# Data Mining

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# Gliederung

# Vorverarbeitung

# Rohdatensatz

| gender | race/ethnicity | parental level of education | lunch | test preparation course | math score | reading score | writing score |
|--------|----------------|-----------------------------|-------|------------------------|------------|---------------|---------------|
| female | group B | bachelor's degree | standard | none | 72 | 72 | 74 |
| female | group C | some college | standard | completed | 69 | 90 | 88 |
| female | group B | master's degree | standard | none | 90 | 95 | 93 |
| male | group A | associate's degree | free/reduced | none | 47 | 57 | 44 |

Bild 1: Rohdatensatz
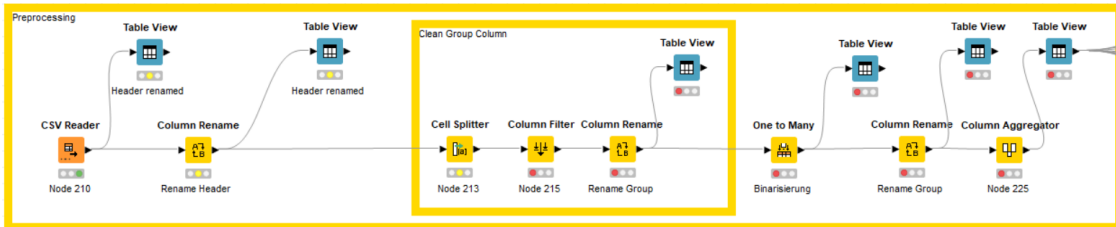
# Datenvorverarbeitung



Bild 2: Knime Workflow zur Vorverarbeitung

| gender | parental education | lunch | preparation | math | reading | writing | group | bachelor | college | master | associate | high school | some high school | standard | nonstandard | none | completed | B | C | A | D | E | Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| female | bachelor's degree | standard | none | 72 | 72 | 74 | B | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 72.6666666666666 |
| female | some college | standard | completed | 69 | 90 | 88 | C | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 82.3333333333333 |
| female | master's degree | standard | none | 90 | 95 | 93 | B | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 92.6666666666666 |
| male | associate's degree | free/reduced | none | 47 | 57 | 44 | A | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 49.3333333333333 |
| male | some college | standard | none | 76 | 78 | 75 | C | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 76.3333333333333 |
| female | associate's degree | standard | none | 71 | 83 | 78 | B | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 77.3333333333333 |

Bild 3: Vorverarbeitete Daten

# Knime Knoten