Computer Lab 8: Regression modelling

C91AR: Advanced Statistics using R

Dr Peter E McKenna

2025-03-12

Contents

1 Setup code

```
# change output format
options(scipen = 999)

# set the seed
set.seed(453)

# load packages
pacman::p_load(corrr,
               tidyverse,
               psych,
               tidyplots)
```

2 Outline for today's session

Using the slides from Monday..

- develop a regression model for for either the
  - "fathers_son_height.csv"
  - "mother_daughter_height.csv"
- Use the dataset **that you did NOT simulate last Thursday**
- Use mathematics notation in your report

3 Futher instructions

- See my Markdown doc for Monday's lecture on Github to familiarise yourself with the notation format using $ wrappers. These are to be written in the regular text sections of your Markdown document.
- Check your model against the results of running the model using `lm(DV ~ IV, data = data)`
- Once you have created your model, predict a new value for
  - a parent's height based on their child's height
  - a child's height based on their parent's height
- Visualise the data with a regression line to check that your predicted values fall within the model's parameters.

4 As always

- Annotate and comment your report
- Ask for help if you need it
- Take. Your. Time.