# **Project Proposal**

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```
library(tidyverse)
library(tidymodels)
library(patchwork)
library(ggplot2)
install.packages("psych")
library(psych)
install.packages("readxl")
library(readxl)
```

#### Introduction

# **Data description**

```
California_incarceration_rate_data <- read_excel("data/California incarceration rate data.xl

ZIPCodeData2022_1_ <- read_excel("data/ZIPCodeData2022 (1).xlsx")

#renaming the columns
California_incarceration_rate_data <- California_incarceration_rate_data %>%
mutate(zip_code = `California ZIP codes `)

ZIPCodeData2022_1_ <- ZIPCodeData2022_1_ %>%
mutate(zip_code = `ZIP Code`) %>%
mutate(zip_code = as.numeric(zip_code))
```

```
joined_data <- full_join(California_incarceration_rate_data, ZIPCodeData2022_1_, by = "zip_ce")</pre>
```

```
#make sure that the zip codes are not repeated in either dataset
joined_data_clean <- joined_data %>%
    drop_na() %>%
    nrow() %>%
    print()
```

[1] 1594

```
joined_data %>%
  nrow()
```

[1] 1986

# **Exploratory data analysis**

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## **Analysis approach**

...

### **Data dictionary**

The data dictionary can be found here [Update the link and remove this note!]