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Q3.

Ans -> we're using here titanic dataset to analysis.

load data:

=> `titanic <- read.csv("c:/user/Desktop/titanic.csv", header = TRUE, sep = ",", as.is = TRUE)`

Peek at your data:

=> `view(titanic)`

This help us to familiarising

=> `head(titanic, 10)`

return first 10 rows.

=> `tail(titanic, 10)`

return Bottom, 10 rows.

=> `names(titanic)`

This help us in checking out all the variables in the data set.

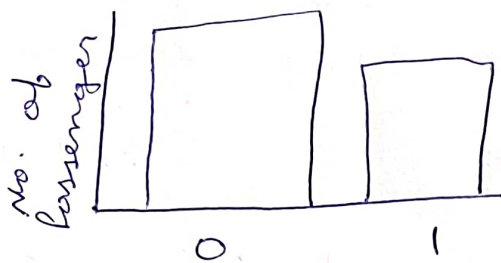
=> `summary(titanic)`

It is one of the most important function that help in summarising each attribute in the dataset.

Analysis & visualisation:

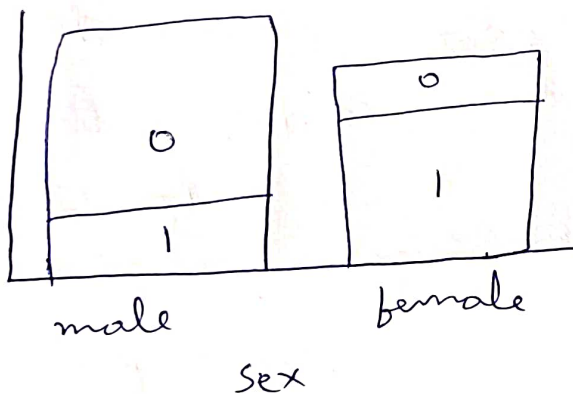
- Survival rate:

```
ggplot(titanic, aes(x=survived)) + geom_bar()
```



Survived
0
1

- Survival rate based gender:



```
ggplot(titanic, aes(x=sex, fill=survived)) + theme_bw() +  
  geom_bar() + labs(y="Name of passengers",  
    title="Survival Rate of Gender")
```

- Distribution of fare rate:

```
hist(titanic$fare, main="fare per person", xlab="Fare",  
  col="grey", breaks=40, xlim=(10, 300)).
```

24.

Ans → Descriptive statistics:

Summary: Gives us the descriptive states like.

In case of Numerical data: -

Give Mean, mode, median range.

measure of central tendency: -

⇒ mean (titanic \$ fare)

32.20421

⇒ mode (titanic \$ age)

24

⇒ median (train \$ fare)

14.542.

Measure of spread: -

⇒ range (titanic \$ fare)

0.000 512.3292.

[It show lowest and highest value of fare] .

⇒ var (titanic \$ fare)

2469.437.

⇒ sqrt (var (titanic \$ fare))

49.69343

Inferential statistics: .

Hypothesis Testing: .

```
new_data <- subset(titanic, titanic$fore == 1)
```

```
z.test = function(a, b, n){
```

```
  sample.mean = mean(a)
```

```
  pop.mean = mean(b)
```

```
  z c = nrow(n)
```

```
  var.b = var(b)
```

```
  zeta = (sample.mean - pop.mean) / sqrt(var.b/c)]
```

```
  return: zeta.
```

```
# call function.
```

```
z.test(new_data$survived, titanic$survived,  
       new_data)
```

```
7.423828 .
```