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# Yannique Hecht
# Harvardx: PH125.2 - (2) Data Science: Visualization
# SECTION 1: INTRO TO DATA VISUALIZATION & DISTRIBUTIONS
# ASSESSMENTS
```

```
# # # ASSESSMENT 1.1: DATA TYPES
```

```
# # EXERCISE 1 - VARIABLE NAMES
```

```
[REDACTED]
```

```
# # EXERCISE 2 - VARIABLE TYPE
```

```
# # EXERCISE 3 - NUMERICAL VALUES
```

```
[REDACTED]
```

```
# # EXERCISE 4 - TABLES
```

```
[REDACTED]
```

```
# # EXERCISE 5 - INDICATOR VARIABLES
```

```
[REDACTED]
```

```
# # EXERCISE 6 - DATA TYPES - HEIGHTS
```

```
# # # ASSESSMENT 1.2: DISTRIBUTIONS
```

```
# # # ASSESSMENT 1.2: NORMAL DISTRIBUTION
```

```
# # EXERCISE 1 - PROPORTIONS
```

```
[REDACTED]
```

## ``` # # EXERCISE 2 - AVERAGES & STANDARD DEVIATIONS ```

```
[REDACTED]
```

## ``` # # EXERCISE 3 - APPROXIMATIONS ```

```
[REDACTED]
```

## ``` # # EXERCISE 4 - 7 FOOTERS & THE NBA ```

```
# use pnorm to calculate the proportion over 7 feet (7*12 inches)
```

```
[REDACTED]
```

## ``` # # EXERCISE 5 - ESTIMATING THE NUMBER 7 FOOTERS ```

```
[REDACTED]
```

## ``` # # EXERCISE 6 - HOW MANY 7 FOOTERS ARE IN THE NBA? ```

```
[REDACTED]
```

# # EXERCISE 7 - LEBRON JAMES' HEIGHT

## Change the solution to previous answer

[REDACTED]

# # EXERCISE 8 - INTERPRETATION

# # # ASSESSMENT 1.3: QUANTILES, PERCENTILES & BOXPLOTS

# # EXERCISE 1 - VECTOR LENGTHS

[REDACTED]

# # EXERCISE 2 - PERCENTILES

[REDACTED]

# # EXERCISE 3 - INTERPRETING BOXPLOTS - 1

# # EXERCISE 4 - INTERPRETING BOXPLOTS - 2

# # EXERCISE 5 - INTERPRETING BOXPLOTS - 3

# # EXERCISE 6 - LOW QUANTILES

# # EXERCISE 7 - INTERQUANTILE RANGE (IQR)

# ### ASSESSMENT 1.4: EXPLORATORY DATA ANALYSIS - ROBUST SUMMARIES WITH OUTLIERS

## ## EXERCISE 1 - EXXPLORING GALTON DATASET - AVERAGE & MEDIAN



## ## EXERCISE 2 - EXPLORING GALTON DATASET - SD & MAD



## ## EXERCISE 3 - ERROR IMPACT ON AVERAGE



## ## EXERCISE 4 - ERROR IMPACT ON SD



## ## EXERCISE 5 - ERROR IMPACT ON MEDIAN



# # EXERCISE 6 - ERROR IMPACT ON MAD

[REDACTED]

# # EXERCISE 7 - USEFULNESS OF EDA

# # EXERCISE 8 - USING EDA TO EXPLORE CHANGES