Corso RMarkdown - Chickens Weight

Corso RMarkdown

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Contents

```
##   weight Time Chick Diet
## 1     42    0     1    1
## 2     51    2     1    1
## 3     59    4     1    1
## 4     64    6     1    1
## 5     76    8     1    1
## 6     93   10     1    1
```

1 Animal Bliss

1.1 How Much Does The Average Chicken Weigh?

1.1.1 Adesso cominciamo davvero

Website

Keeping chickens is a rewarding experience. Not only do they produce *tasty* eggs for the kitchen table, but chickens have surprisingly ***vibrant*** personalities and are very social animals. They can quickly start to feel like a member of the family.

But while a tiny chicken running around the backyard might seem like no problem at all, some chickens can get rather big. Exactly how big depends on their specific breed. Larger breeds can weigh as much as 10 pounds, while small bantam chickens can weigh less than two pounds. How big your chickens will get will dictate how many you can comfortably keep in the space you have.

With that in mind, we'll look at the average size of the most popular chicken breeds, using weight as an indicator of size. We will also go through how much space you need to keep a chicken well, based on their size.

1.2 Cochin chickens

Cochin chickens are known for their friendly manner and puffy plumage. They tend to be lazy, so they don't need too much space, and they enjoy getting attention from people of all sizes. This has made them popular pets, even though they only lay one or two eggs a week.

They are one of the giant chicken breeds, with the hens weighing around 8.5 pounds on average and the roosters an average of 11 pounds

They have a life expectancy of between five and eight years.

1.3 Brahma chickens

Brahma chickens are often known as gentle giants because they are big but friendly birds. They have soft feathers that you can snuggle up against, and this also helps them do relatively well in colder climates. They look regal with their large size and beautiful plumage, plus they will produce three to four eggs for you per week.

Brahma hens reach a respectable eight pounds in weight, while roosters are noticeably larger at around 10 pounds. Specially bred bantam versions of this chicken are sold, also.

The full-size birds generally have a lifespan of around eight years.

1.4 Orpington chickens

Orpington chickens are known to be both docile and broody, so they will sit on their eggs all day. But they are also very social and love attention so will enjoy being part of a family. They are known for the interesting colors of their plumage with pallets such as jubilee diamond and lemon cuckoo. They are good egg layers,producing between three and five eggs each week.

This is another very large breed, with hens averaging around eight pounds and roosters around 10 pounds. Bantam versions of the breed are also widely available.

They have a life expectancy of around eight years.

2 How Much Space Do My chickens Need?

How much space[1] your chickens need to live comfortably depends principally on their size, but temperament can also make a difference. Lazy chickens who prefer to sit for most of the day and that are docile can deal with a little less space than active chickens or those with a more aggressive nature[2]. But size can be used as a strong guide for determining the amount of space you need.

3 Come fare le liste

- Sinceramente
- Quella di Geolier
- Casa mia
  - Elenco annidato
  - Elenco rannicchiato
- La noia

1. La noia
2. Sinceramente
3. Quella di Geolier

Una canzone di Ghali, presentata a Sanremo 2024.

> Il prato è verde, più verde, più verde, sempre più verde (sempre più verde). Il cielo è blu, blu, blu, molto più blu (ancora più blu)

[1] What is space we still don't know honestly
[2] Also what is nature we still don't know

4 Come inserire le immagini

MARKDOWN: In questo modo non abbiamo modo di controllare le dimensioni, la posizione etc

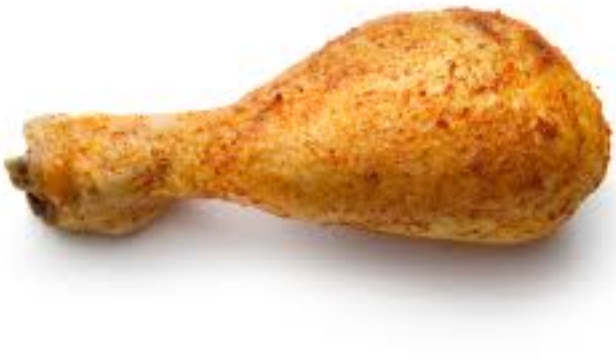


Figure 1: the dead chicken

RMARKDOWN: In questo altro modo invece possiamo gestire: la caption, l'allineamento, e la larghezza, l'altezza invece viene sempre aggiustata in proporzione da r. La percentuale fa riferimento alla grandezza della pagina (50% significa il 50% della larghezza della pagina)

```
knitr::include_graphics(path = "images/pollo.jpeg")
```

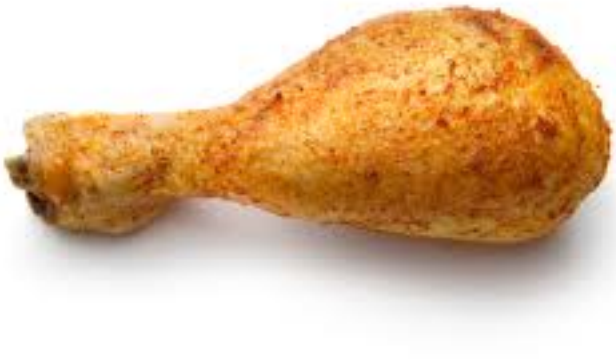


Figure 2: always the dead chicken

5 Come scrivere le citazioni

Esempio: Recenti studi (Epifania, Anselmi, and Robusto 2020b) dimostrano che il pollo è morto. Diversamente da questi, altri invece hanno studiato che il pollo può risorgere (Epifania, Anselmi, and Robusto 2020a). La dottoressa Mastromatteo adora i polli con la salsa barbecue (Scrimin et al. 2022).

6 Come scrivere la matematica

La famosa equazione di Einstein:

$$3 + 2 = 5$$

7 Come mettere le cross-references

```
knitr::kable(mtcars[1:5, ], caption = "Questo è un datiset")
```

Table 1: Questo è un datiset

	mpg	cyl	disp	hp	drat	wt	qsec	vs	am	gear	carb
Mazda RX4	21.0	6	160	110	3.90	2.620	16.46	0	1	4	4
Mazda RX4 Wag	21.0	6	160	110	3.90	2.875	17.02	0	1	4	4
Datsun 710	22.8	4	108	93	3.85	2.320	18.61	1	1	4	1
Hornet 4 Drive	21.4	6	258	110	3.08	3.215	19.44	1	0	3	1
Hornet Sportabout	18.7	8	360	175	3.15	3.440	17.02	0	0	3	2

@ref(tab:cars-table)

8 Chunck di codice

```
summary(cars)
```

```
##      speed           dist
##  Min.   : 4.0   Min.   :  2.00
##  1st Qu.:12.0   1st Qu.: 26.00
##  Median :15.0   Median : 36.00
##  Mean   :15.4   Mean   : 42.98
##  3rd Qu.:19.0   3rd Qu.: 56.00
##  Max.   :25.0   Max.   :120.00
```

9 Esercitazione chunks

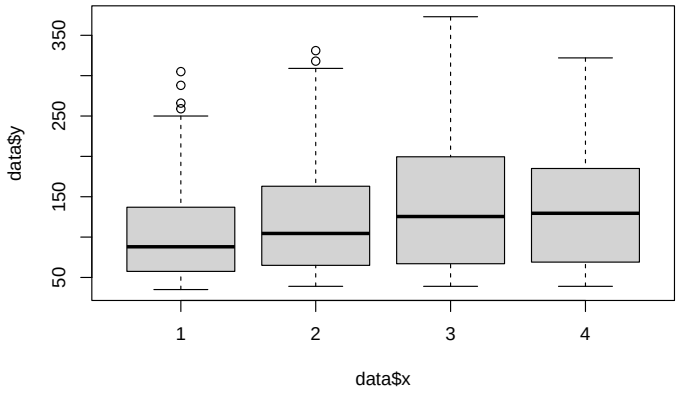
9.1 Create un nuovo chunk per il summary dei dati summary(dati) senza codice e con "NA" al posto degli hashtag nell'output

```
NA      weight           Time           Chick     Diet
NA  Min.   : 35.0   Min.   : 0.00   13     : 12   1:220
NA  1st Qu.: 63.0   1st Qu.: 4.00   9      : 12   2:120
NA  Median :103.0   Median :10.00   20     : 12   3:120
NA  Mean   :121.8   Mean   :10.72   10     : 12   4:118
NA  3rd Qu.:163.8   3rd Qu.:16.00   17     : 12
NA  Max.   :373.0   Max.   :21.00   19     : 12
NA                                  (Other):506
```

9.2 Nuovo chunk dove eseguite il codice del vostro dataset che trovate qui (non fate la regressione e il grafico) ma non mostrate né il codice né i risultati

9.3 Nuovo chunk dove eseguite il codice del grafico (plot(data$y$ $data$x)) senza codiceK

```
##
##   1   2   3   4
## 220 120 120 118
```




```
##
## Call:
## lm(formula = y ~ x, data = data)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -103.95  -53.65  -13.64   40.38  230.05
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept)  102.645      4.674  21.961  < 2e-16 ***
## x2            19.971      7.867   2.538   0.0114 *
## x3            40.305      7.867   5.123 4.11e-07 ***
## x4            32.617      7.910   4.123 4.29e-05 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 69.33 on 574 degrees of freedom
## Multiple R-squared:  0.05348,    Adjusted R-squared:  0.04853
## F-statistic: 10.81 on 3 and 574 DF,  p-value: 6.433e-07

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```

9.4 Nuovo chunk dove mostrate il codice del grafico (plot(data$y$ data$x$)) senza risultati

```
# assegnare il dataset all'oggetto data
data = ChickWeight
# rinominare la variabaile dipendente in y
data$y = ChickWeight$weight
# rinominare la variabile indipedente in x
data$x = ChickWeight$Diet
# maggiori dettagli sulla x
table(data$x)

# grafico
plot(data$y ~ data$x)

# regressione
m = lm(y ~ x, data = data)
# summary del modello
summary(m)
```

9.5 Tagliate l'output del vostro dataset in modo che vengano mostrate le prime 10 osservazioni

```
head(dati,10)
```

```
    weight Time Chick Diet
1       42    0     1    1
```

```
  2       51     2      1     1
  3       59     4      1     1
  4       64     6      1     1
  5       76     8      1     1
  6       93    10      1     1
  7      106    12      1     1
  8      125    14      1     1
  9      149    16      1     1
  10     171    18      1     1
....
```

10 Come fare le tabelle

Asis va impostato nelle impostazioni del chunk, perchè i risultati siano interpretati come un codice che deve essere compilato
Esercizio: Tabella di summary del vostro dataset con 3 decimali

Table 2: Tabella Summary

Statistic	N	Mean	St. Dev.	Min	Max
weight	578	121.818	71.072	35	373
Time	578	10.718	6.758	0	21

Tabella di summary del vostro modello di regressione Come si vede nella tabella 2

Table 3: Risultati del modello

	Dependent variable:
	y
x2	19.971**
	(7.867)
x3	40.305***
	(7.867)
x4	32.617***
	(7.910)
Constant	102.645***
	(4.674)
Observations	578
R^2	0.053
Adjusted R^2	0.049
Residual Std. Error	69.326 (df = 574)
F Statistic	10.810*** (df = 3; 574)
Note:	*p<0.1; **p<0.05; ***p<0.01

Per scrivere nel testo la media si può usare questo codice

```
`r mean(dati$weight)`
```

e questo è il risultato: La media del peso dei polli è 121.8183391

References

Epifania, Ottavia M, Pasquale Anselmi, and Egidio Robusto. 2020a. "Dscoreapp: A Shiny Web Application for the Computation of the Implicit Association Test d-Score." *Frontiers in Psychology* 10: 489006.

———. 2020b. "Implicit Measures with Reproducible Results: The implicitMeasures Package." *Journal of Open Source Software* 5 (52): 2394.

Scrimin, Sara, Libera Ylenia Mastromatteo, Ani Hovnanyan, Benedetta Zagni, Enrico Rubaltelli, and Tiziana Pozzoli. 2022. "Effects of Socioeconomic Status, Parental Stress, and Family Support on Children's Physical and Emotional Health During the COVID-19 Pandemic." *Journal of Child and Family Studies* 31 (8): 2215–28.