

SQL Experiment

On sqlite

For INTEGER,

1 row 1 column → 8182 bytes

1 row 100 columns → 8192 bytes

100 rows, 1 column → 8192 bytes

100 rows, 100 columns → 32,768 bytes

1000 rows 1 column → 20,480 bytes

1000 rows 1000 columns → 3,866,624 bytes

1000 rows 1000 columns with index → 3,883,008 bytes

a) $20,480 - 8192 = 12,288$. $12288 / 900 = 13.65$. Around 14 bytes per record

b) $32,768 - 8,192 = 24,576$. $24,576 / 900 =$ Around 27 bytes per column

c) $3,883,008 - 3,866,624 = 16384$. $16384 / 1000 =$ Around 16 bytes overhead per record

For CHAR(1)

1 row 1 column → 8182 bytes

1 row 100 columns → 8192 bytes

100 rows, 1 column → 8192 bytes

100 rows, 100 columns → 40,960 bytes

1000 rows 1 column → 20,480 bytes

1000 rows 1000 columns → 4,112,384 bytes

1000 rows 1000 columns with index → 4,128,768 bytes

a) $20,480 - 8192 = 12,288$. $12288 / 900 = 13.65$. Around 14 bytes per record

b) $40,960 - 8,192 = 32768$. $32768 / 900 =$ Around 36 bytes per column

c) $4,128,768 - 4,112,384 = 16384$. $16384 / 1000 =$ Around 16 bytes overhead per record

For VARCHAR(1)

1 row 1 column → 8182 bytes

1 row 100 columns → 8192 bytes

100 rows, 1 column → 8192 bytes

1000 rows 1 column → 20,480 bytes

100 rows, 100 columns → 40,960 bytes

1000 rows 1000 columns → 4,116,480 bytes

1000 rows 1000 columns with index → 4,132,864 bytes

a) $20,480 - 8192 = 12,288$. $12288 / 900 = 13.65$. Around 14 bytes per record

b) $40,960 - 8,192 = 32768$. $32768 / 900 =$ Around 36 bytes per column

c) $4,132,864 - 4,116,480 = 16384$. $16384 / 1000 =$ Around 16 bytes overhead per record