1. Continuous Numeric Data

ID	Age	Height	Weight
1	25	175	70
2	30	180	80
3	28	170	65
4	35	165	75
5	40	185	90

- Create a scatter plot between Age and Weight.
- Generate a histogram of Height.
- Plot a line chart showing changes in Weight over IDs.
- Create a box plot of Age.
- Create a density plot of Height.

R Program:-

```
# Data

id <- c(1, 2, 3, 4, 5)

age <- c(25, 30, 28, 35, 40)

height <- c(175, 180, 170, 165, 185)

weight <- c(70, 80, 65, 75, 90)

# Scatter plot between Age and Weight

plot(age, weight, main="Age vs Weight", xlab="Age", ylab="Weight", pch=19)

# Histogram of Height

hist(height, main="Histogram of Height", xlab="Height", breaks=seq(min(height), max(height), length.out=6))

# Line chart showing changes in Weight over IDs

plot(id, weight, type="l", main="Line plot for the Weight Changes over IDs", xlab="ID", ylab="Weight")

# Box plot of Age

boxplot(age, main="Box Plot of Age", ylab="Age")

# Density plot of Height

plot(density(height), main="Density Plot of Height", xlab="Height")
```

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2.1.R

```r
# Data
id <- c(1, 2, 3, 4, 5)
age <- c(25, 30, 28, 35, 40)
height <- c(175, 180, 170, 165, 185)
weight <- c(70, 80, 65, 75, 90)

# Scatter plot between Age and Weight
plot(age, weight, main="Age vs Weight", xlab="Age", ylab="Weight", pch=19)

# Histogram of Height
hist(height, main="Histogram of Height", xlab="Height", breaks=seq(min(height), max(height), length.out=6))

# Line chart showing changes in Weight over IDs
plot(id, weight, type="l", main="Line plot for the Weight Changes over IDs", xlab="ID", ylab="Weight")

# Box plot of Age
boxplot(age, main="Box Plot of Age", ylab="Age")

# Density plot of Height
plot(density(height), main="Density Plot of Height", xlab="Height")
```

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Values

age	num [1:5] 25 30 28 35 40
height	num [1:5] 175 180 170 165 185
id	num [1:5] 1 2 3 4 5
weight	num [1:5] 70 80 65 75 90

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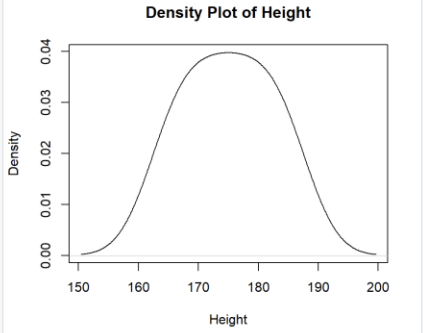

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```
> plot(id, weight, type="l", main="Line plot for the Weight Changes over IDs", xlab="ID", ylab="Weig ..." ...
[TRUNCATED]

> # Box plot of Age
> boxplot(age, main="Box Plot of Age", ylab="Age")

> # Density plot of Height
> plot(density(height), main="Density Plot of Height", xlab="Height")
>
```

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2.1.R

```r
# Data
id <- c(1, 2, 3, 4, 5)
age <- c(25, 30, 28, 35, 40)
height <- c(175, 180, 170, 165, 185)
weight <- c(70, 80, 65, 75, 90)

# Scatter plot between Age and Weight
plot(age, weight, main="Age vs Weight", xlab="Age", ylab="Weight", pch=19)

# Histogram of Height
hist(height, main="Histogram of Height", xlab="Height", breaks=seq(min(height), max(height), length.out=6))

# Line chart showing changes in Weight over IDs
plot(id, weight, type="l", main="Line plot for the Weight Changes over IDs", xlab="ID", ylab="Weight")

# Box plot of Age
boxplot(age, main="Box Plot of Age", ylab="Age")

# Density plot of Height
plot(density(height), main="Density Plot of Height", xlab="Height")
```

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Values

age	num [1:5] 25 30 28 35 40
height	num [1:5] 175 180 170 165 185
id	num [1:5] 1 2 3 4 5
weight	num [1:5] 70 80 65 75 90

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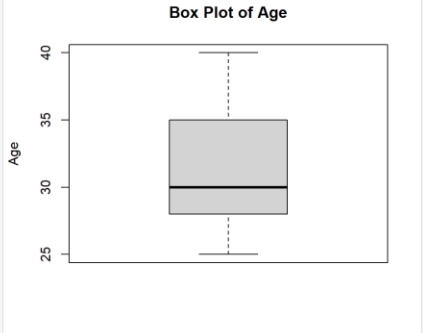

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```
> plot(id, weight, type="l", main="Line plot for the Weight Changes over IDs", xlab="ID", ylab="Weig ..." ...
[TRUNCATED]

> # Box plot of Age
> boxplot(age, main="Box Plot of Age", ylab="Age")

> # Density plot of Height
> plot(density(height), main="Density Plot of Height", xlab="Height")
>
```

RStudio

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2.1.R

```r
# Data
id <- c(1, 2, 3, 4, 5)
age <- c(25, 30, 28, 35, 40)
height <- c(175, 180, 170, 165, 185)
weight <- c(70, 80, 65, 75, 90)

# Scatter plot between Age and Weight
plot(age, weight, main="Age vs Weight", xlab="Age", ylab="Weight", pch=19)

# Histogram of Height
hist(height, main="Histogram of Height", xlab="Height", breaks=seq(min(height), max(height), length.out=6))

# Line chart showing changes in Weight over IDs
plot(id, weight, type="l", main="Line plot for the Weight Changes over IDs", xlab="ID", ylab="Weight")

# Box plot of Age
boxplot(age, main="Box Plot of Age", ylab="Age")

# Density plot of Height
plot(density(height), main="Density Plot of Height", xlab="Height")
```

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Values

age	num [1:5] 25 30 28 35 40
height	num [1:5] 175 180 170 165 185
id	num [1:5] 1 2 3 4 5
weight	num [1:5] 70 80 65 75 90

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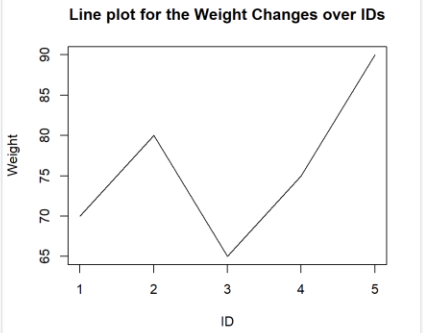

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```
> plot(id, weight, type="l", main="Line plot for the Weight Changes over IDs", xlab="ID", ylab="Weig ..." ...
[TRUNCATED]

> # Box plot of Age
> boxplot(age, main="Box Plot of Age", ylab="Age")

> # Density plot of Height
> plot(density(height), main="Density Plot of Height", xlab="Height")
>
```

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2.1.R

```r
# Data
id <- c(1, 2, 3, 4, 5)
age <- c(25, 30, 28, 35, 40)
height <- c(175, 180, 170, 165, 185)
weight <- c(70, 80, 65, 75, 90)

# Scatter plot between Age and Weight
plot(age, weight, main="Age vs Weight", xlab="Age", ylab="Weight", pch=19)

# Histogram of Height
hist(height, main="Histogram of Height", xlab="Height", breaks=seq(min(height), max(height), length.out=6))

# Line chart showing changes in Weight over IDs
plot(id, weight, type="l", main="Line plot for the Weight Changes over IDs", xlab="ID", ylab="Weight")

# Box plot of Age
boxplot(age, main="Box Plot of Age", ylab="Age")

# Density plot of Height
plot(density(height), main="Density Plot of Height", xlab="Height")
```

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Values

age	num [1:5] 25 30 28 35 40
height	num [1:5] 175 180 170 165 185
id	num [1:5] 1 2 3 4 5
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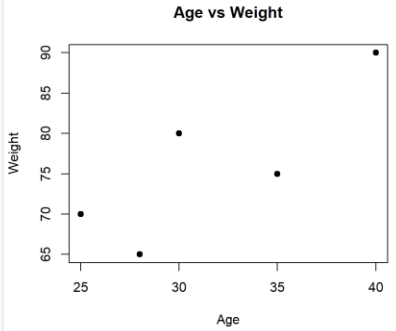

Console | Terminal | Background Jobs

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```
> plot(id, weight, type="l", main="Line plot for the Weight Changes over IDs", xlab="ID", ylab="Weig ..." ...
[TRUNCATED]

> # Box plot of Age
> boxplot(age, main="Box Plot of Age", ylab="Age")

> # Density plot of Height
> plot(density(height), main="Density Plot of Height", xlab="Height")
>
```

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2.1.R

```r
# Data
id <- c(1, 2, 3, 4, 5)
age <- c(25, 30, 28, 35, 40)
height <- c(175, 180, 170, 165, 185)
weight <- c(70, 80, 65, 75, 90)

# Scatter plot between Age and Weight
plot(age, weight, main="Age vs Weight", xlab="Age", ylab="Weight", pch=19)

# Histogram of Height
hist(height, main="Histogram of Height", xlab="Height", breaks=seq(min(height), max(height), length.out=6))

# Line chart showing changes in Weight over IDs
plot(id, weight, type="l", main="Line plot for the Weight Changes over IDs", xlab="ID", ylab="Weight")

# Box plot of Age
boxplot(age, main="Box Plot of Age", ylab="Age")

# Density plot of Height
plot(density(height), main="Density Plot of Height", xlab="Height")
```

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Values

age	num [1:5] 25 30 28 35 40
height	num [1:5] 175 180 170 165 185
id	num [1:5] 1 2 3 4 5
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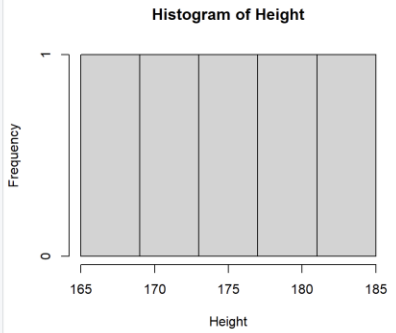
Files | Plots | Packages | Help | Viewer | Presentation



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```
> plot(id, weight, type="l", main="Line plot for the Weight Changes over IDs", xlab="ID", ylab="Weig ..." ...
[TRUNCATED]

> # Box plot of Age
> boxplot(age, main="Box Plot of Age", ylab="Age")

> # Density plot of Height
> plot(density(height), main="Density Plot of Height", xlab="Height")
>
```