K-Pop Data Analysis

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Test citation (Chai, 2024)

1 Executive Summary

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Disclaimer

The opinions and views expressed in this manuscript are those of the author, and do not necessarily state or reflect those of any institution or government entity.

2 Introduction

How the author got interested in K-Pop music (Korean popular music):

Tzuyu (Chou Tzu-Yu, 周子瑜)[1]

(a lot more content here)

Important: Write about the K-Pop scandal revealed in 2019 and later.

2.1 Read in the Idol School Dataset

Idol School (偶像學校) (2017)

Motivation: One of the contestants, Snowbaby (蔡瑞雪),[2] is originally from Taiwan.

```
library(readxl)
idol_school = read_excel("UNFINISHED_Idol_School_Dataset.xlsx",
                         sheet="Idol_School_Dataset")

# Date of birth (DOB) should be date only, not a full timestamp.
idol_school$DOB = as.Date(idol_school$DOB)
```

[1] https://en.wikipedia.org/wiki/Tzuyu
[2] Snowbaby's YouTube channel: https://www.youtube.com/@snowbaby

```
columns_to_show = c("Name_Chn", "Name_Eng", "DOB",
                    "Vocal", "Dance", "Physical",
                    "Overall", "Ability_Rank")

idol_school[1:10, columns_to_show]
```

```
## # A tibble: 10 x 8
##    Name_Chn Name_Eng       DOB        Vocal Dance Physical Overall Ability_Rank
##    <chr>    <chr>          <date>     <dbl> <dbl>    <dbl>   <dbl>        <dbl>
##  1 NATTY    NATTY          2002-05-30   9.8   8        8.1    8.63            1
##  2 劉怡伶   Tasha          1993-10-11   8     9.5      8      8.5             2
##  3 李采映   Lee Chae Young 2000-05-14   8.5   8.5      7.5    8.17            3
##  4 宋河英   Song Ha Young  1997-09-29   8.6   5.9      9.8    8.1             4
##  5 金恩書   Kim Eun Suh    2000-11-14   6.3   6.9     10      7.73            5
##  6 金明智   Kim Myong Ji   1997-10-09   5.5   7.9      8.2    7.2             6
##  7 張圭悧   Jang Gyuri     1997-12-27   7.2   7.1      7      7.1             7
##  8 朴宣     Park Sun       2004-05-25   9.5   6.1      5.5    7.03            8
##  9 李悠汀   Lee Yoo Jeong  1997-02-26   5.8   6.2      9      7               9
## 10 金娜妍   Kim Na Yeon    1996-05-15   8.3   6        6.4    6.9            10
```

2.2 Idol School: Additional Resources

Students who were eliminated from the show:
https://www.ptt.cc/bbs/fromis_9/M.1555819461.A.C73.html

Someone else used random forests to predict the final ranking:
https://shavid.pixnet.net/blog/post/331691281

2.3 Read in the Produce 48 Dataset

Produce 48 dataset (2018)

```
produce_48_data = read_excel("UNFINISHED_Idol_School_Dataset.xlsx",
                             sheet="Produce_48_Dataset")

# Date of birth (DOB) should be date only, not a full timestamp.
produce_48_data$DOB = as.Date(produce_48_data$DOB)

# UNFINISHED:
# Decide on which columns and rows to show here.

produce_48_data
```

```
## # A tibble: 20 x 9
##    Name_Chn Name_Eng        DOB        First_Eval Second_Eval Country Final_Rank
##    <chr>    <chr>           <date>     <chr>      <chr>       <chr>        <dbl>
##  1 張員瑛   Jang Won Young  2004-08-31 B          B           Korea            1
##  2 宮脇咲良 Miyawaki Sakura 1998-03-19 A          A           Japan            2
##  3 曹柔理   Jo Yuri         2001-10-22 A          F           Korea            3
##  4 <NA>     <NA>            NA         <NA>       <NA>        Korea            4
##  5 <NA>     <NA>            NA         <NA>       <NA>        Korea            5
```

```
##  6 矢吹奈子 Yabuki Nako     2001-06-18 F          A          Japan            6
##  7 <NA>     <NA>            NA         <NA>       <NA>       Korea            7
##  8 <NA>     <NA>            NA         <NA>       <NA>       Korea            8
##  9 <NA>     <NA>            NA         <NA>       <NA>       Japan            9
## 10 <NA>     <NA>            NA         <NA>       <NA>       Korea           10
## 11 <NA>     <NA>            NA         <NA>       <NA>       Korea           11
## 12 <NA>     <NA>            NA         <NA>       <NA>       Korea           12
## 13 <NA>     <NA>            NA         <NA>       <NA>       Korea           13
## 14 <NA>     <NA>            NA         <NA>       <NA>       Korea           14
## 15 <NA>     <NA>            NA         <NA>       <NA>       <NA>            15
## 16 <NA>     <NA>            NA         <NA>       <NA>       <NA>            16
## 17 <NA>     <NA>            NA         <NA>       <NA>       <NA>            17
## 18 <NA>     <NA>            NA         <NA>       <NA>       <NA>            18
## 19 <NA>     <NA>            NA         <NA>       <NA>       <NA>            19
## 20 <NA>     <NA>            NA         <NA>       <NA>       <NA>            20
##    Round_Eliminated Special_Notes
##    <chr>            <lgl>
##  1 Survived         NA
##  2 Survived         NA
##  3 Survived         NA
##  4 Survived         NA
##  5 Survived         NA
##  6 Survived         NA
##  7 Survived         NA
##  8 Survived         NA
##  9 Survived         NA
## 10 Survived         NA
## 11 Survived         NA
## 12 Survived         NA
## 13 <NA>             NA
## 14 <NA>             NA
## 15 <NA>             NA
## 16 <NA>             NA
## 17 <NA>             NA
## 18 <NA>             NA
## 19 <NA>             NA
## 20 <NA>             NA
```

3 Tentative Placeholders

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3.1 Test for Non-English Characters

CJK = Chinese, Japanese, Korean

Chinese example

RStudio 有辦法打中文嗎？

```
print(" 大家好，很高興能認識你們！")
```

```
## [1] "大家好，很高興能認識你們！"
```

Japanese example

思い出にするにはまだ早すぎる

```
print(" みやわき さくら")
```

```
## [1] "みやわき さくら"
```

```
print(" 宮脇 咲良")
```

```
## [1] "宮脇 咲良"
```

This template does not support Korean characters yet.

3.2 R Markdown Narrative

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.

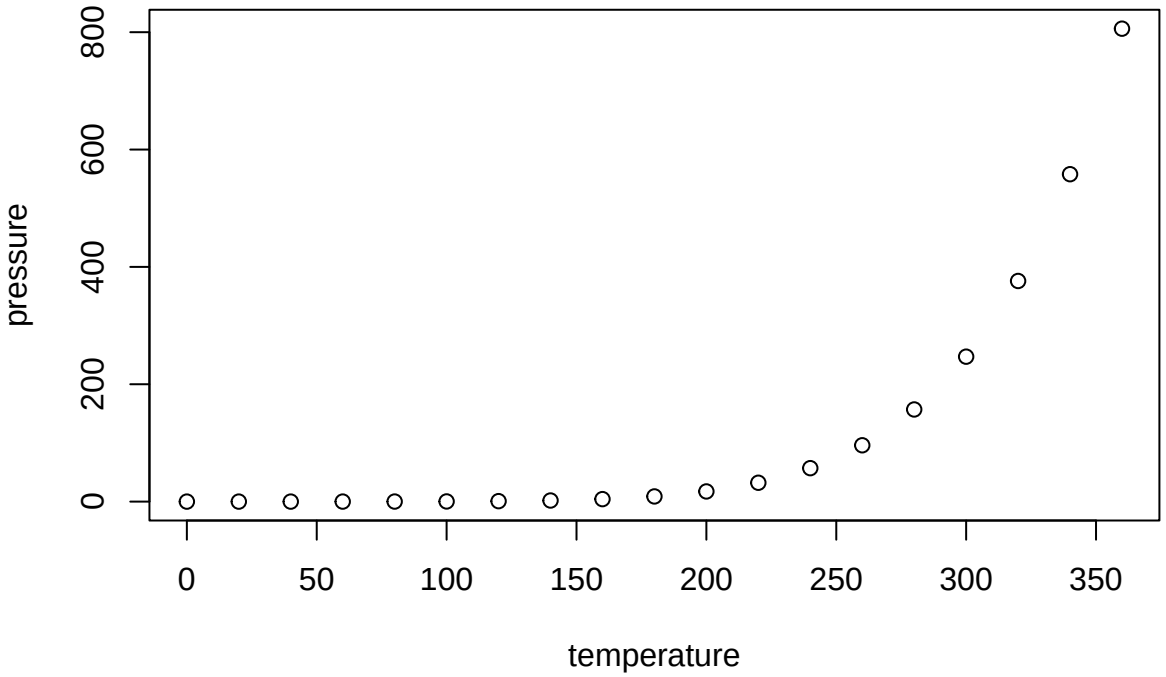
When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
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
```

3.3 Including Plots

You can also embed plots, for example:



Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.

Acknowledgments

Write something here

References

Chai, C. P. (2024). Statistical analysis of high school and college entrance exam scores in Taiwan with online data. *Preprint on ResearchGate*. http://dx.doi.org/10.13140/RG.2.2.29468.91520/1.