

# Tugas Besar Analisis Data Statistika

## Kelompok 6 RB

**Output codeR\_6\_RB :**

### 1. Model 1 : Pengaruh Pendapatan Orang Tua terhadap IPK

- Hasil uji korelasi :

Pearson's product-moment correlation

```
data: df_analisis$Pendapatan_Juta and df_analisis$IPK
t = 0.14194, df = 131, p-value = 0.8873
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
-0.1581601  0.1822426
sample estimates:
cor
0.01240052
```

- Hasil analisis regresi

Call:

```
lm(formula = IPK ~ Pendapatan_Juta, data = df_analisis)
```

Residuals:

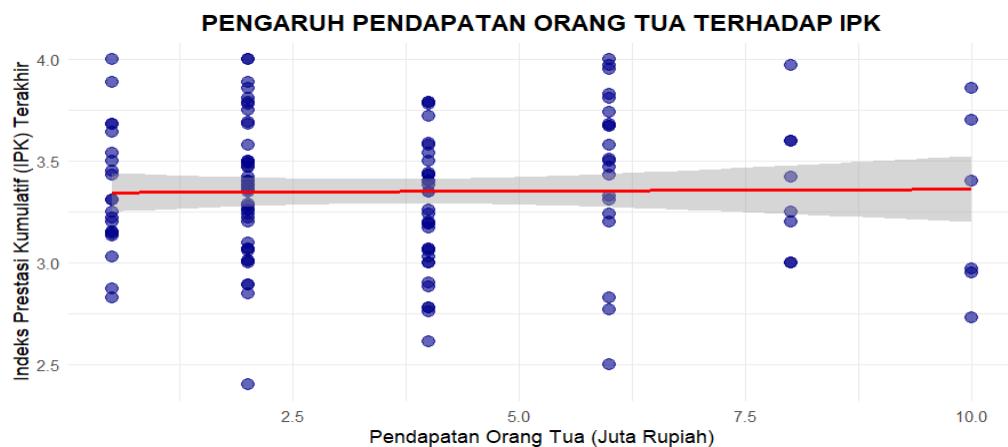
Min	1Q	Median	3Q	Max
-0.94768	-0.24768	0.02232	0.23892	0.65487

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )		
(Intercept)	3.344278	0.052894	63.226	<2e-16 ***		
Pendapatan_Juta	0.001702	0.011988	0.142	0.887		
---						
Signif. codes:	0 ‘***’	0.001 ‘**’	0.01 ‘*’	0.05 ‘.’	0.1 ‘ ’	1

Residual standard error: 0.3472 on 131 degrees of freedom  
Multiple R-squared: 0.0001538, Adjusted R-squared: -0.007479  
F-statistic: 0.02015 on 1 and 131 DF, p-value: 0.8873

- Visualisasi model



## 2. Model 2 : Pengaruh Jarak Tempat Tinggal terhadap IPK

- Hasil uji korelasi :  
Pearson's product-moment correlation

```
data: df_model2$Jarak and df_model2$IPK
t = -2.2174, df = 131, p-value = 0.02832
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
-0.34911818 -0.02063582
sample estimates:
cor
-0.1901945
```

- Hasil analisis regresi :
   
Call:  
`lm(formula = IPK ~ Jarak, data = df_model2)`

Residuals:

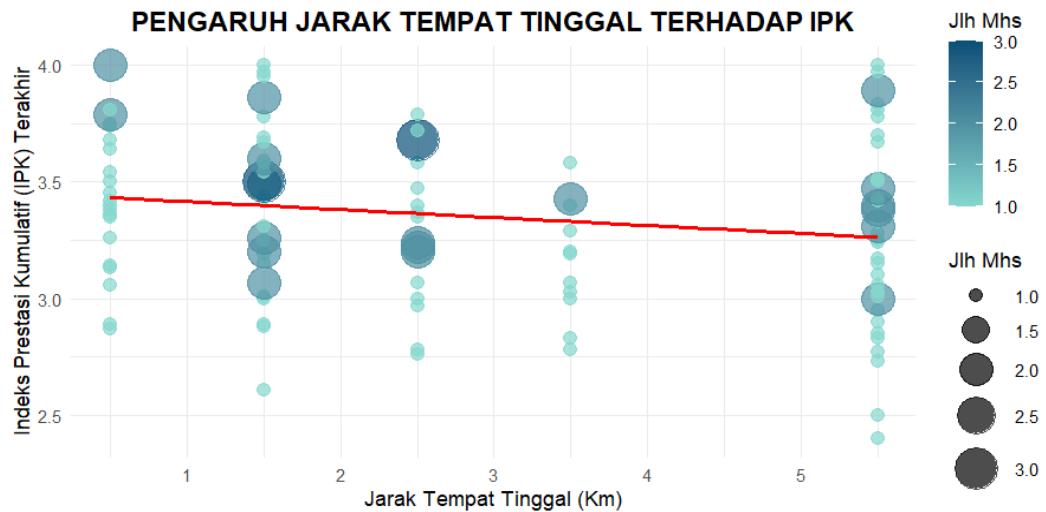
Min	1Q	Median	3Q	Max
-0.86287	-0.24910	0.01713	0.21495	0.73713

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )		
(Intercept)	3.45019	0.05382	64.101	<2e-16 ***		
Jarak	-0.03406	0.01536	-2.217	0.0283 * ---		
Signif. codes:	0 ‘***’	0.001 ‘**’	0.01 ‘*’	0.05 ‘.’	0.1 ‘ ’	1

Residual standard error: 0.3409 on 131 degrees of freedom  
 Multiple R-squared: 0.03617, Adjusted R-squared: 0.02882  
 F-statistic: 4.917 on 1 and 131 DF, p-value: 0.02832

- Visualisasi model :



### 3. Model 3 : Pengaruh Akses Internet (Wifi Pribadi) terhadap IPK

- Hasil uji korelasi :  
Pearson's product-moment correlation

```

data: df_final$Wifi_Pribadi and df_final$IPK
t = 0.10013, df = 131, p-value = 0.9204
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
-0.1617199 0.1787084
sample estimates:
cor
0.00874773
  
```

- Hasil analisis regresi :  
Call:  
lm(formula = IPK ~ Wifi\_Pribadi, data = df\_final)

Residuals:

Min	1Q	Median	3Q	Max
-0.9547	-0.2547	0.0217	0.2353	0.6517

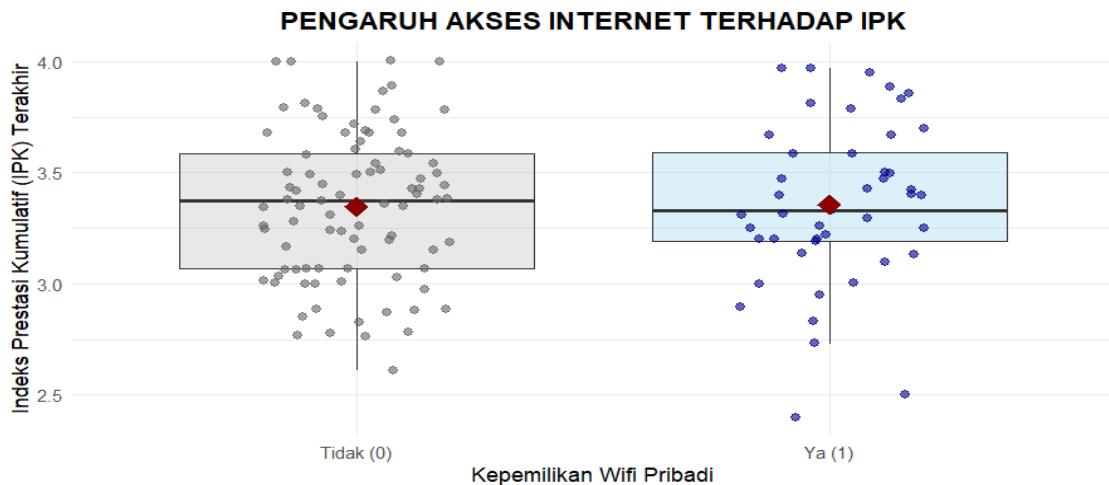
Coefficients:

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	3.348295	0.037013	90.46	<2e-16 ***
Wifi_Pribadi	0.006371	0.063632	0.10	0.92
---				
Signif. codes:	0 ‘***’	0.001 ‘**’	0.01 ‘*’	0.05 ‘.’
	0.1 ‘ ’	1		

Residual standard error: 0.3472 on 131 degrees of freedom  
Multiple R-squared: 7.652e-05, Adjusted R-squared: -0.007556

F-statistic: 0.01003 on 1 and 131 DF, p-value: 0.9204

- Visualisasi model :



#### 4. Model 4 : Analisis Regresi Berganda

- Hasil analisis regresi :

Call:

```
lm(formula = IPK ~ Pendapatan_Juta + Jarak + Wifi_Pribadi, data = df_final)
```

Residuals:

Min	1Q	Median	3Q	Max
-0.86531	-0.22863	0.03623	0.23137	0.74016

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )		
(Intercept)	3.429433	0.064629	53.063	<2e-16 ***		
Pendapatan_Juta	0.005302	0.012584	0.421	0.6742		
Jarak	-0.036620	0.015894	-2.304	0.0228 * Wifi_Pribadi		
	0.066939	0.399	0.6909	0.026679		
---						
Signif. codes:	0 ‘***’	0.001 ‘**’	0.01 ‘*’	0.05 ‘.’	0.1 ‘ ’	1

Residual standard error: 0.3429 on 129 degrees of freedom

Multiple R-squared: 0.03969, Adjusted R-squared: 0.01736

F-statistic: 1.777 on 3 and 129 DF, p-value: 0.1547

- Visualisasi model :

**HEATMAP KORELASI ANTAR VARIABEL/FAKTOR**

