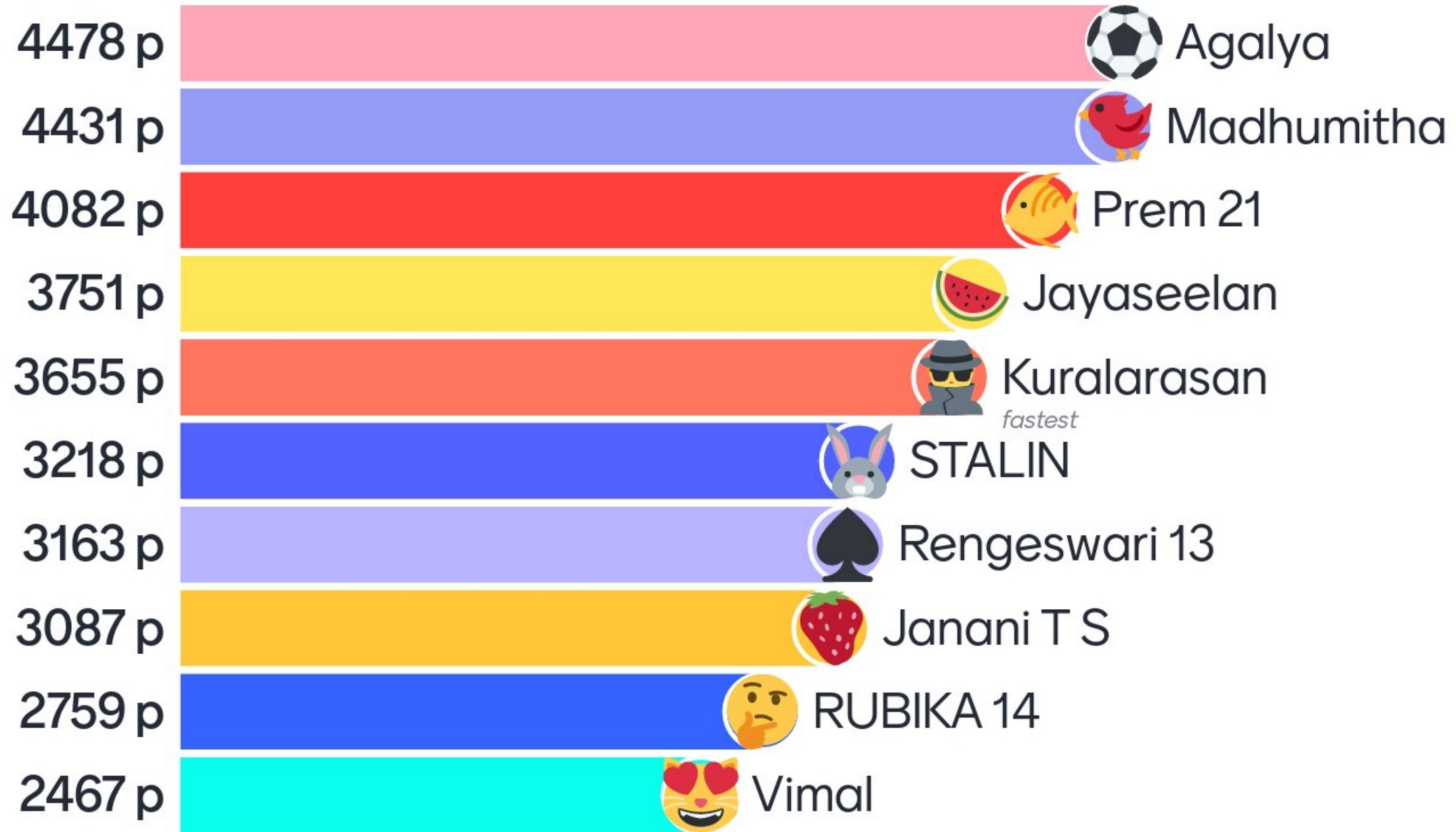
Leaderboard



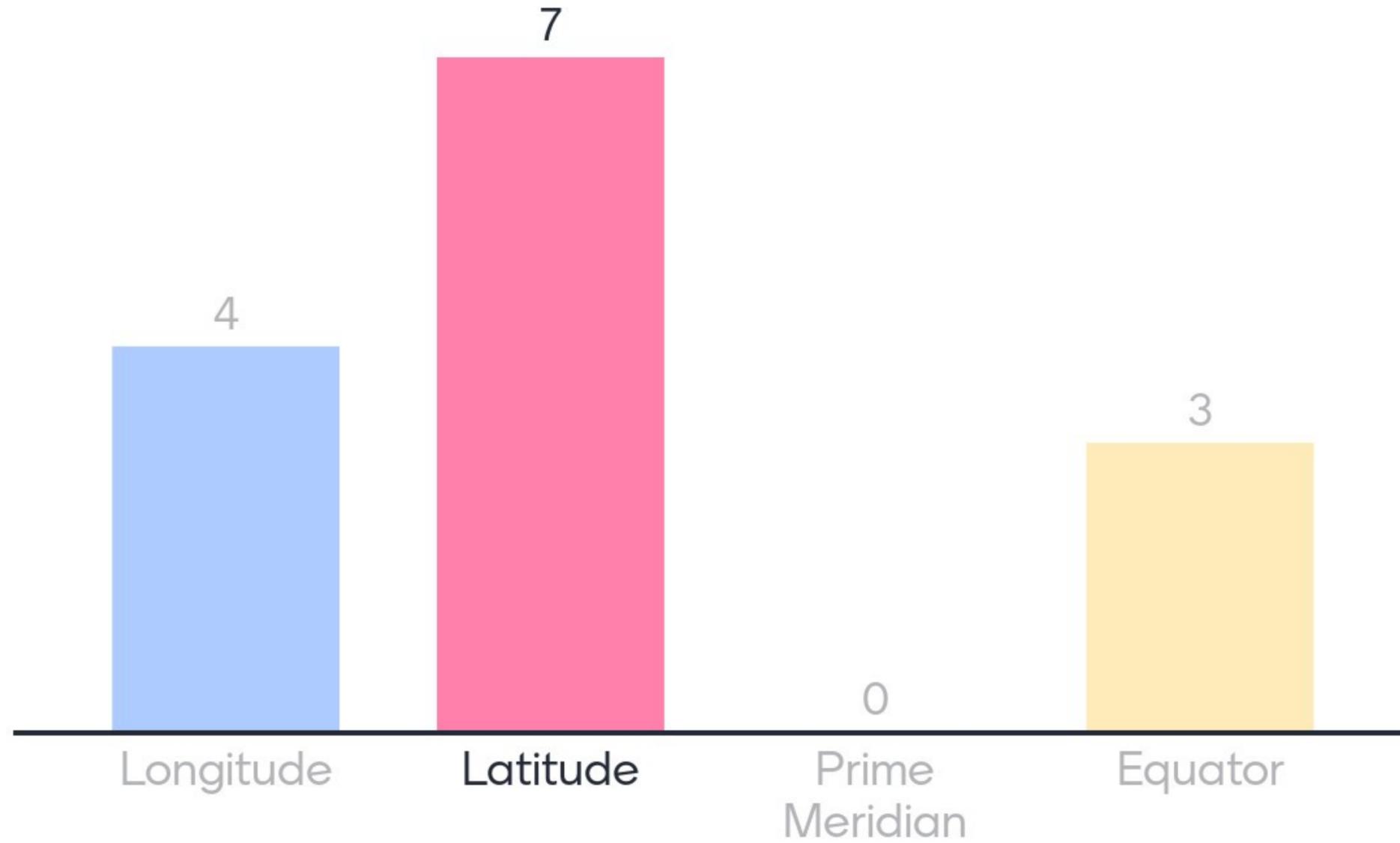
Which of the following is a function of GIS?



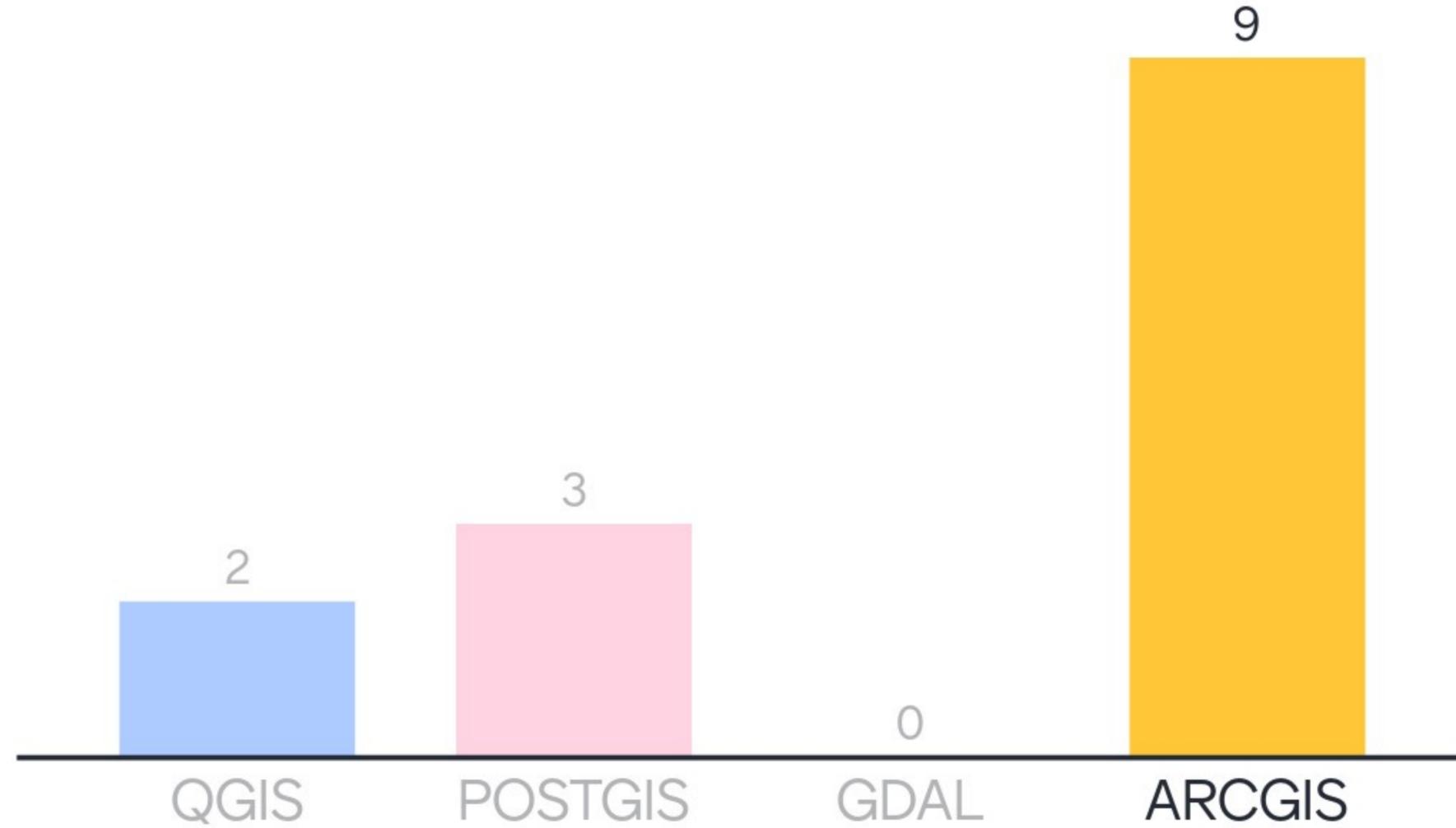
Leaderboard



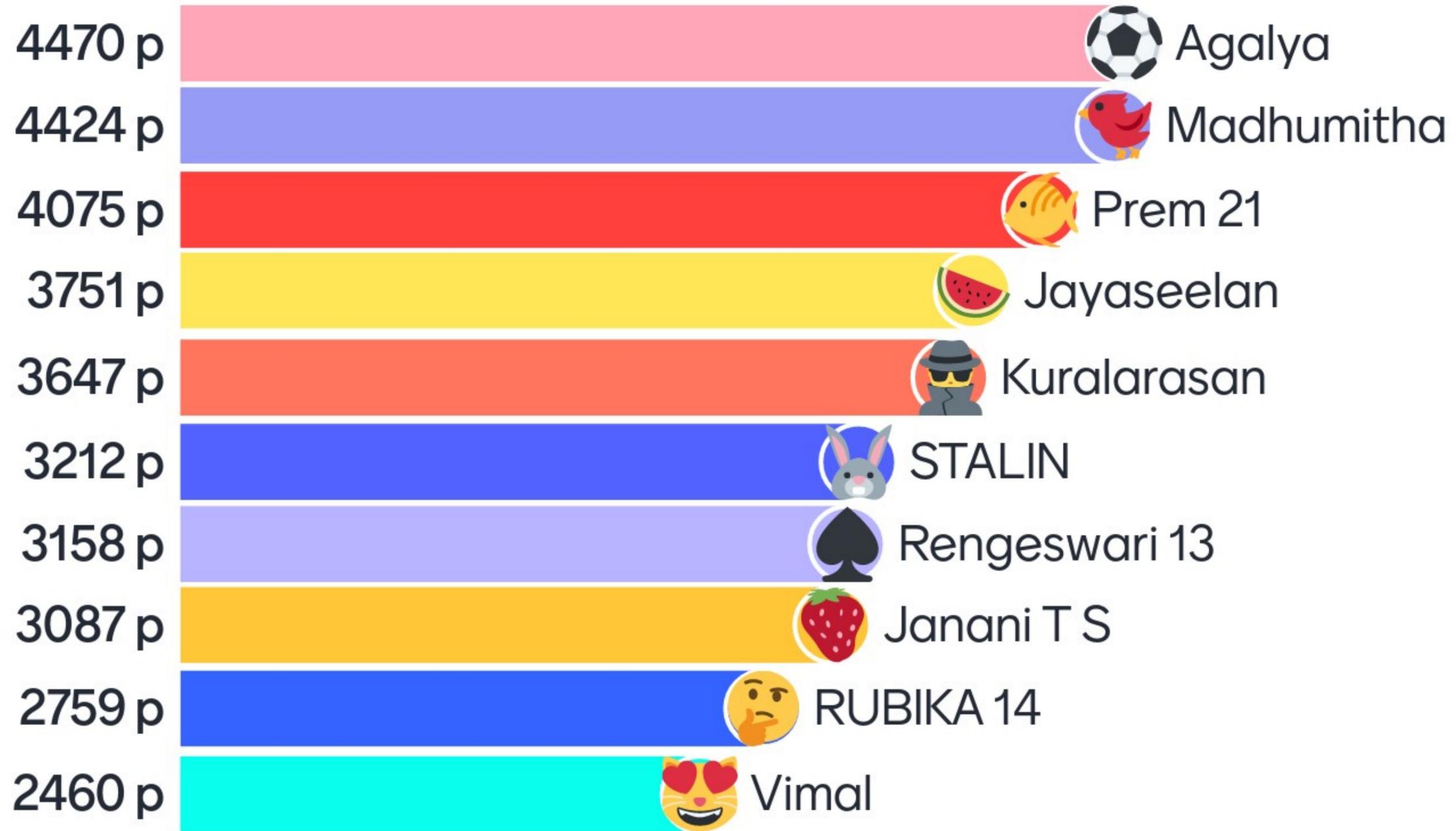
Imaginary lines that run horizontally around the globe is called _____



Which of the following is a Proprietary software?



Leaderboard





KINGS
COLLEGE OF ENGINEERING



THANK YOU

