Sports and Performance Science Portfolio

Christian Monteferrante, MSc., CSCS

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- Project 1: Volleyball anual report – National University of La Matanza
  - Tools: Excell, Powerpoint, Jamovi (R)
  - Dataset: Real volleyball data

- Project 2: Edith Cowan University – Master of Exercise Science
  - Tools: Excel, Visual Basic
  - Dataset: ECU – Monitoring unit assignment

- Project 3: Big Data – Data Science course
  - Tools: Google Sheets, Google Looker Studio, Python, Deep Note
  - Datasets: “Services”, “Internet”, “Exams”

Project 1: University of La Matanza 2023 Anual Report

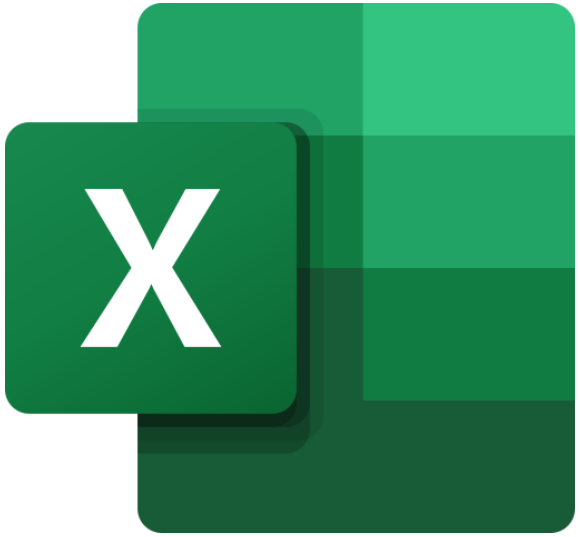
Volleyball D1 – Female

Christian Monteferrante, MSc., CSCS

Universidad Nacional de La Matanza

UNLaM

Personal Report



Excel

Powerpoint

Personal Report

1RM Estimated from Multiple Max Repetitions (xRM) - April to November 2023

Player

Assistance
92%

Bodyweight
66.7 kg ↓ -0.80

The relative index referes to the relation between bodyweight (bw) and weight lifted. An index of 1 indicates 100% bw, 1.5, 150%bw

If any value is equal to 0, it means that the exercise was not tested

The last test was performed at the end of the Metropolitan Tournament and it corresponded to a maintenance phase

Absolute Values for Estimated 1RM

Back Squat	Deadlift	Lat Pulldown	Press
82.7 Kg ↓ -2.9	103.6 Kg ↑ 7.9	66.7 Kg ↓ -3.1	34.4 Kg ↑ 1.8

Pull Ups: 0.00

Relative to Bodyweight Values

Backroom

Noviembre 2023

				Fuerza							
			Sent		Tiron		Despegue		Press		
Atleta	PC kg	S 1RM	S rel	TP 1RM	TP rel	D 1RM	D rel	P 1RM	P rel	Dominada	Asistencia
C	60.2				0.00				0.00	no	77%
C	66.7	82.7	1.24	66.7	1.00	103.6	1.55	34.4	0.52	si	92%
D	69.9	88.0	1.26	76	1.09	111.6	1.60	36.4	0.52	si	99%
G	72	91.9	1.28	55.6	0.77	90	1.25	34.0	0.47	no	76%
L	61.3		0.00		0.00		0.00		0.00		78%
L	64.4	81.5	1.27	74.9	1.16	87.9	1.36	36.1	0.56	si	91%
M	59.1	71.0	1.20	59.8	1.01	88	1.49	31.3	0.53	no	98%
R	61.3	83.3	1.36	64.5	1.05	92.4	1.51	30.1	0.49	si	86%
S	61.2	100.6	1.64	79.8	1.30	98.3	1.61	40.0	0.65	si	97%
S	89	103.5	1.16	73.7	0.83	151.8	1.71	39.2	0.44	no	88%
V	79.5	104.4	1.31	81.4	1.02	132.7	1.67	40.0	0.50	no	94%
F	72.5	98.9	1.36	84.3	1.16	111.1	1.53	40.0	0.55	si	87%
V	63.9	88.4	1.38	63.9	1.00	83.3	1.30	34.9	0.55	si	
M	79.5	103.3	1.30	77.8	0.98	105.3	1.32	33.3	0.42	no	90%

Personal Report - Anthropometrics

Atlhete:

mucle-bone index

Ideally, we are looking for the green zone and as far as the red zone as possible. The cut-off point for female university volleyball players is 3.8 (arbitrary units)

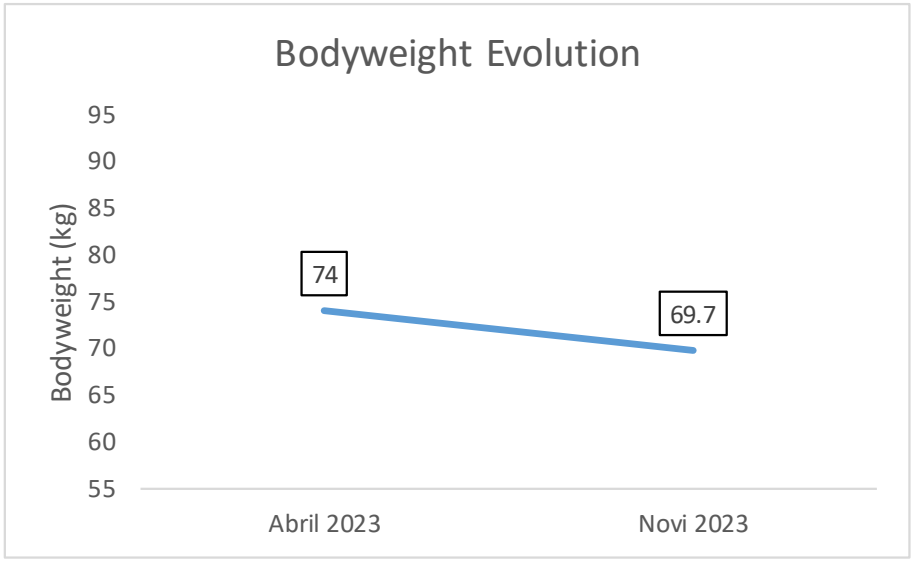
sum of 6 skinfolds

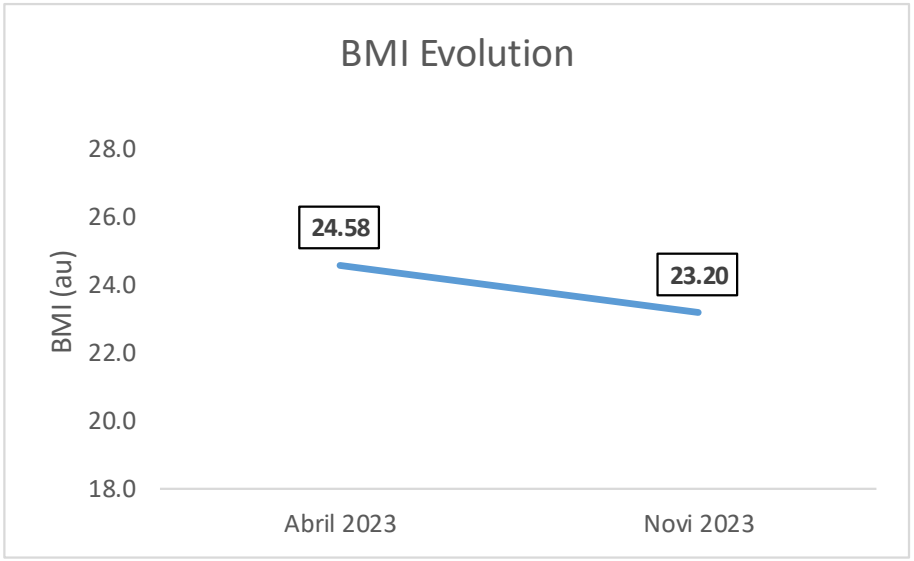
In this case, we aim to be below the 85 milimeters mark, indicated by the green zone

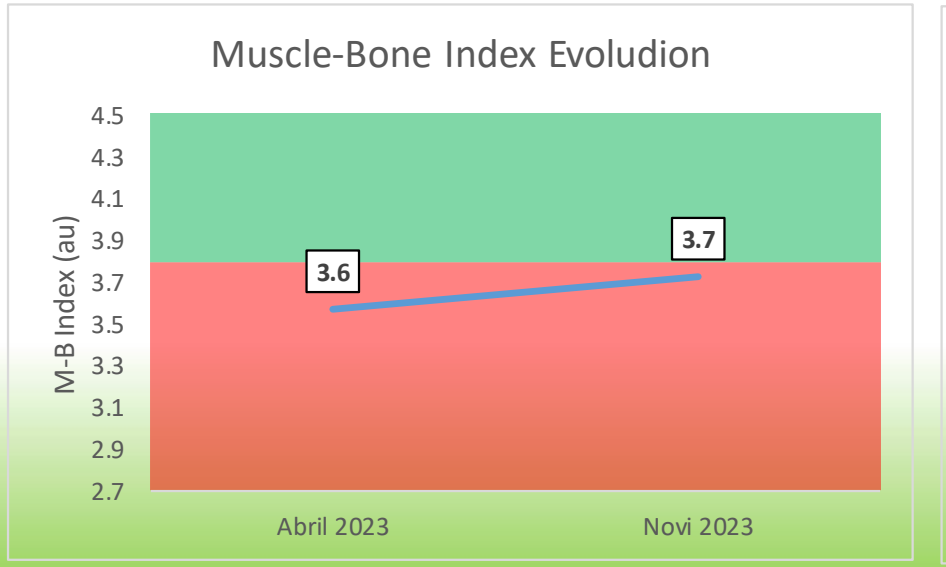
Important!!!

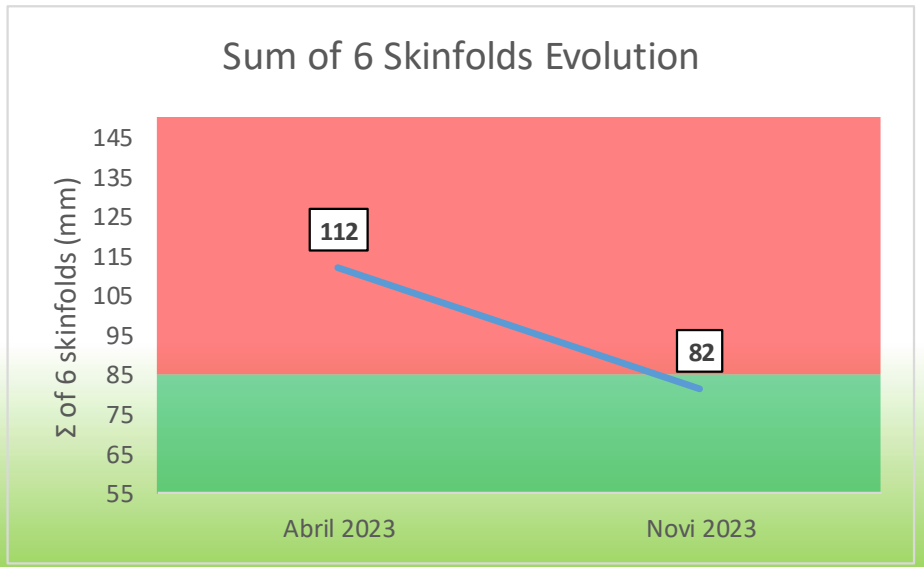
None of the markers indicated on the graphs is a predictor of performance

Anthropometric Data Evolution during 2023

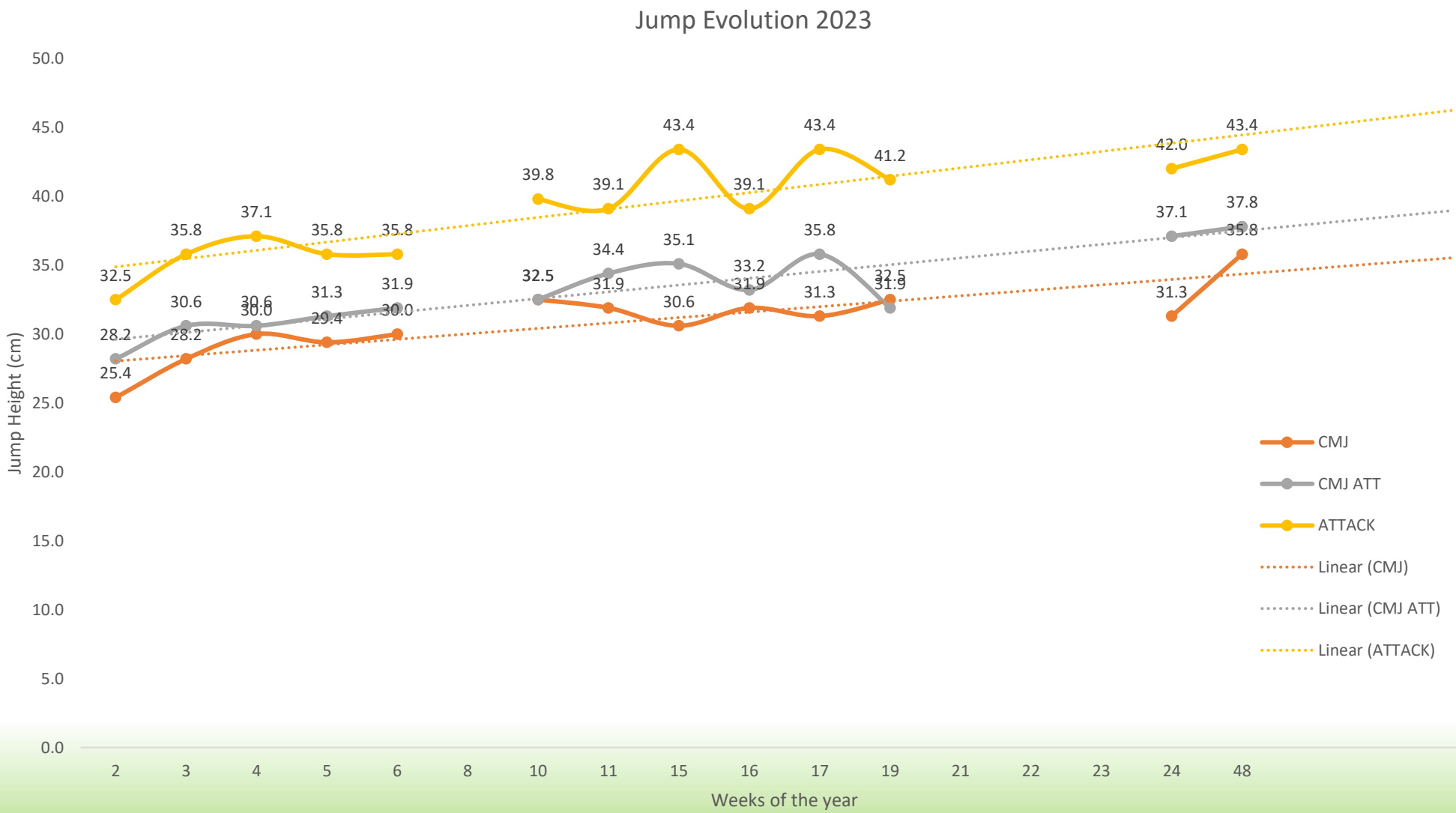






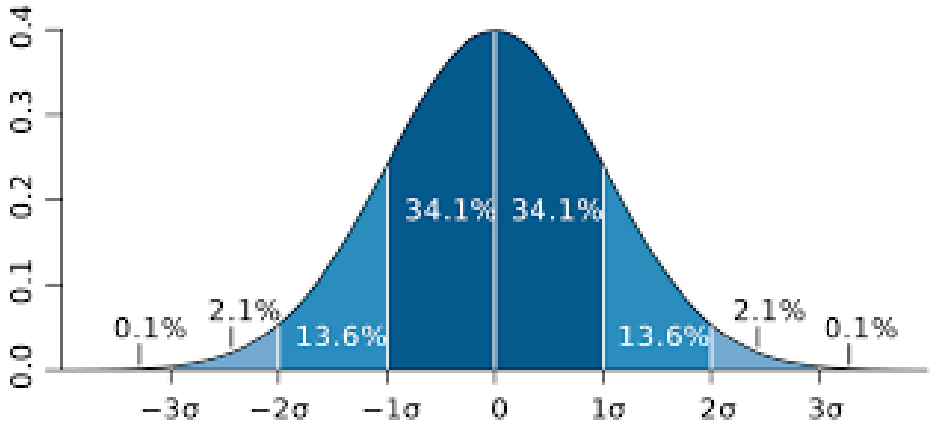


Personal Report - Jumps



Z-Scores

Z-score is a statistical measurement that describes a value's relationship to the mean of a group of values. Z-score is measured in terms of standard deviations from the mean. If a Z-score is 0, it indicates that the data point's score is identical to the mean score.

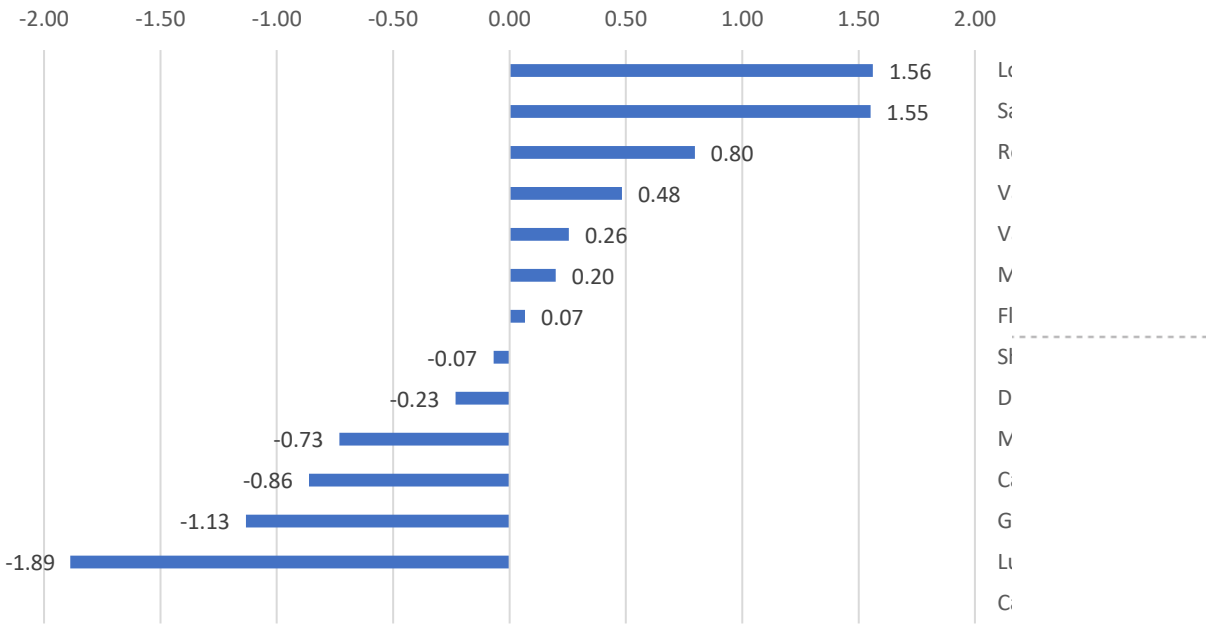


It is important for us so we can understand where our players are situated in relation to the group. On the following cases, the relative-to-bodyweight values were compared for the selected exercises.

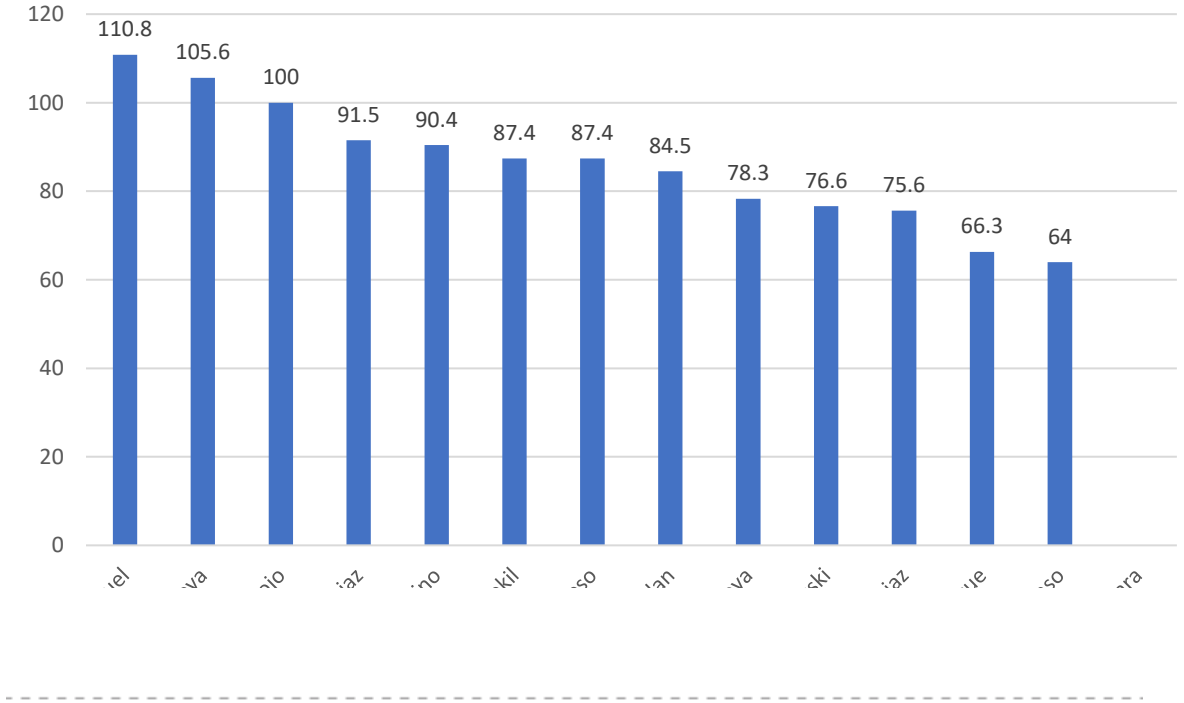
UNLaM

Squat

Relative Z-Score - Squat



Estimated 1RM - Squat



UNLaM

Backroom

Peso Corporal

Testeo	Atleta	PC
1ro - Abril	C	55.00
1ro - Abril	C	69.20
1ro - Abril	D	74.00
1ro - Abril	G	68.50
1ro - Abril	L	59.40
1ro - Abril	L	64.20
1ro - Abril	M	56.90
1ro - Abril	R	61.40
1ro - Abril	S	63.70
1ro - Abril	S	100.00
1ro - Abril	S	88.20
1ro - Abril	F	71.50
1ro - Abril	V	60.90
1ro - Abril	V	77.80
1ro - Abril	M	76.20
2do - Junio	C	58.00
2do - Junio	C	67.50
2do - Junio	D	71.50
2do - Junio	G	68.90
2do - Junio	L	59.40
2do - Junio	L	64.50
2do - Junio	M	57.50
2do - Junio	R	61.90
2do - Junio	S	61.50
2do - Junio	S	89.00
2do - Junio	V	79.90
2do - Junio	F	72.40
2do - Junio	V	60.70
2do - Junio	M	78.00
3ro - Agosto	C	58.00
3ro - Agosto	C	67.50
3ro - Agosto	D	71.50
3ro - Agosto	G	68.90
3ro - Agosto	L	59.40
3ro - Agosto	L	64.50
3ro - Agosto	M	57.50
3ro - Agosto	R	61.90
3ro - Agosto	S	61.50
3ro - Agosto	S	89.00
3ro - Agosto	V	79.90
3ro - Agosto	F	72.40
3ro - Agosto	V	60.70
3ro - Agosto	M	78.00
4to - Noviembre	C	60.20
4to - Noviembre	C	66.70
4to - Noviembre	D	69.90
4to - Noviembre	G	68.90
4to - Noviembre	L	61.30
4to - Noviembre	L	64.40
4to - Noviembre	M	59.10
4to - Noviembre	R	61.30
4to - Noviembre	S	61.20
4to - Noviembre	S	89.00
4to - Noviembre	V	79.50
4to - Noviembre	F	72.50

Sentadillas

Testeo	Atleta	S 1RM	S rel
1ro - Abril	C		
1ro - Abril	C	**70.70**	1.23
1ro - Abril	D	**90.70**	1.15
1ro - Abril	G	**78.80**	1.35
1ro - Abril	L	**80.00**	1.02
1ro - Abril	L	**65.20**	0.00
1ro - Abril	M		
1ro - Abril	R	**69.80**	1.42
1ro - Abril	S	**90.40**	0.78
1ro - Abril	S	**77.90**	1.21
1ro - Abril	S	**106.60**	1.09
1ro - Abril	F	**77.90**	1.29
1ro - Abril	V	**78.30**	1.18
1ro - Abril	V	**91.80**	0.00
1ro - Abril	M		
2do - Junio	C		1.13
2do - Junio	C	**76.60**	1.22
2do - Junio	D	**87.40**	1.10
2do - Junio	G	**75.60**	1.47
2do - Junio	L	**87.40**	0.99
2do - Junio	L	**64.00**	1.15
2do - Junio	M	**66.30**	1.37
2do - Junio	R	**84.50**	1.47
2do - Junio	S	**90.40**	1.24
2do - Junio	S	**110.80**	1.32
2do - Junio	V	**105.60**	1.26
2do - Junio	F	**91.50**	1.29
2do - Junio	V	**78.30**	1.28
2do - Junio	M	**100.00**	0.00
3ro - Agosto	C		1.27
3ro - Agosto	C	**85.60**	1.26
3ro - Agosto	D	**90.00**	1.35
3ro - Agosto	G	**93.30**	2.16
3ro - Agosto	L	**128.10**	0.99
3ro - Agosto	L	**64.00**	1.34
3ro - Agosto	M	**77.20**	1.37
3ro - Agosto	R	**84.50**	1.47
3ro - Agosto	S	**90.40**	1.29
3ro - Agosto	S	**115.00**	1.32
3ro - Agosto	V	**105.60**	1.37
3ro - Agosto	F	**98.90**	1.44
3ro - Agosto	V	**87.20**	1.48
3ro - Agosto	M	**115.20**	0.00
4to - Noviembre	C		1.24
4to - Noviembre	C	**82.70**	1.26
4to - Noviembre	D	**88.00**	1.33
4to - Noviembre	G	**91.90**	0.00
4to - Noviembre	L		1.27
4to - Noviembre	L	**81.50**	1.20
4to - Noviembre	M	**71.00**	1.36
4to - Noviembre	R	**83.30**	1.64
4to - Noviembre	S	**100.60**	1.16
4to - Noviembre	S	**103.50**	1.31
4to - Noviembre	V	**104.40**	1.36
4to - Noviembre	F	**98.90**	1.38

Tiron Palmar

Testeo	Atleta	TP 1RM	TP rel
1ro - Abril	C	**53.30**	1.06
1ro - Abril	C	**73.30**	0.99
1ro - Abril	D	**73.30**	0.76
1ro - Abril	G	**52.30**	1.07
1ro - Abril	L	**63.30**	0.93
1ro - Abril	L	**60.00**	0.95
1ro - Abril	M	**54.20**	0.85
1ro - Abril	R	**52.00**	1.26
1ro - Abril	S	**80.00**	0.65
1ro - Abril	S	**65.20**	0.81
1ro - Abril	S	**71.40**	1.01
1ro - Abril	F	**72.50**	1.07
1ro - Abril	V	**65.20**	1.06
1ro - Abril	V	**82.30**	0.00
1ro - Abril	M		
2do - Junio	C	**56.30**	1.03
2do - Junio	C	**69.80**	1.01
2do - Junio	D	**72.30**	0.81
2do - Junio	G	**55.60**	1.14
2do - Junio	L	**67.90**	1.12
2do - Junio	L	**72.50**	0.94
2do - Junio	M	**54.20**	1.02
2do - Junio	R	**63.40**	1.47
2do - Junio	S	**90.40**	0.78
2do - Junio	S	**69.80**	1.06
2do - Junio	V	**84.40**	1.20
2do - Junio	F	**86.90**	1.01
2do - Junio	V	**61.10**	0.89
2do - Junio	M	**69.80**	0.97
3ro - Agosto	C	**56.30**	1.03
3ro - Agosto	C	**69.80**	1.05
3ro - Agosto	D	**75.30**	0.81
3ro - Agosto	G	**55.60**	1.14
3ro - Agosto	L	**67.90**	1.12
3ro - Agosto	L	**72.50**	0.94
3ro - Agosto	M	**54.20**	1.02
3ro - Agosto	R	**63.40**	1.47
3ro - Agosto	S	**90.40**	0.78
3ro - Agosto	S	**69.80**	1.06
3ro - Agosto	V	**84.40**	1.16
3ro - Agosto	F	**84.20**	1.05
3ro - Agosto	V	**63.90**	0.89
3ro - Agosto	M	**69.80**	0.00
4to - Noviembre	C		1.00
4to - Noviembre	C	**66.70**	1.09
4to - Noviembre	D	**76.00**	0.81
4to - Noviembre	G	**55.60**	0.00
4to - Noviembre	L		1.16
4to - Noviembre	L	**74.90**	1.01
4to - Noviembre	M	**59.80**	1.05
4to - Noviembre	R	**64.50**	1.30
4to - Noviembre	S	**79.80**	0.83
4to - Noviembre	S	**73.70**	1.02
4to - Noviembre	V		1.16
4to - Noviembre	F	**84.30**	1.00

Despegue

Testeo	Atleta	D 1RM	D rel
1ro - Abril	C		
1ro - Abril	C	**80.30**	0.00
1ro - Abril	D		
1ro - Abril	G		
1ro - Abril	L	**108.00**	1.37
1ro - Abril	L	**88.00**	1.13
1ro - Abril	M	**64.40**	1.37
1ro - Abril	R	**84.40**	1.50
1ro - Abril	S	**95.60**	0.00
1ro - Abril	S		
1ro - Abril	S	**115.20**	1.20
1ro - Abril	F	**85.90**	1.06
1ro - Abril	V	**64.40**	1.52
1ro - Abril	V	**118.20**	0.00
1ro - Abril	M		
2do - Junio	C		1.27
2do - Junio	C	**85.50**	1.35
2do - Junio	D	**96.60**	0.00
2do - Junio	G		1.82
2do - Junio	L	**108.00**	1.42
2do - Junio	L	**91.80**	1.35
2do - Junio	M	**77.40**	1.51
2do - Junio	R	**93.30**	1.57
2do - Junio	S	**96.40**	1.50
2do - Junio	S	**133.30**	1.81
2do - Junio	V	**144.90**	1.51
2do - Junio	F	**109.30**	1.19
2do - Junio	V	**72.30**	0.00
2do - Junio	M		0.00
3ro - Agosto	C		1.42
3ro - Agosto	C	**95.70**	1.63
3ro - Agosto	D	**116.90**	1.22
3ro - Agosto	G	**84.40**	1.94
3ro - Agosto	L	**115.20**	1.42
3ro - Agosto	L	**91.80**	1.54
3ro - Agosto	M	**88.60**	1.51
3ro - Agosto	R	**93.30**	1.57
3ro - Agosto	S	**96.40**	1.60
3ro - Agosto	S	**142.50**	1.81
3ro - Agosto	V	**144.90**	1.52
3ro - Agosto	F	**109.80**	1.39
3ro - Agosto	V	**84.40**	1.42
3ro - Agosto	M	**110.50**	0.00
4to - Noviembre	C		1.55
4to - Noviembre	C	**103.60**	1.60
4to - Noviembre	D	**111.60**	1.31
4to - Noviembre	G	**90.00**	0.00
4to - Noviembre	L		1.36
4to - Noviembre	L	**87.90**	1.49
4to - Noviembre	M	**88.00**	1.51
4to - Noviembre	R	**92.40**	1.61
4to - Noviembre	S	**98.30**	1.71
4to - Noviembre	S	**151.80**	1.67
4to - Noviembre	V	**132.70**	1.53
4to - Noviembre	F	**111.10**	1.30

Press

Testeo	Atleta	P 1RM	P rel
1ro - Abril	C	**26.00**	0.47
1ro - Abril	C	**29.80**	0.43
1ro - Abril	D	**30.50**	0.41
1ro - Abril	G	**29.70**	0.43
1ro - Abril	L	**30.40**	0.51
1ro - Abril	L	**27.30**	0.43
1ro - Abril	M	**25.60**	0.45
1ro - Abril	R	**25.30**	0.41
1ro - Abril	S	**34.00**	0.53
1ro - Abril	S		
1ro - Abril	S		
1ro - Abril	Fl	**36.40**	0.51
1ro - Abril	V	**30.40**	0.50
1ro - Abril	V	**35.90**	0.46
1ro - Abril	M		
2do - Junio	C	**28.00**	0.48
2do - Junio	C	**31.30**	0.46
2do - Junio	D	**32.90**	0.46
2do - Junio	G	**30.20**	0.44
2do - Junio	L	**34.70**	0.58
2do - Junio	L	**30.00**	0.47
2do - Junio	M	**25.90**	0.45
2do - Junio	R	**26.60**	0.43
2do - Junio	S	**38.00**	0.62
2do - Junio	S	**32.90**	0.37
2do - Junio	V	**38.30**	0.48
2do - Junio	Fl	**38.30**	0.53
2do - Junio	V	**31.30**	0.52
2do - Junio	M	**27.80**	0.36
3ro - Agosto	C	**28.00**	0.48
3ro - Agosto	C	**32.60**	0.48
3ro - Agosto	D	**36.10**	0.50
3ro - Agosto	G	**34.40**	0.50
3ro - Agosto	L	**34.70**	0.58
3ro - Agosto	L	**30.00**	0.47
3ro - Agosto	M	**25.90**	0.45
3ro - Agosto	R	**26.60**	0.43
3ro - Agosto	S	**38.00**	0.62
3ro - Agosto	S	**37.40**	0.42
3ro - Agosto	V	**38.30**	0.48
3ro - Agosto	Fl	**43.40**	0.60
3ro - Agosto	V	**34.40**	0.57
3ro - Agosto	M	**31.30**	0.40
4to - Noviembre	C		0.00
4to - Noviembre	C	**34.40**	0.52
4to - Noviembre	D	**36.40**	0.52
4to - Noviembre	G	**34.00**	0.49
4to - Noviembre	L		0.00
4to - Noviembre	L	**36.10**	0.56
4to - Noviembre	M	**31.30**	0.53
4to - Noviembre	R	**30.10**	0.49
4to - Noviembre	S	**40.00**	0.65
4to - Noviembre	S	**39.20**	0.44
4to - Noviembre	V	**40.00**	0.50
4to - Noviembre	Fl	**40.00**	0.55

Relative Squat	
L	1.47
S	1.47
R	1.37
V	1.32
V	1.29
M	1.28
F	1.26
S	1.24
D	1.22
M	1.15
C	1.13
G	1.10
L	0.99
C	N/A

Team Evolution

jamovi Stats. Open. Now.

R Programming

jamovi - FuerzaNoviembre2023-paraJamovi

Variables | Data | Analyses | Edit

Exploration | T-Tests | ANOVA | Regression | Frequencies | Factor | esci | Flexplot | Base R | R | Modules

	Equipo	Fecha	Atleta	PC kg	Sent 1RM	Sent rel	Tir
1	UNLaM	Abril 2023	C	55.0			
2	UNLaM	Abril 2023	C	69.2	70.7	1.02	
3	UNLaM	Abril 2023	D	74.0	90.7	1.23	
4	UNLaM	Abril 2023	G	68.5	78.8	1.15	
5	UNLaM	Abril 2023	L	59.4	80.0	1.35	
6	UNLaM	Abril 2023	L	64.2	65.2	1.02	
7	UNLaM	Abril 2023	M	56.9			
8	UNLaM	Abril 2023	R	61.4	69.8	1.14	
9	UNLaM	Abril 2023	S	63.7	90.4	1.42	
10	UNLaM	Abril 2023	S	100.0	77.9	0.78	
11	UNLaM	Abril 2023	S	88.2	106.6	1.21	
12	UNLaM	Abril 2023	F	71.5	77.9	1.09	
13	UNLaM	Abril 2023	V	60.9	78.3	1.29	
14	UNLaM	Abril 2023	V	77.8	91.8	1.18	
15	UNLaM	Abril 2023	M	76.2			
16	UNLaM	Junio 2023	C	58.0			
17	UNLaM	Junio 2023	C	67.5	76.6	1.13	
18	UNLaM	Junio 2023	D	71.5	87.4	1.22	
19	UNLaM	Junio 2023	G	68.9	75.6	1.10	
20	UNLaM	Junio 2023	L	59.4			
21	UNLaM	Junio 2023	L	64.5			
22	UNLaM	Junio 2023	M	57.5	66.3	1.15	
23	UNLaM	Junio 2023	R	61.9	84.5	1.37	
24	UNLaM	Junio 2023	S	61.5	90.4	1.47	
25	UNLaM	Junio 2023	S	89.0	110.8	1.24	
26	UNLaM	Junio 2023	F	79.9	105.6	1.32	
27	UNLaM	Junio 2023	V	72.4	91.5	1.26	
28	UNLaM	Junio 2023	V	60.7	78.3	1.29	

Ready | Filters 0 | Row count 57 | Filtered 0 | Deleted 0 | Added 0 | Cells edited 21

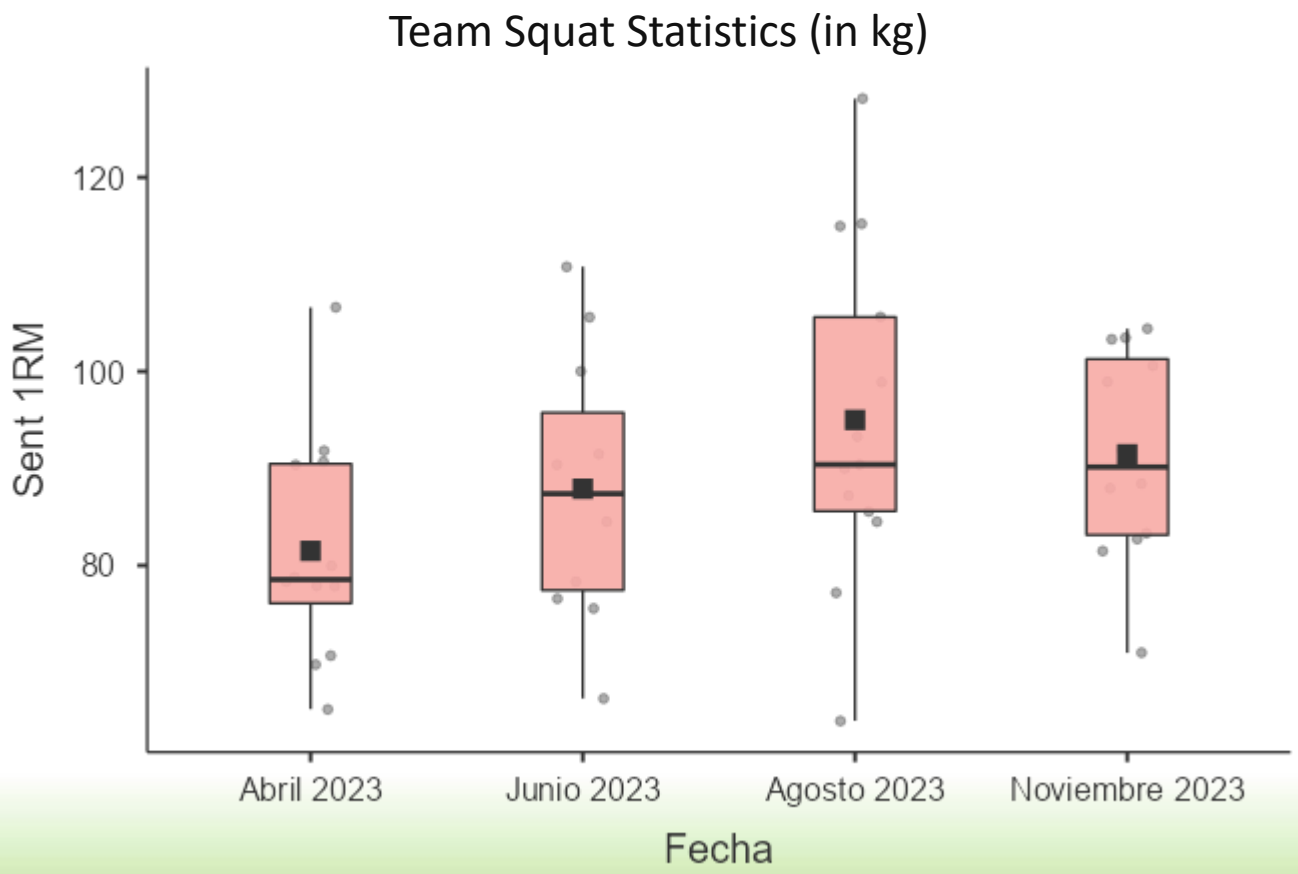
Results

Descriptives

Descriptives

	Fecha	PC kg	Sent 1RM	Despegue 1RM	Press 1RM
N	Abril 2023	15	12	10	12
	Junio 2023	14	11	9	11
	Agosto 2023	14	13	13	14
	Noviembre 2023	14	12	12	12
Missing	Abril 2023	0	3	5	3
	Junio 2023	0	3	5	3
	Agosto 2023	0	1	1	0
	Noviembre 2023	0	2	2	2
Mean	Abril 2023	69.8	81.5	90.4	30.1
	Junio 2023	67.9	87.9	101	32.8
	Agosto 2023	67.9	95.0	106	33.6
	Noviembre 2023	68.6	91.5	105	35.8
Std. error mean	Abril 2023	3.15	3.33	6.00	1.09
	Junio 2023	2.51	4.10	8.13	1.31
	Agosto 2023	2.51	4.82	5.59	1.33
	Noviembre 2023	2.40	3.11	5.85	0.992
95% CI mean lower bound	Abril 2023	63.6	75.0	78.7	28.0
	Junio 2023	63.0	79.9	85.1	30.2
	Agosto 2023	63.0	85.6	94.8	31.1
	Noviembre 2023	63.9	85.4	93.2	33.9
95% CI mean upper bound	Abril 2023	76.0	88.0	102	32.2
	Junio 2023	72.8	96.0	117	35.3

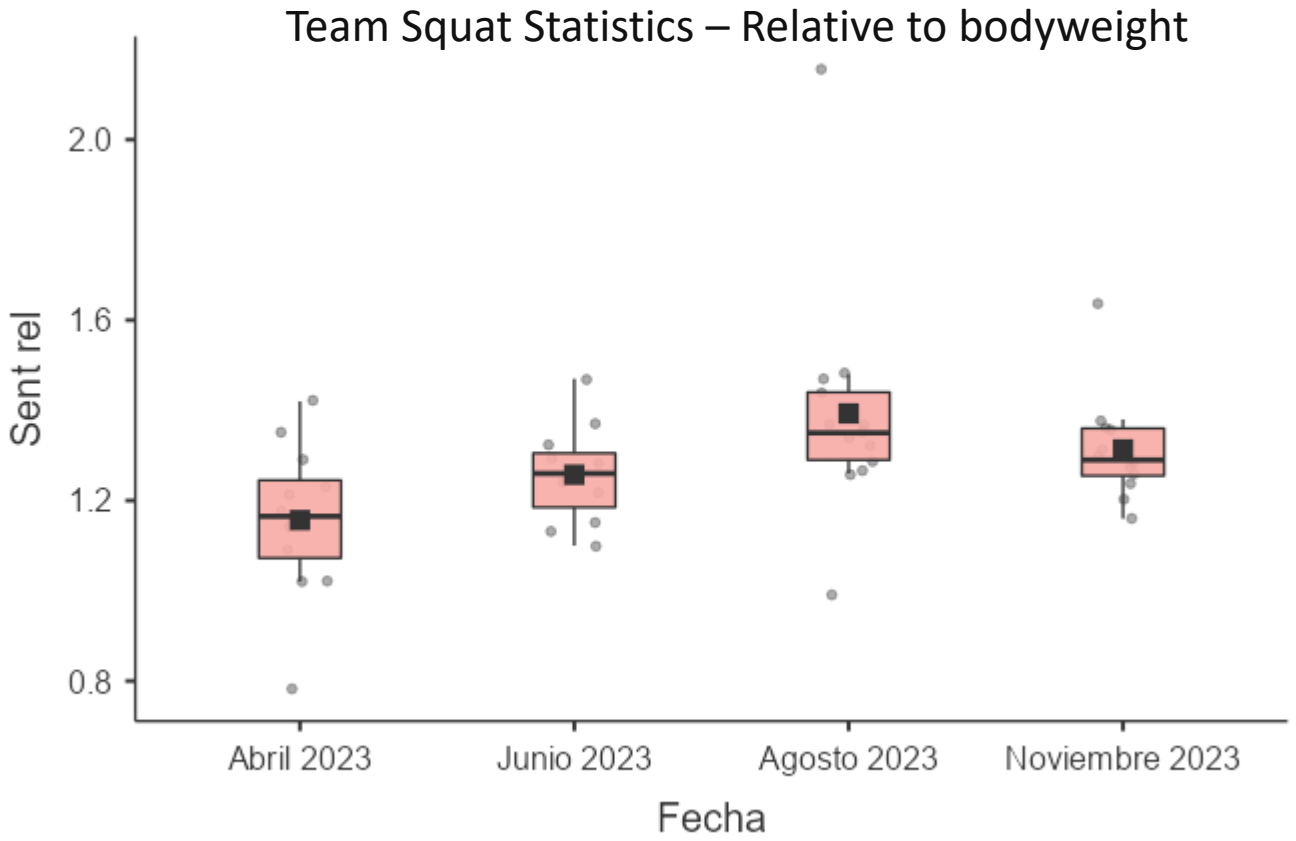
Squat



The team's average squat strength increased throughout the year during the strength and power phases of the sport calendar. After the maintenance phase, which coincided with the Metropolitan Tournament, the strength level for this exercise slightly decreased within the expected parameters. However, the team finished the year with higher lower body strength compared to the beginning of the year. This places them in a more advantageous situation to tackle 2024 and the upcoming sport demands.

UNLaM

Squat



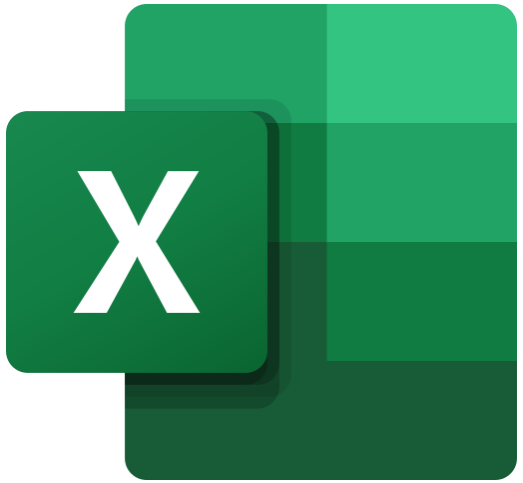
The relative strength for the squat shows a similar trend compared to the absolute values. On average, the team is better equipped to start 2024 in the category considered ‘Good’, which is higher than 125% of their own bodyweight, compared to April 2023 when their values were ‘Acceptable’, or between 100% and 125% of their own weight.

UNLaM

Project 2: Edith Cowan University

Edith Cowan University

Monitoring Unit (Dr. Greg Haff) - 2021



Excel

Visual Basic

Home Screen – Quick accesses

Data Imput

Training | Physical | Wellness | Match | Medical | Updates

Dashboards

Individuals | Weekly | Team

Print Reports

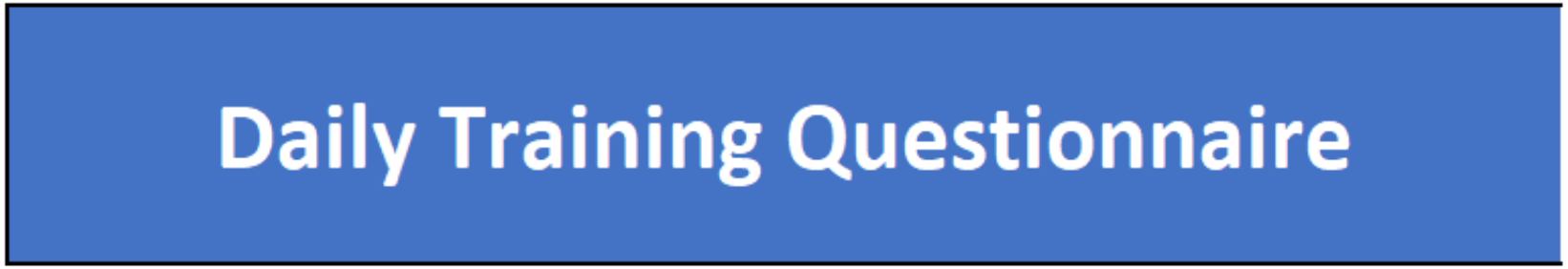
Physical | Training | Games | Wellness & Medical

Databases

Training | Physical | Wellness | Match | Medical | Updates | C-Pannel

Home | D.I.Train | D.I.Phys | D.I.Well | D.I.Match | D.I.Med | D.I.Upd | Dash Ind | d.calc | Dash Weekly | w.calc | Dash Team | t.calc | Phys Rep | Phys-re

Data Input Tab: Training information



Training

Date (dd-mm-yyyy)	
Name	Kendall
Training Type	Endurance
Duration (minutes)	78
Session RPE	sRPE ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ◉ 8 ○ 9 ○ 10

1 - "aint notin' but a peanut" ; 10 - "completely extenuating"

Home

Upload

Controls for Dr. H:

Database

Hide Columns

Individual Dashboard

Controls

Select athlete to visualize data:

French

Home

Performance Profile: French

French

Medical

Illness Count	Injury Count	Other Medical Categories
0	0	0

Overall Availability Average

Player	3.0
Team	2.7

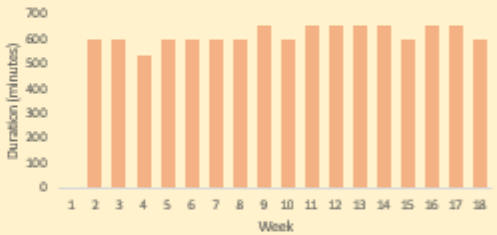
Weekly Average Availability

Wellness

	Sleep Quality	Sleep Hours	Soreness	Stress	Fatigue	Motivation	Wellness Score
Average of the last 7 days	3.0	7.7	4.7	4.7	4.7	7.5	32.2
Average of the last 30 days	3.3	8.0	4.4	4.4	4.4	5.4	29.8
Overall plager average	3.0	7.0	4.6	4.6	4.6	5.1	29.0

Training Load and Wellness

Training Duration

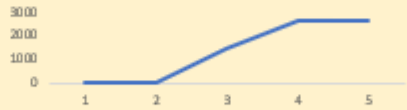


Rate of Perceived Exertion

Physical

	Fitness	Lower Body Strength	Power Clean	Upper Body Strength	Speed 10 mts	Jump Power
Rating	Good	Poor	Poor	Poor	Excellent	Ok
Result	2700	105	68.25	78.75	1.75	59
Band	4	2	2	2	5	4

Fitness



Lower Body Strength

Power Clean

Upper Body Strength

Speed 10 mts

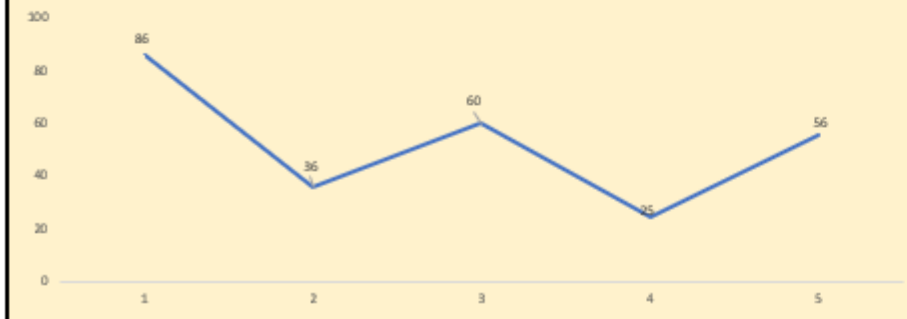
Jump Power

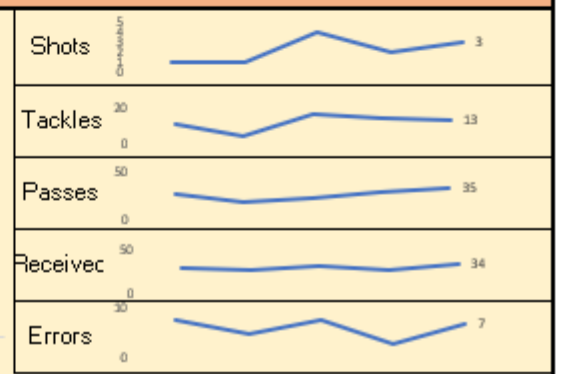
Updates

Date	Priority	Area	Comment
30/04/2022	2	Performance	Good COD technique
29/04/2022	2	Medical	Covid 19 positive
27/04/2022	2	Performance	good passes session
26/04/2022	2	Medical	Covid 19 positive
22/04/2022	2	Performance	Didn't hit tackle # goal

Match Performance

Match Performance Rating: French





Weekly Dashboard

Controls

To plot "only team", leave blank. To plot "vs athlete", select:

Kendall

Home

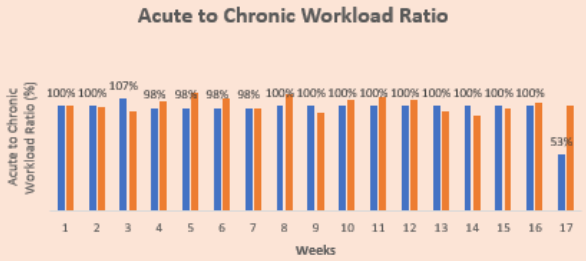
Weekly Information Dashboard

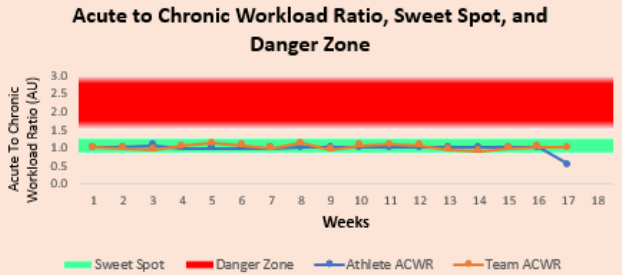
Team Weekly Averages

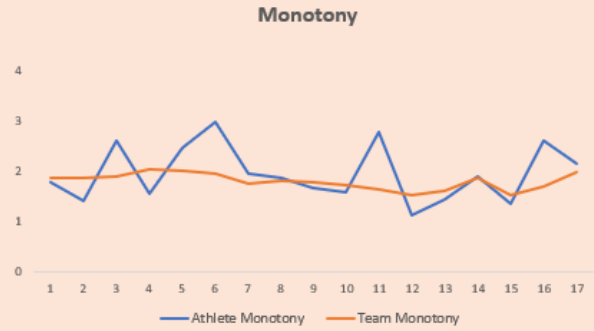
Week	Average RPE	Training Load	Acute to Chronic Workload Ratio	Monotony	Strain	Availability
2	4.9	2975		1.9	5520	2.6
3	4.9	2890	100%	1.9	5413	2.7
4	5.0	2685	99%	1.9	5104	2.6
5	5.0	3000	94%	2.0	6122	2.8
6	5.4	3228	104%	2.0	6537	2.8
7	5.2	3138	112%	2.0	6120	2.7
8	4.9	2927	106%	1.8	5159	2.7
9	5.2	3412	97%	1.8	6162	2.6
10	4.9	2958	111%	1.8	5275	2.7
11	5.0	3292	93%	1.7	5657	2.8
12	5.1	3408	106%	1.6	5578	2.8
13	5.1	3442	108%	1.5	5243	2.8
14	4.7	3075	105%	1.6	4964	2.7
15	5.0	3005	94%	1.9	5616	2.8
16	4.7	3155	91%	1.5	4860	2.8
17	5.0	3252	98%	1.7	5560	2.8
18	5.2	3138	103%	2.0	6184	2.9

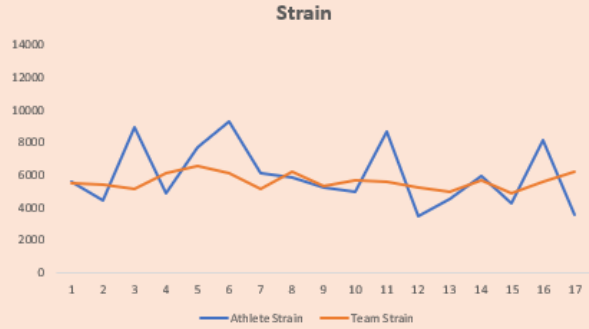
Athlete: Kendall

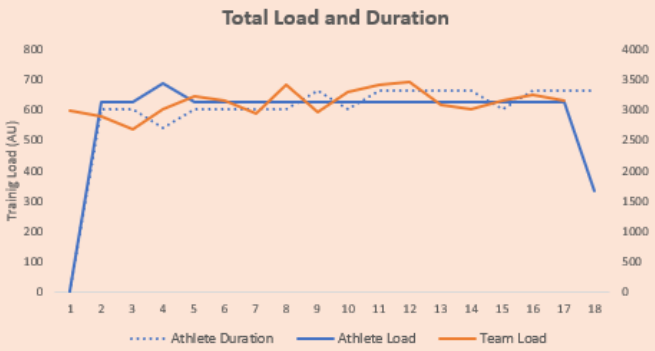
Week	Average RPE	Weekly Training Load	Acute to Chronic Workload Ratio	Monotony	Strain	Availability
2	5.9	3120	100%	1.8	5546	2.5
3	3.9	3120	100%	1.4	4424	2.5
4	6.3	3440	107%	2.6	8948	2.8
5	5.7	3120	98%	1.6	4845	3.0
6	5.8	3120	98%	2.5	7672	2.3
7	7.1	3120	98%	3.0	9270	2.3
8	5.9	3120	98%	2.0	6098	3.0
9	4.8	3120	100%	1.9	5866	1.2
10	2.9	3120	100%	1.7	5172	2.5
11	5.1	3120	100%	1.6	4962	3.0
12	6.3	3120	100%	2.8	8648	3.0
13	4.3	3120	100%	1.1	3476	3.0
14	5.8	3120	100%	1.5	4536	3.0
15	5.4	3120	100%	1.9	5958	3.0
16	4.4	3120	100%	1.4	4218	3.0
17	4.7	3120	100%	2.6	8109	3.0
18	4.7	1660	53%	2.2	3578	3.0

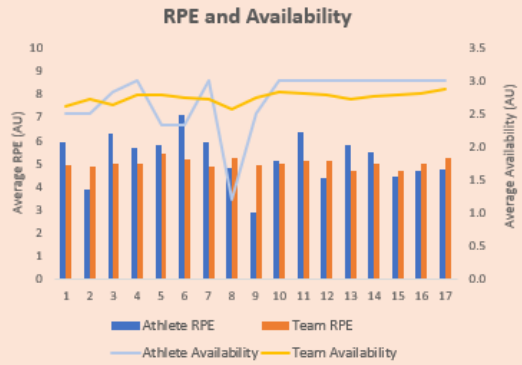












Home | D.I.Train | D.I.Phys | D.I.Well | D.I.Match | D.I.Med | D.I.Upd | Dash Ind | d.calc | Dash Weekly | w.calc | Dash Team | t.calc | Phys Rep | Phys-re

Team Dashboard

EDITH COWAN UNIVERSITY AUSTRALIA

Controls

Home

Select a combination of weeks and days to visualize data:

Week

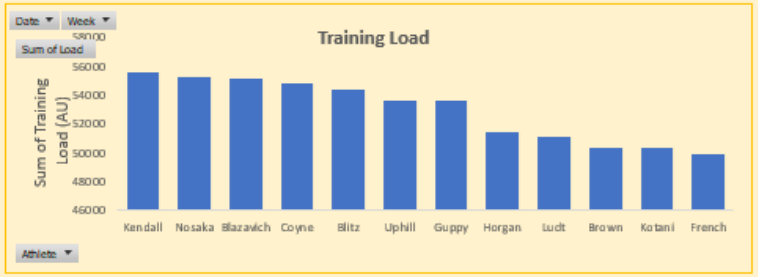
2	3	4	5
6	7	8	9
10	11	12	13
14	15	16	17
18			

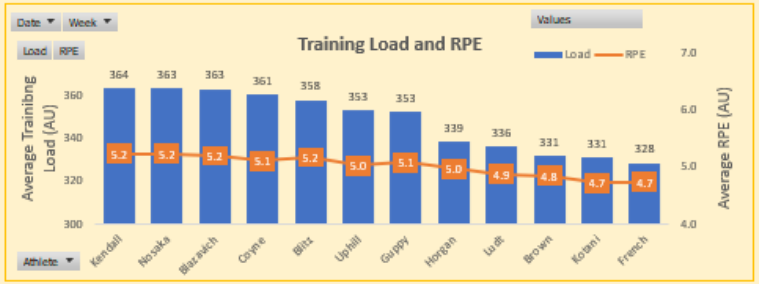
Date

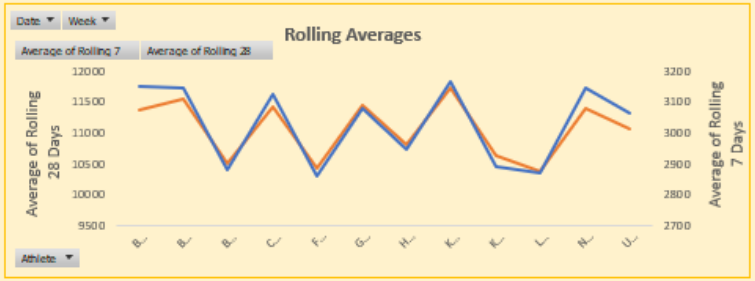
03-01-22	04-01-22	05-01-22
06-01-22	07-01-22	08-01-22
10-01-22	11-01-22	12-01-22
13-01-22	14-01-22	15-01-22
17-01-22	18-01-22	19-01-22
20-01-22	21-01-22	22-01-22
24-01-22	25-01-22	26-01-22

Team Dashboard

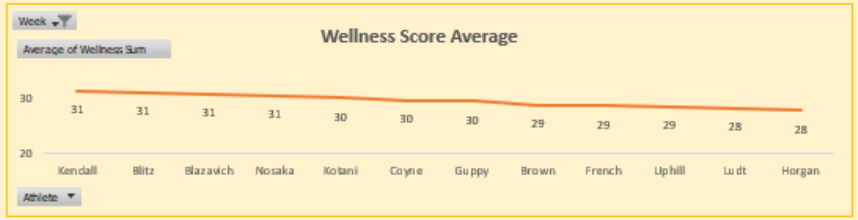
Load

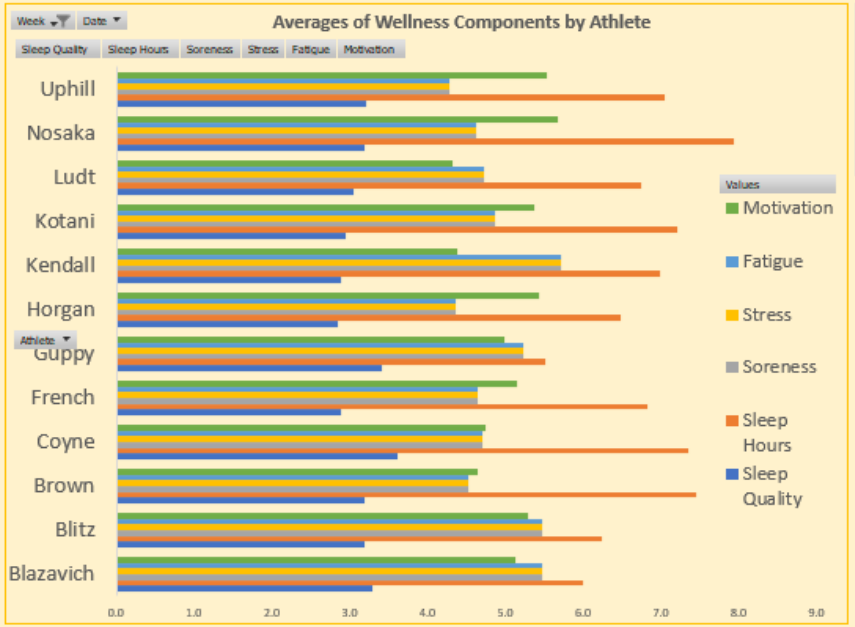






Wellness

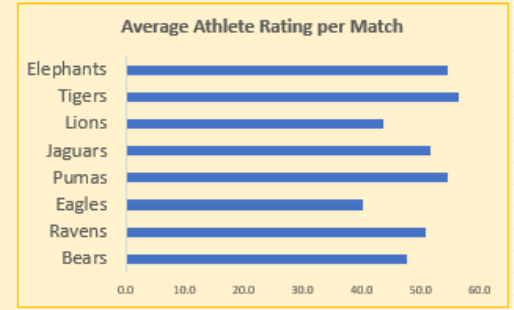




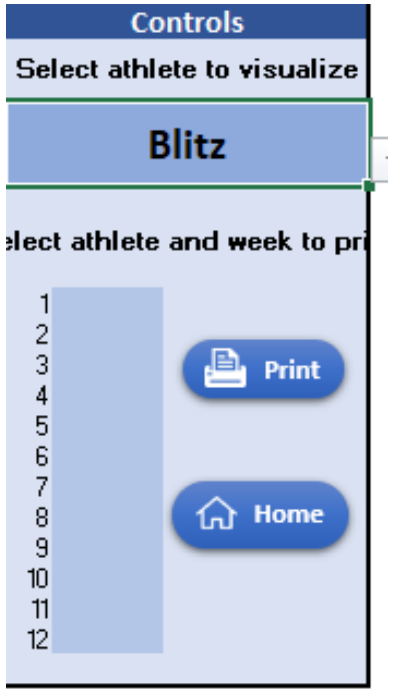
Physical Performance

Latest Vs Overall Averages — Latest — Overall

Match Performance



Wellness and Medical Report



Wellness, Medical, and Availability Report: Blitz

Total illness count
3

Total injury count
20

Total of other conditions count
7

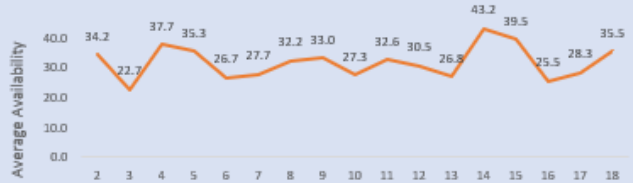
Week	Weekly Wellness: Sleep Quality	Sleep Hours	Soreness	Stress	Fatigue	Motivation	Wellness Score	Weekly Health: Illness	Injury	Other	Availability
2	3.0	8.7	4.7	4.7	4.7	8.5	34.2	0	0	3	2.5
3	2.7	3.8	4.2	4.2	4.2	3.7	22.7	0	0	0	2.5
4	3.7	5.8	7.2	7.2	7.2	6.7	37.7	3	2	0	2.2
5	2.7	8.0	6.3	6.3	6.3	5.7	35.3	0	4	0	2.3
6	3.7	6.0	4.5	4.5	4.5	3.5	26.7	0	0	0	3.0
7	4.2	3.3	5.2	5.2	5.2	4.7	27.7	0	0	0	3.0
8	2.5	5.2	6.5	6.5	6.5	5.0	32.2	0	0	0	3.0
9	3.2	9.6	5.2	5.2	5.2	4.6	33.0	0	0	1	2.8
10	3.5	5.8	4.2	4.2	4.2	5.5	27.3	0	0	1	2.8
11	3.0	5.7	6.1	6.1	6.1	5.4	32.6	0	0	0	3.0
12	3.5	5.2	5.7	5.7	5.7	4.8	30.5	0	3	0	2.5
13	2.5	6.3	4.8	4.8	4.8	3.5	26.8	0	3	0	2.5
14	3.3	7.8	8.3	8.3	8.3	7.0	43.2	0	4	0	2.3
15	4.5	5.3	8.2	8.2	8.2	5.2	39.5	0	3	0	2.5
16	2.5	7.8	3.0	3.0	3.0	6.2	25.5	0	1	1	2.7
17	2.5	6.8	4.8	4.8	4.8	4.5	28.3	0	0	1	2.8
18	2.5	9.3	6.2	6.2	6.2	5.2	35.5	0	0	0	3.0

Latest Comments

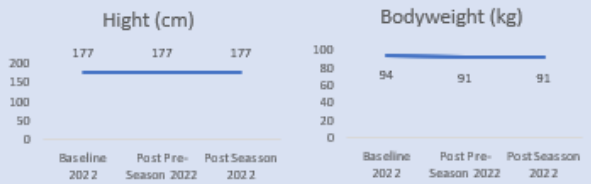
Date	Priority	Area	Comment
29-04-22	1	Medical	Hip injury
28-04-22	1	Strength & Conditioning	Much lower performance than usual
26-04-22	1	Medical	Light hip pain
23-04-22	1	Strength & Conditioning	lower performance than usual
20-04-22	1	Medical	Feeling in the hip

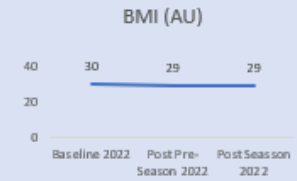
Weekly Wellness

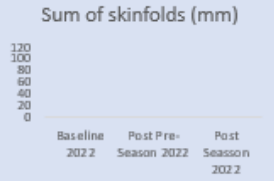
Weekly Availability



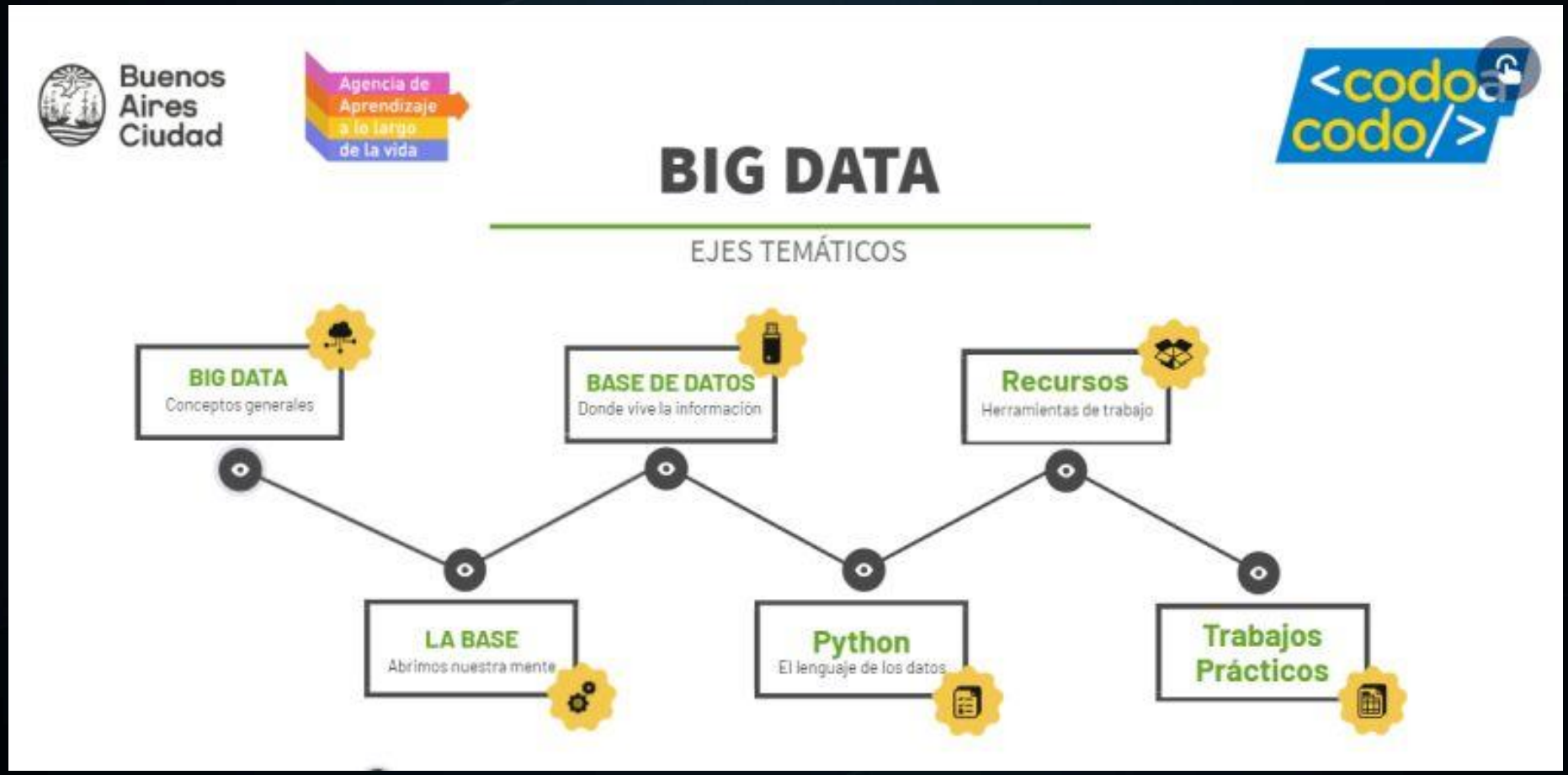
Anthropometrics



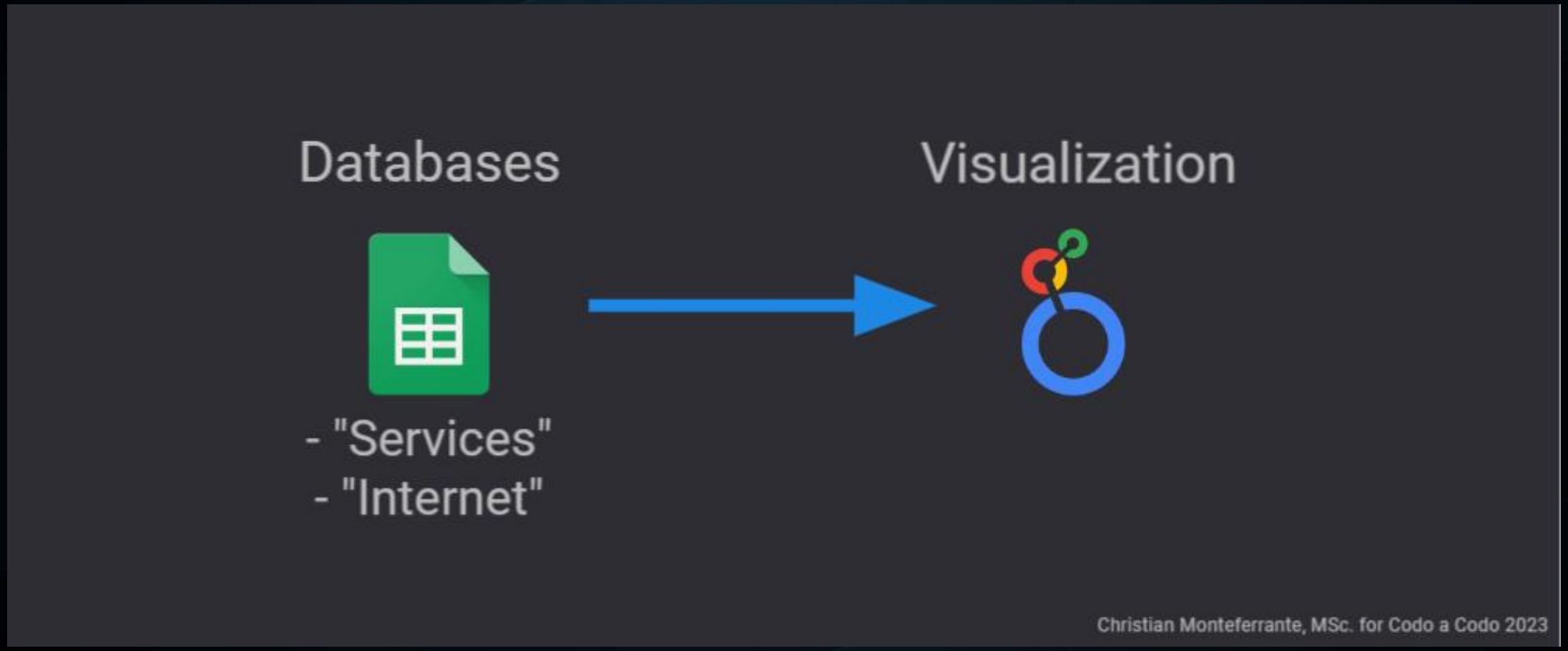




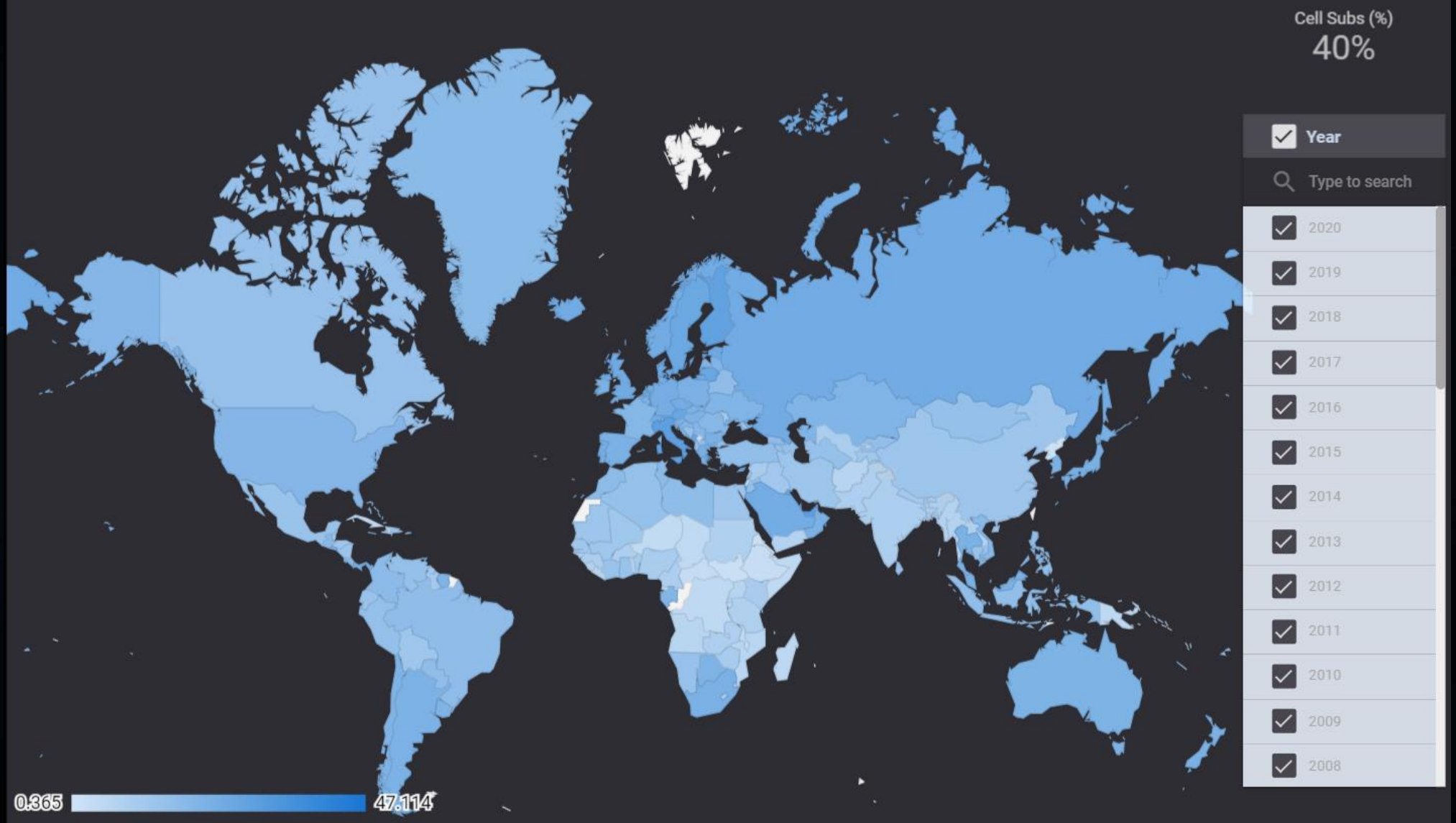
Project 3: Big Data – 2023



Sheets + Looker Studio

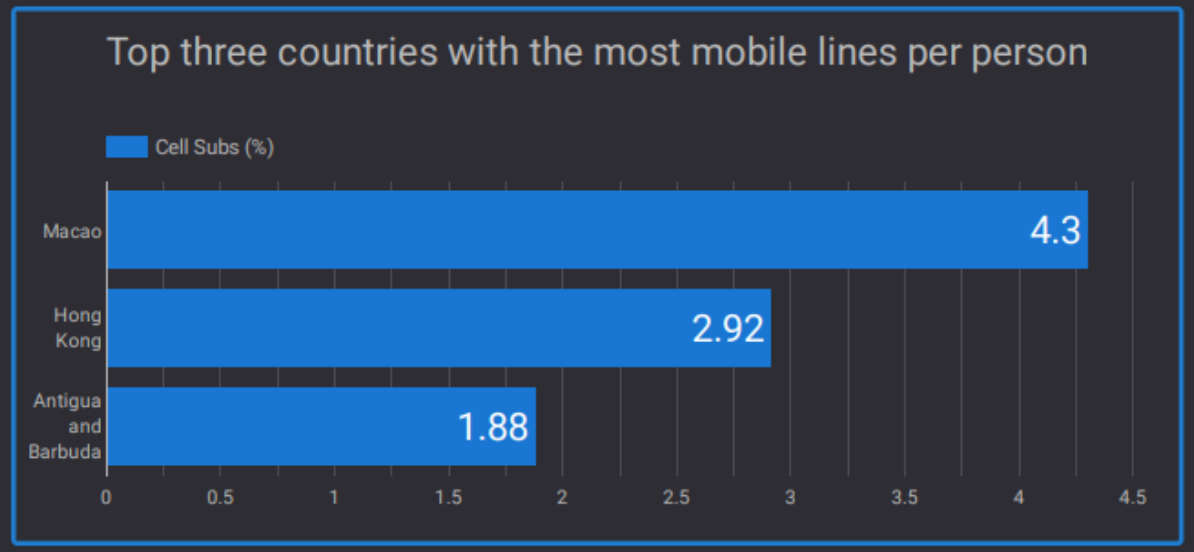


World mobile subscriptions percentage by country, from 1980 to 2020



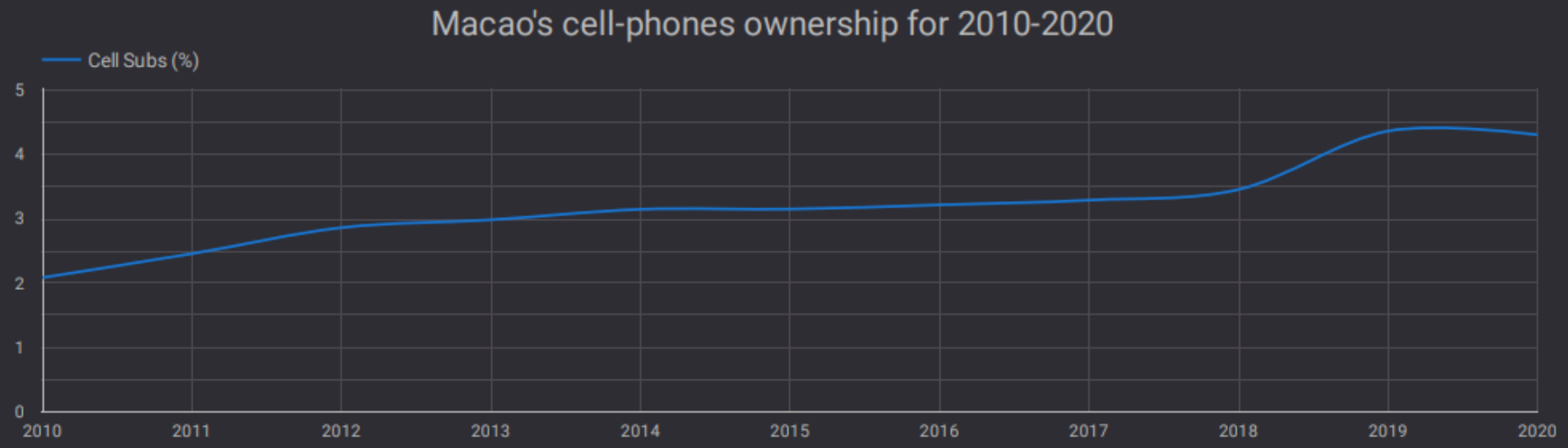
Over 100% denotes more than one mobile subscription per person

Country with the most mobile lines per person in 2020: Macao



Macao's average mobile line's ownership per person:

4.3



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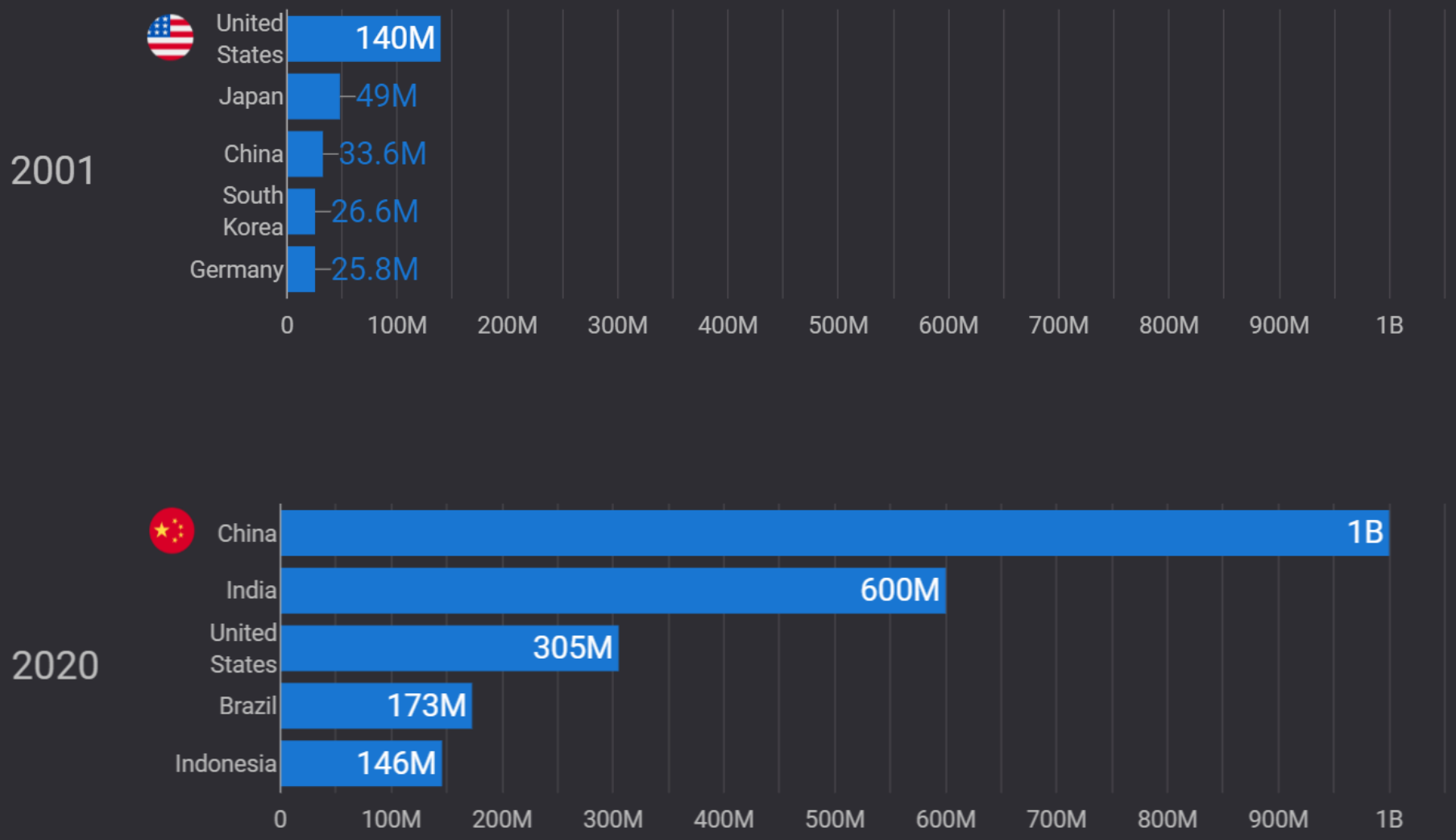
Top five countries with the highest number of internet users



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Dataset: “exams”

Basic Operations

Review data types

```
df.dtypes
```

```
id                             object
gender                         object
race/ethnicity                 object
parental level of education    object
lunch                          object
employed                       object
test preparation course        object
math score                    float64
physics score                 float64
chemistry score               float64
algebra_score                 float64
dtype: object
```

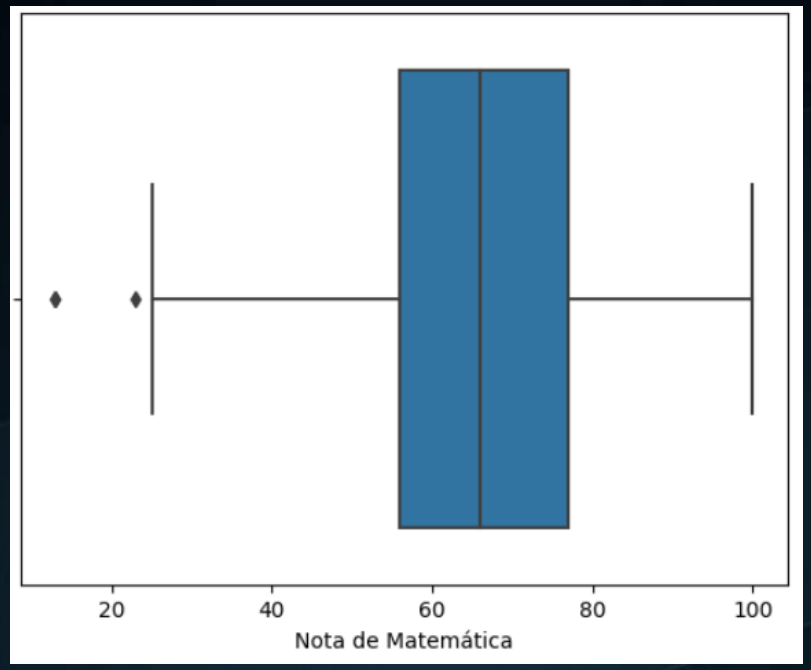
Drop duplicates

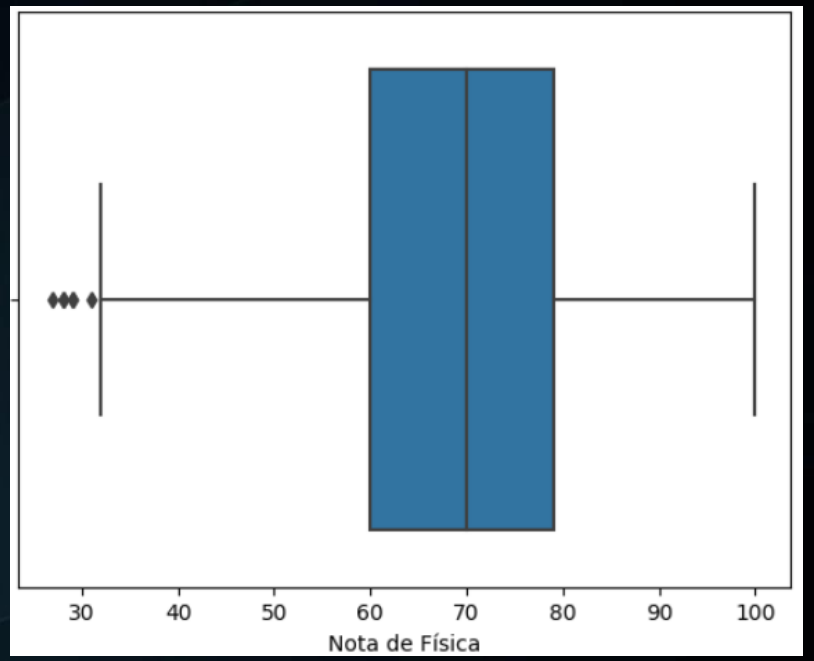
```
print(f'Original: {df.id.count()} filas')
duplicate_rows_df = df[df.duplicated()] #"duplicated???"
print(f'Cantidad de filas duplicadas: {duplicate_rows_df.id.count()}')

#eliminar duplicados
df = df.drop_duplicates()
#print (df.head())

# Filas despues de eliminar duplicados
print(f'Final: {df.id.count()} filas')

```

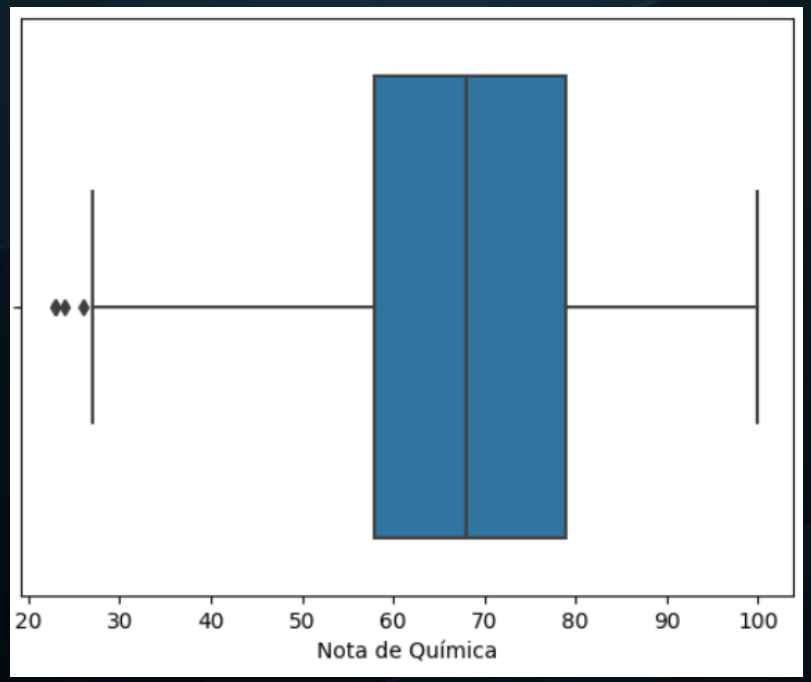
```
Original: 1018 filas
Cantidad de filas duplicadas: 18
Final: 1000 filas
```

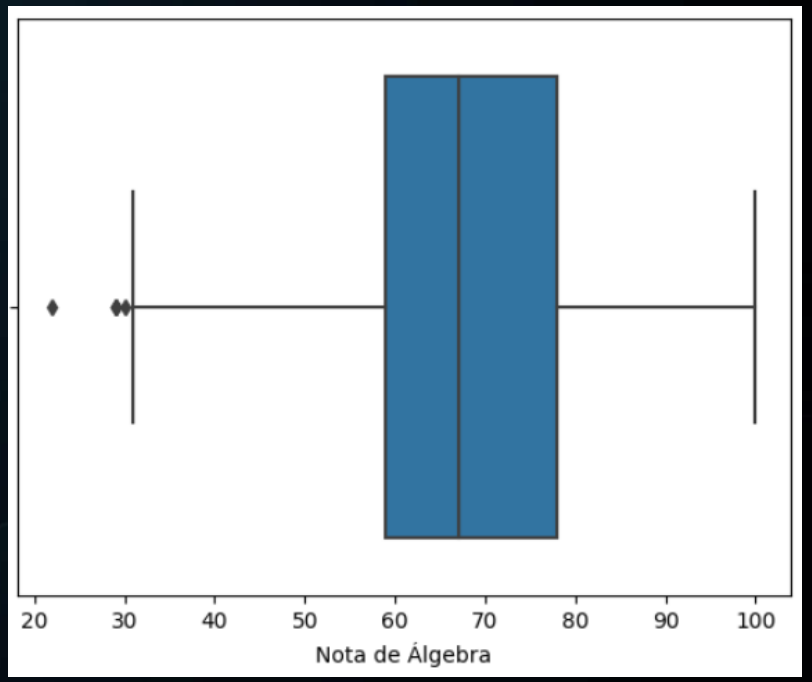
Detect outliers

```
#materias renombradas:
#"math score": "Nota de Matemática",
#"physics score": "Nota de Física",
#"chemistry score": "Nota de Química",
#"algebra_score": "Nota de Álgebra"

sns.boxplot(x=df['Nota de Matemática'])
plt.show()
sns.boxplot(x=df['Nota de Física'])
plt.show()
sns.boxplot(x=df['Nota de Química'])
plt.show()
sns.boxplot(x=df['Nota de Álgebra'])
plt.show()
```



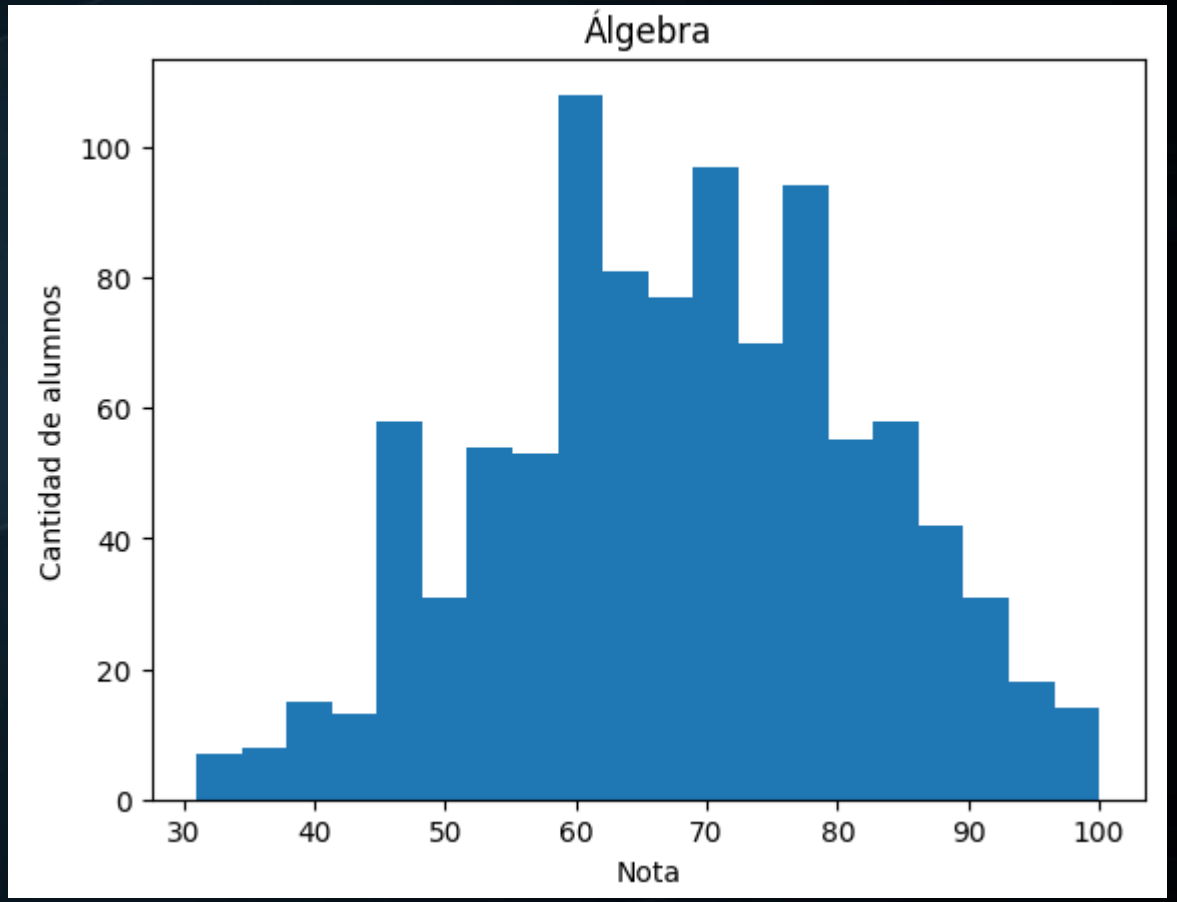






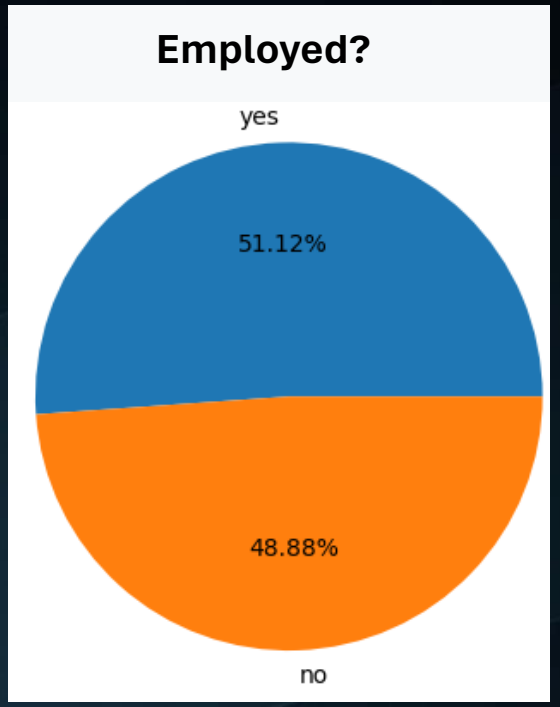
Frequencies: Plot histograms

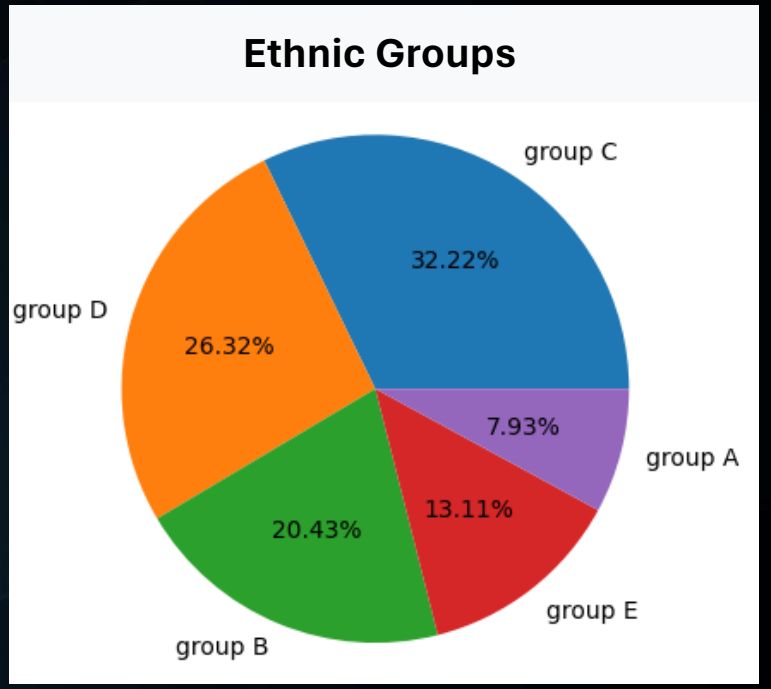
```python
#"math score": "Nota de Matemática",
#"physics score": "Nota de Física",
#"chemistry score": "Nota de Química",
#"algebra_score": "Nota de Álgebra"

#Algebra
plt.hist(df['Nota de Álgebra'], bins=20)
plt.title("Álgebra")
plt.ylabel("Cantidad de alumnos")
plt.xlabel("Nota")
plt.show()

#Chemistry
plt.hist(df['Nota de Química'], bins=20)
plt.title("Química")
plt.ylabel("Cantidad de alumnos")
plt.xlabel("Nota")
plt.show()

#Math
plt.hist(df['Nota de Matemática'], bins=20)
plt.title("Matemática")
plt.ylabel("Cantidad de alumnos")
plt.xlabel("Nota")
plt.show()

#Physics
plt.hist(df['Nota de Física'], bins=20)
plt.title("Física")
plt.ylabel("Cantidad de alumnos")
plt.xlabel("Nota")
plt.show()


```

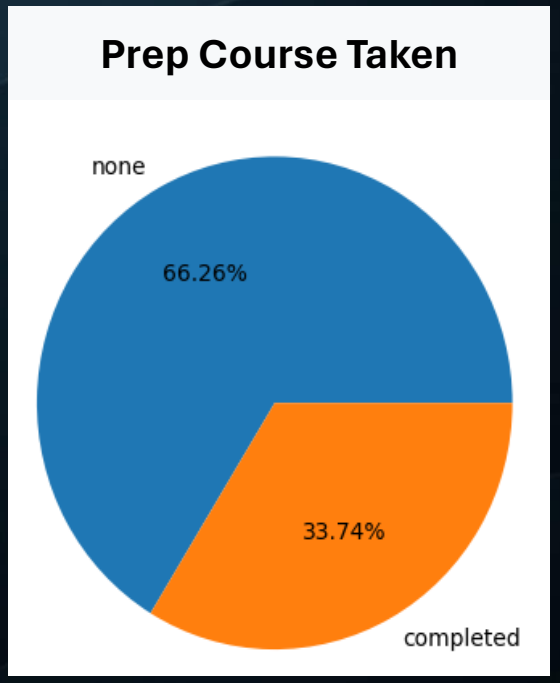


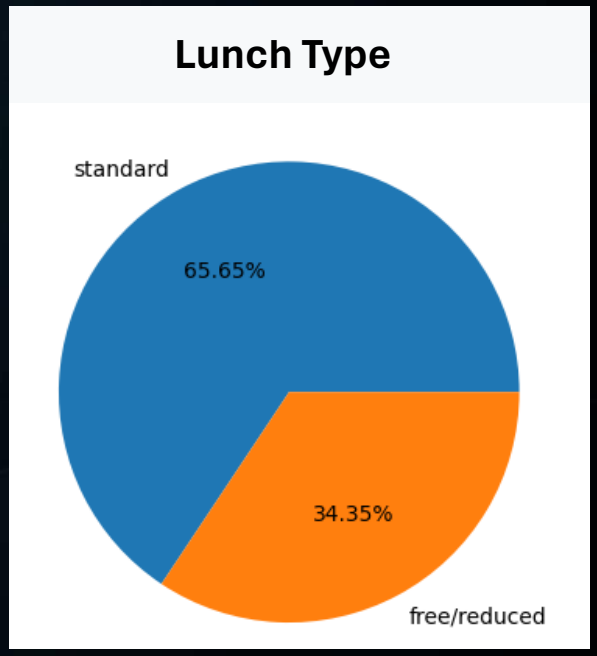
Categorical Values Exploration

```python
#pandas.value_counts()--> devuelve usa sere con valores unic

#Nombres actualizados:
#"gender" : "Género",
# "race/ethnicity": "Etnia",
#"parental level of education": "Educación de los padres",
#"lunch": "Almuerzo",
#"employed": "Empleado/a",
#"test preparation course": "Curso preparatorio",

#torta: 'Género'
labels = df['Género'].value_counts().index
sizes = df['Género'].value_counts()
plt.pie(sizes,labels=labels, autopct='%1.2f%%')
plt.title('Género')
plt.show()

#torta: 'Etnia'
labels = df['Etnia'].value_counts().index
sizes = df['Etnia'].value_counts()
plt.pie(sizes,labels=labels, autopct='%1.2f%%')
plt.title('Etnia')
plt.show()

#torta: 'Empleado/a'
labels = df['Empleado/a'].value_counts().index
sizes = df['Empleado/a'].value_counts()
plt.pie(sizes,labels=labels, autopct='%1.2f%%')
plt.title('¿Está empleado?')
plt.show()

#torta: 'Curso preparatorio'
labels = df['Curso preparatorio'].value_counts().index
sizes = df['Curso preparatorio'].value_counts()
plt.pie(sizes,labels=labels, autopct='%1.2f%%')
plt.title('¿Tomó el curso preparatorio?')
plt.show()
```









Christian Monteferrante, MSc., CSCS

cristian.monteferrante@gmail.com

/christian-monteferrante