# Statistical Report

#### 1. Question

Is there a significant difference in weight between Group A and Group B?

#### 2. Data Summary

```
• Total Rows: 6
• Columns:
```

```
summarytools::dfSummary(data)
## Error in match.call(f, call): ... used in a situation where it does not exist
## Warning in parse_call(mc = match.call(),
## var_name = get_var_info, var_label =
## get_var_info, : metadata extraction
## terminated unexpectedly; inspect results
## carefully
## Data Frame Summary
## Dimensions: 6 x 2
## Duplicates: 0
##
      Variable Stats / Values Freqs (% of Valid) Graph
                                                                   Valid Missing
                                         3 (50.0%)
## 1
       Group
                                                            IIIIIIIII
##
       [character] 2. B
                                         3 (50.0%)
                                                            IIIIIIIII
                                                                         (100.0%)
                                                                                    (0.0\%)
##
## 2
      Weight
                   Mean (sd): 11.5 (0.8) 10.50: 1 (16.7%)
                                                            III
                                         10.80 : 1 (16.7%)
                                                                          (100.0\%)
                                                                                    (0.0\%)
##
       [numeric]
                   min < med < max:
                                                            III
                   ##
                                                            III
```

12.10 : 1 (16.7%)

12.50 : 1 (16.7%)

III

III

#### 3. Test Performed

Independent t-test

##

##

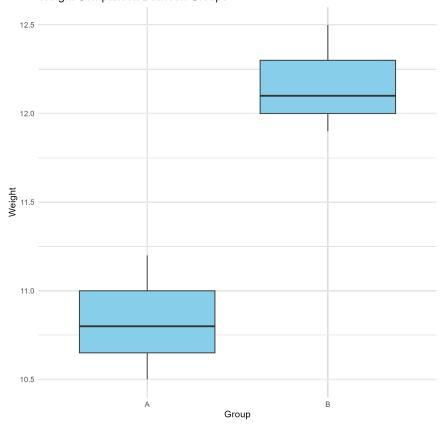
#### 4. Statistical Output

```
print(test_result)
```

```
##
## Welch Two Sample t-test
##
## data: Weight by Group
## t = -4.9614, df = 3.9248, p-value =
## 0.008086
## alternative hypothesis: true difference in means between group A and group B is not equal to 0
## 95 percent confidence interval:
## -2.0851561 -0.5815106
## sample estimates:
## mean in group A mean in group B
## 10.83333 12.16667
```

#### 5. Graph





### 6. AI Interpretation (by GPT-4)

Based on the t-test, there is a significant difference in average weight between Group A and Group B. The result suggests this difference is unlikely to be due to chance.

## 7. Conclusion

The difference is statistical	ly significant.	We reject the null hyp	pothesis.

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