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MIS 64060 Fundamentals of Machine Learning

Dr. Rouzbeh Razavi

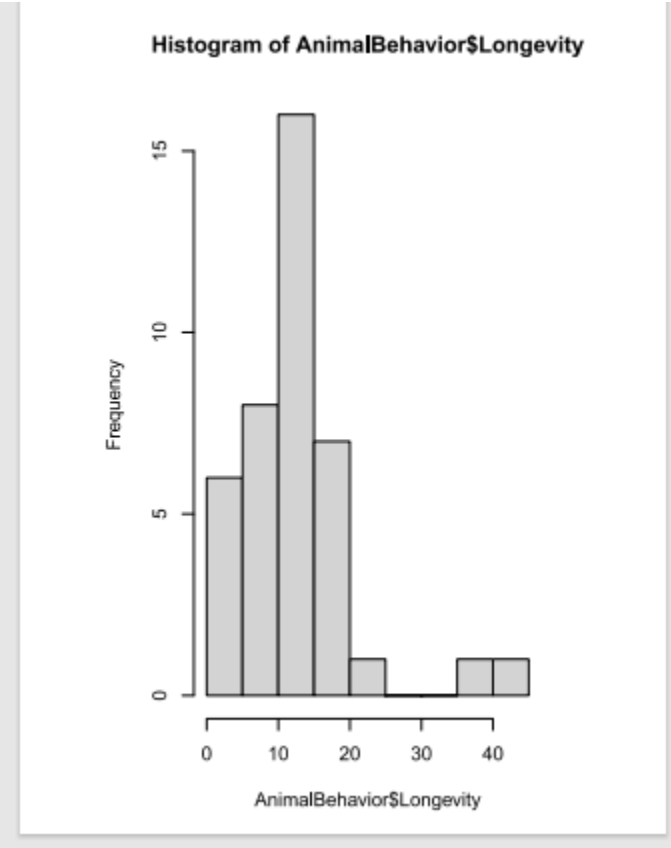
Assignment 1- Answers

https://www.bartleby.com/

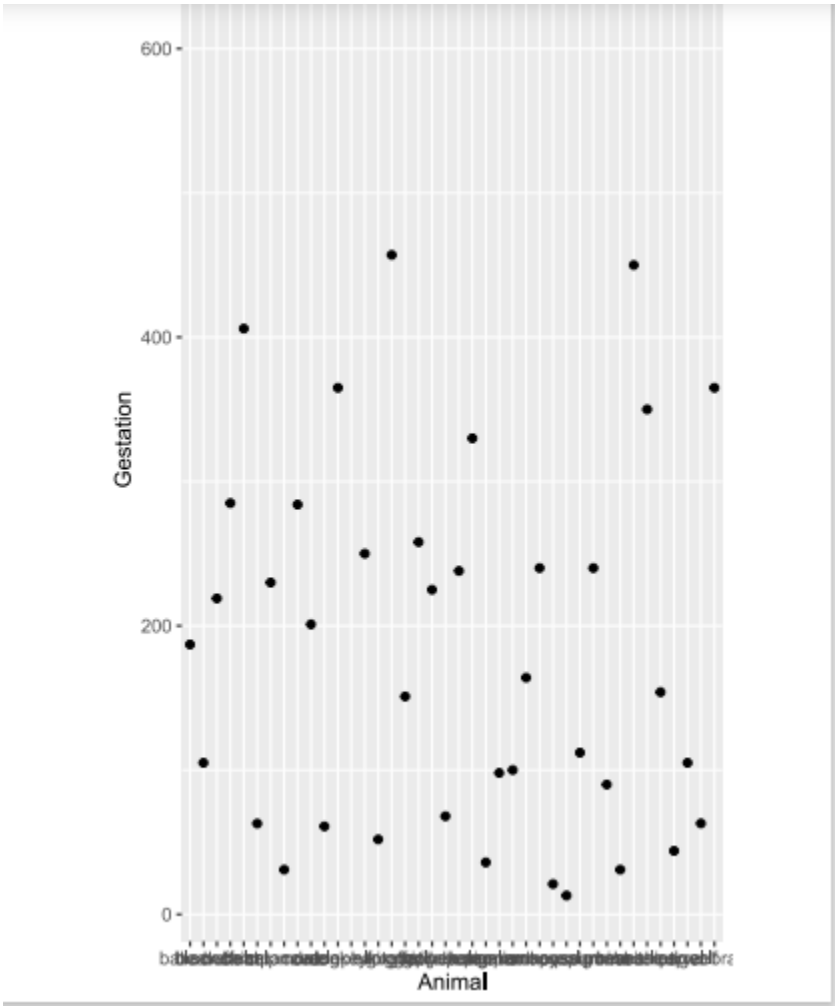
The datafile Gestation06 lists the average gestation period (in days) and longevity (in years) for a sample of animals

```
library(readxl)
Gestation06 <- read_excel("D:/Fundamentals of Machine Learning Spring 2022/
Module 1 Github/Gestation06.xls")
View(Gestation06)
library(dplyr)
library(tibble)
library(tidyverse)
library(ISLR)
AnimalBehavior <- Gestation06
colnames(AnimalBehavior)
AnimalBehavior$Gestation <- as.numeric(AnimalBehavior$Gestation)
AnimalBehavior$Animal <- as.character(AnimalBehavior$Animal)
AnimalBehavior$Gestation <- as.numeric(AnimalBehavior$Gestation)
AnimalBehavior <- tbl_df(AnimalBehavior)
AnimalBehavior$Animal <- as.character(AnimalBehavior$Animal)
AnimalBehavior$Gestation <- as.numeric(AnimalBehavior$Gestation)
View(Gestation06)
View(Gestation06)
AnimalBehavior$Longevity <- as.numeric(AnimalBehavior$Longevity)
AnimalBehavior <- Gestation06
AnimalBehavior <- tbl_df(AnimalBehavior)
AnimalBehavior$Animal <- as.character(AnimalBehavior$Animal)
AnimalBehavior$Gestation <- as.numeric(AnimalBehavior$Gestation)
ggplot(AnimalBehavior, aes(Animal, Gestation)) + geom_point()
ggplot(AnimalBehavior, aes(Animal, Longevity)) + geom_point()
library(caret)
Summary (AnimalBehavior)
AnimalBehaviorNewVersion <- Gestation06
AnimalBehaviorNewVersion <- AnimalBehavior
AnimalBehaviorNewVersion$GestationInyears <- AnimalBehavior$Gestationd/365
View(AnimalBehaviorNewVersion)
AnimalBehaviorNewVersion$GestationInyears <- AnimalBehavior$Gestation/365
AnimalBehaviorVersiontransform <-AnimalBehavior
AnimalBehaviorVersiontransform <- transform(AnimalBehaviorVersiontransform,
GestationInyears = Gestation/365)
```

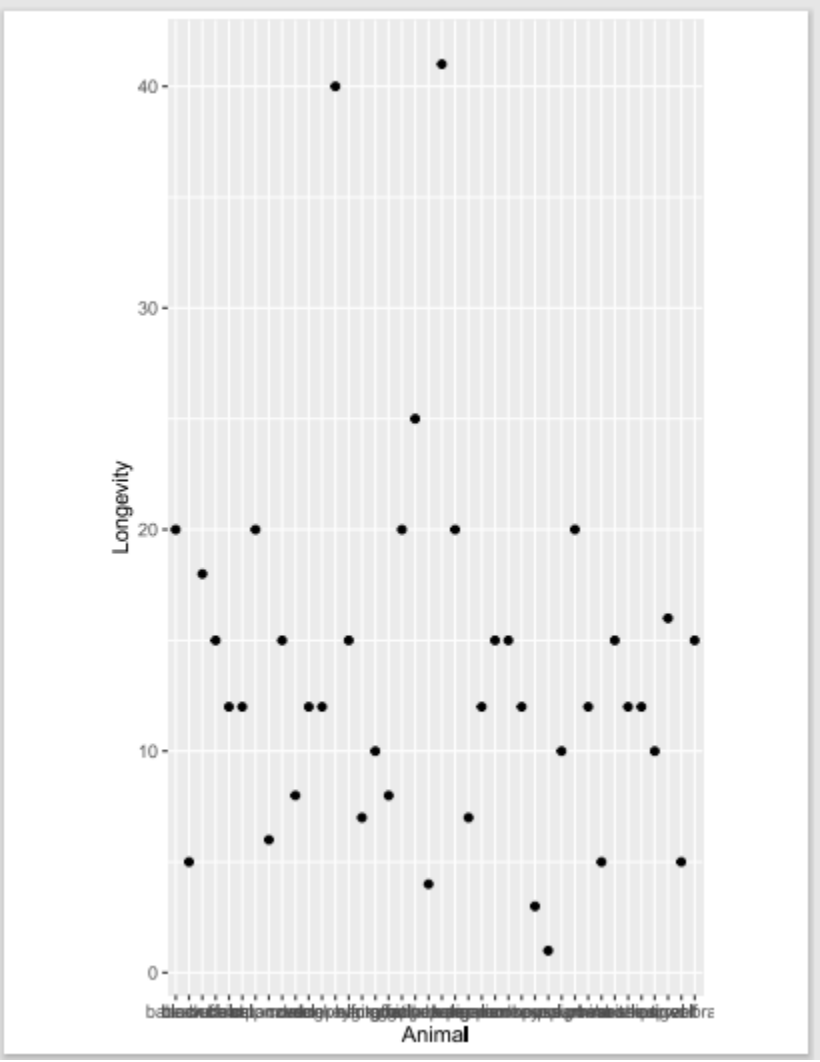
Animal – Categorical Gestation and Longevity – Quantitative



Gestation Scatter plot

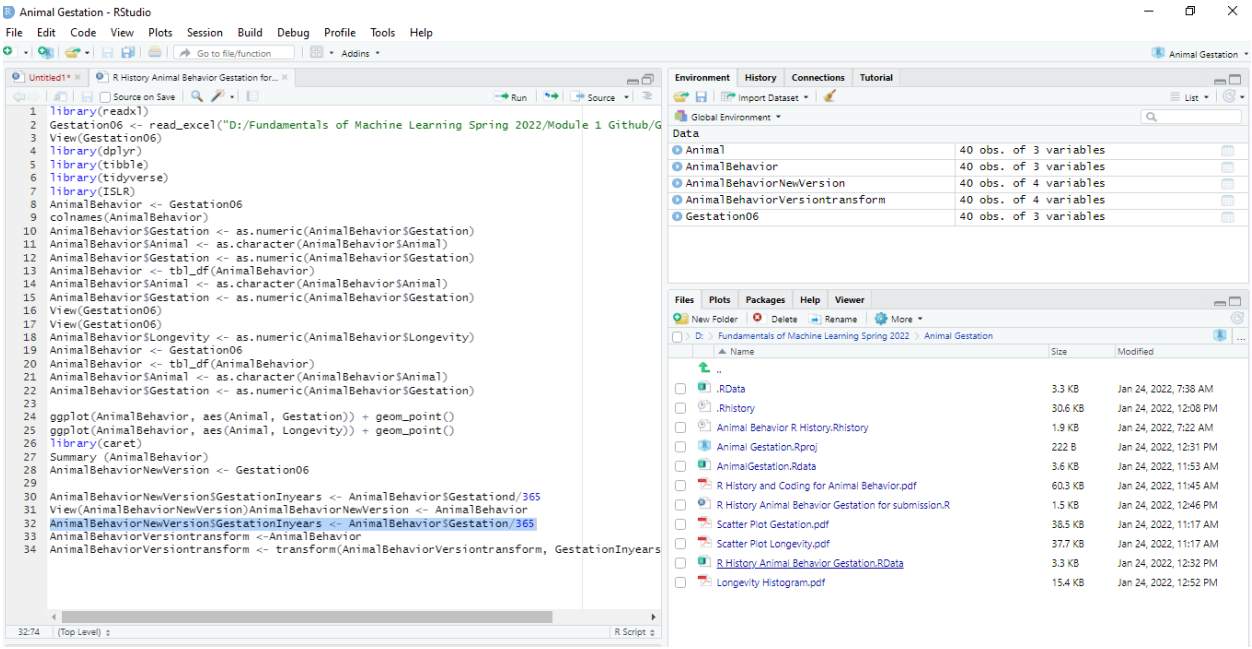


Longevity Scatter plot



AnimalBehaviorNewVersion$GestationInyears <- AnimalBehavior$Gestationd/365

AnimalBehaviorVersiontransform <- transform(AnimalBehaviorVersiontransform, GestationInyears = Gestation/365


Animal Gestation - RStudio
File Edit Code View Plots Session Build Debug Profile Tools Help
Untitled1*
R History Animal Behavior Gestation for...
Source on Save
Run
Source
1 library(readxl)
2 Gestation06 <- read_excel("D:/Fundamentals of Machine Learning Spring 2022/Module 1 Github/G
3 View(Gestation06)
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23
24 ggplot(AnimalBehavior, aes(Animal, Gestation)) + geom_point()
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26 library(caret)
27 Summary (AnimalBehavior)
28 AnimalBehaviorNewVersion <- Gestation06
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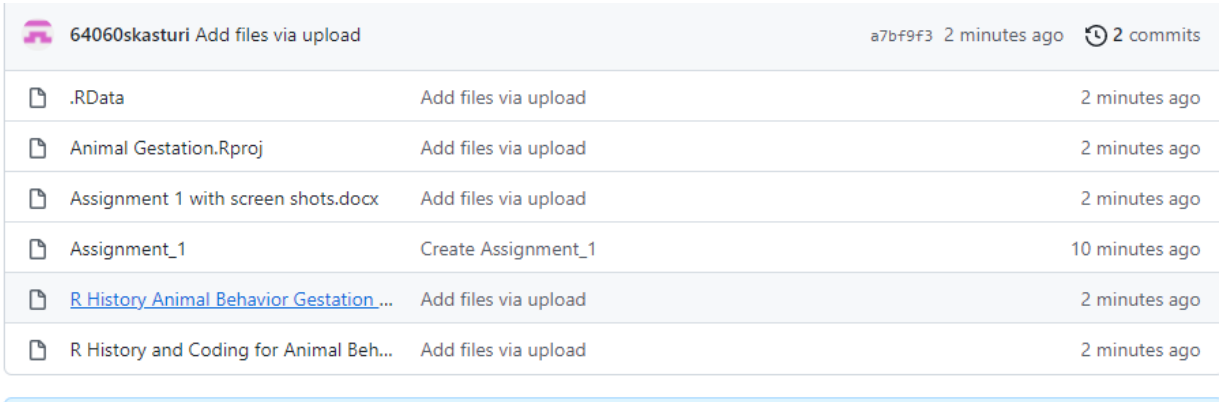
30 AnimalBehaviorNewVersion$GestationInyears <- AnimalBehavior$Gestationd/365
31 View(AnimalBehaviorNewVersion)AnimalBehaviorNewVersion <- AnimalBehavior
32 AnimalBehaviorNewVersion$GestationInyears <- AnimalBehavior$Gestation/365
33 AnimalBehaviorVersiontransform <-AnimalBehavior
34 AnimalBehaviorVersiontransform <- transform(AnimalBehaviorVersiontransform, GestationInyears
32:74 (Top Level)
R Script
Environment History Connections Tutorial
Import Dataset
List
Global Environment
Data
Animal 40 obs. of 3 variables
AnimalBehavior 40 obs. of 3 variables
AnimalBehaviorNewVersion 40 obs. of 4 variables
AnimalBehaviorVersiontransform 40 obs. of 4 variables
Gestation06 40 obs. of 3 variables
Files Plots Packages Help Viewer
New Folder
Delete
Rename
More
D: Fundamentals of Machine Learning Spring 2022 Animal Gestation
Name
Size
Modified
.RData 3.3 KB Jan 24, 2022, 7:38 AM
.Rhistory 30.6 KB Jan 24, 2022, 12:08 PM
Animal Behavior R History.Rhistory 1.9 KB Jan 24, 2022, 7:22 AM
Animal Gestation.Rproj 222 B Jan 24, 2022, 12:31 PM
AnimalGestation.Rdata 3.6 KB Jan 24, 2022, 11:53 AM
R History and Coding for Animal Behavior.pdf 60.3 KB Jan 24, 2022, 11:45 AM
R History Animal Behavior Gestation for submission.R 1.5 KB Jan 24, 2022, 12:46 PM
Scatter Plot Gestation.pdf 38.5 KB Jan 24, 2022, 11:17 AM
Scatter Plot Longevity.pdf 37.7 KB Jan 24, 2022, 11:17 AM
R History Animal Behavior Gestation.RData 3.3 KB Jan 24, 2022, 12:32 PM
Longevity Histogram.pdf 15.4 KB Jan 24, 2022, 12:52 PM


64060skasturi Add files via upload
a7bf9f3 2 minutes ago
2 commits
.RData Add files via upload 2 minutes ago
Animal Gestation.Rproj Add files via upload 2 minutes ago
Assignment 1 with screen shots.docx Add files via upload 2 minutes ago
Assignment_1 Create Assignment_1 10 minutes ago
R History Animal Behavior Gestation ... Add files via upload 2 minutes ago
R History and Coding for Animal Beh... Add files via upload 2 minutes ago