**STUDENT PERFOMANCE DATA**

1. **Academic Performance**

* **How do study time (studytime) and failures (failures) affect final grades (G3)?**

Study time and final grades:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Correlations** | | | | |
|  | | | studytime | G3 |
| Spearman's rho | studytime | Correlation Coefficient | 1.000 | .275\*\* |
| Sig. (2-tailed) | . | .000 |
| N | 651 | 651 |
| G3 | Correlation Coefficient | .275\*\* | 1.000 |
| Sig. (2-tailed) | .000 | . |
| N | 651 | 651 |
| \*\*. Correlation is significant at the 0.01 level (2-tailed). | | | | |

Our correlation coefficient is 0.275(27.5%) showing a positive correlation between study times and grades, which means that as study times increase, grades also increase.

Failures and final grades

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Correlations** | | | | |
|  | | | G3 | failures |
| Spearman's rho | G3 | Correlation Coefficient | 1.000 | -.448\*\* |
| Sig. (2-tailed) | . | .000 |
| N | 651 | 651 |
| failures | Correlation Coefficient | -.448\*\* | 1.000 |
| Sig. (2-tailed) | .000 | . |
| N | 651 | 651 |
| \*\*. Correlation is significant at the 0.01 level (2-tailed). | | | | |

Our spearman correlation coefficient is -0.448(-44.8%) showing a negative correlation.

This means that as the number of failures increases, the final grade reduces.

Study time and failures

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Correlations** | | | | |
|  | | | failures | studytime |
| Spearman's rho | failures | Correlation Coefficient | 1.000 | -.161\*\* |
| Sig. (2-tailed) | . | .000 |
| N | 651 | 651 |
| studytime | Correlation Coefficient | -.161\*\* | 1.000 |
| Sig. (2-tailed) | .000 | . |
| N | 651 | 651 |
| \*\*. Correlation is significant at the 0.01 level (2-tailed). | | | | |

This shows a negative correlation between failures and studytime, which means that as study time reduces, the number of failures increase.

* We can also use multiple regression to check how failures and study time affect
* **Is there a correlation between the grades of the first period (G1), second period (G2), and final period (G3)?**
* **Does parental education level (Mothereducation, Fathereducation) have an impact on the student's grades?**