

DESIGNING DATA-INTENSIVE APPLICATIONS

B-TREES INDEX



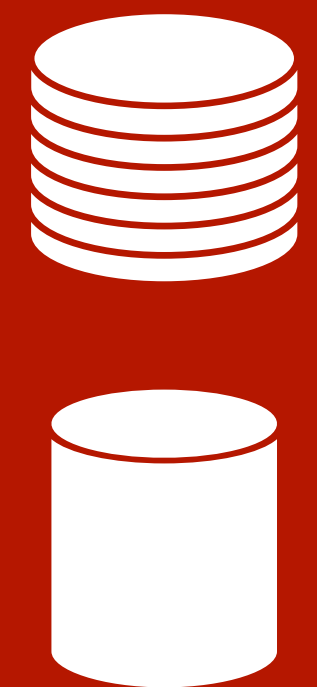
WE HAVE 2 FAMILIES OF STORAGE ENGINES

LOG-STRUCTURED

IMMUTABLE

PAGE ORIENTED

MUTABLE



B-TREES

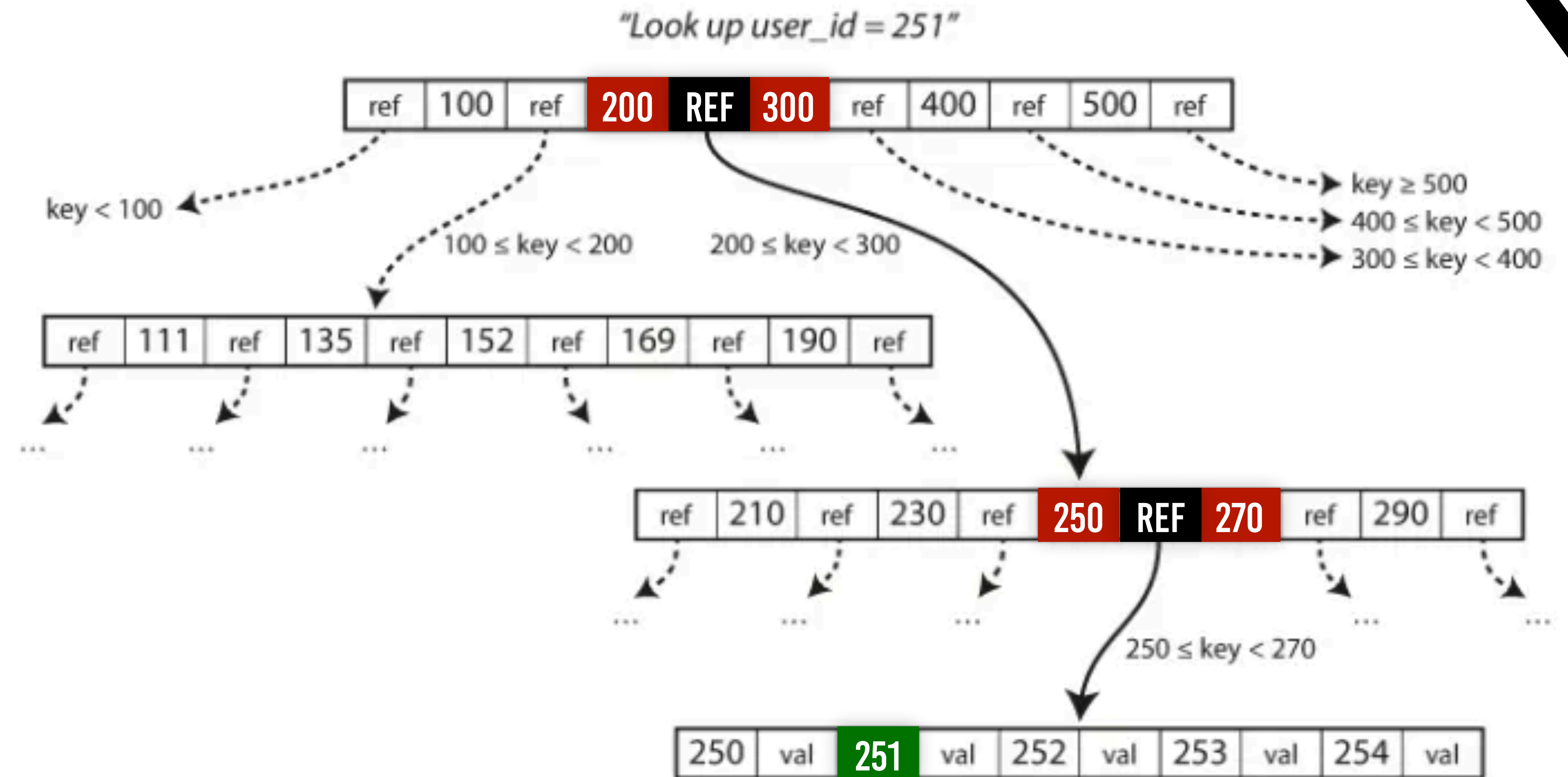
SORTED KEY / VALUE PAIRS

FIXED SIZE BLOCKS / PAGES

ON DISK NOT RAM

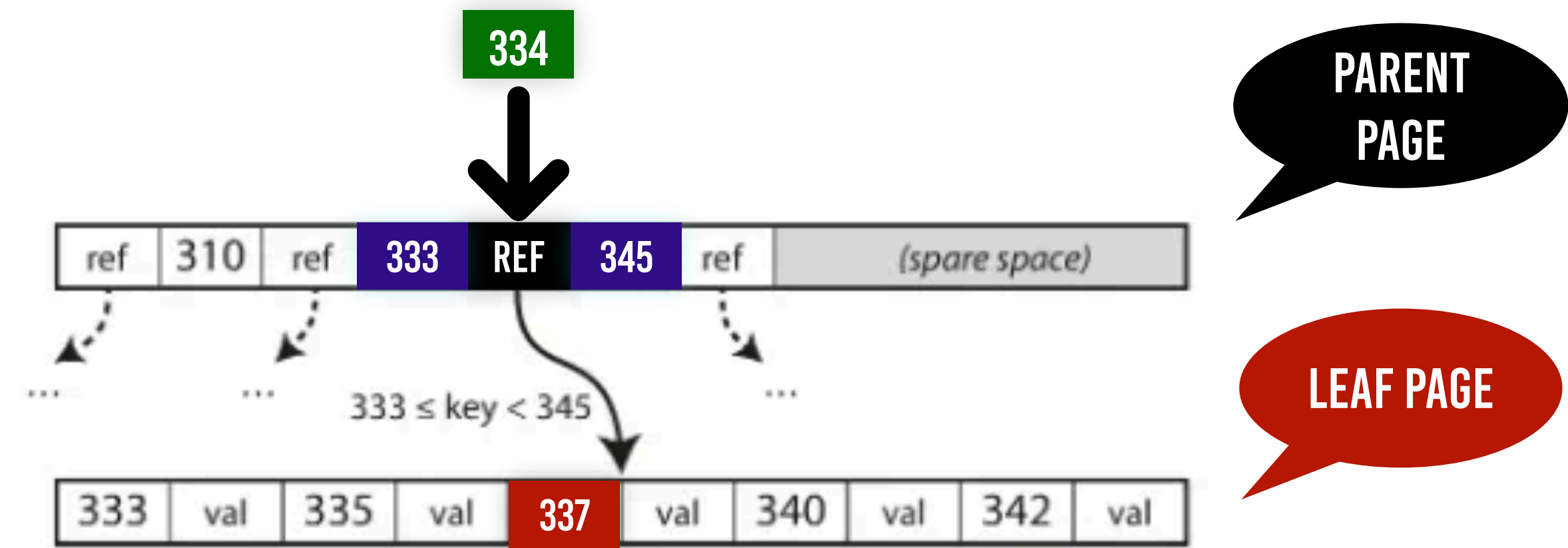


B-TREES

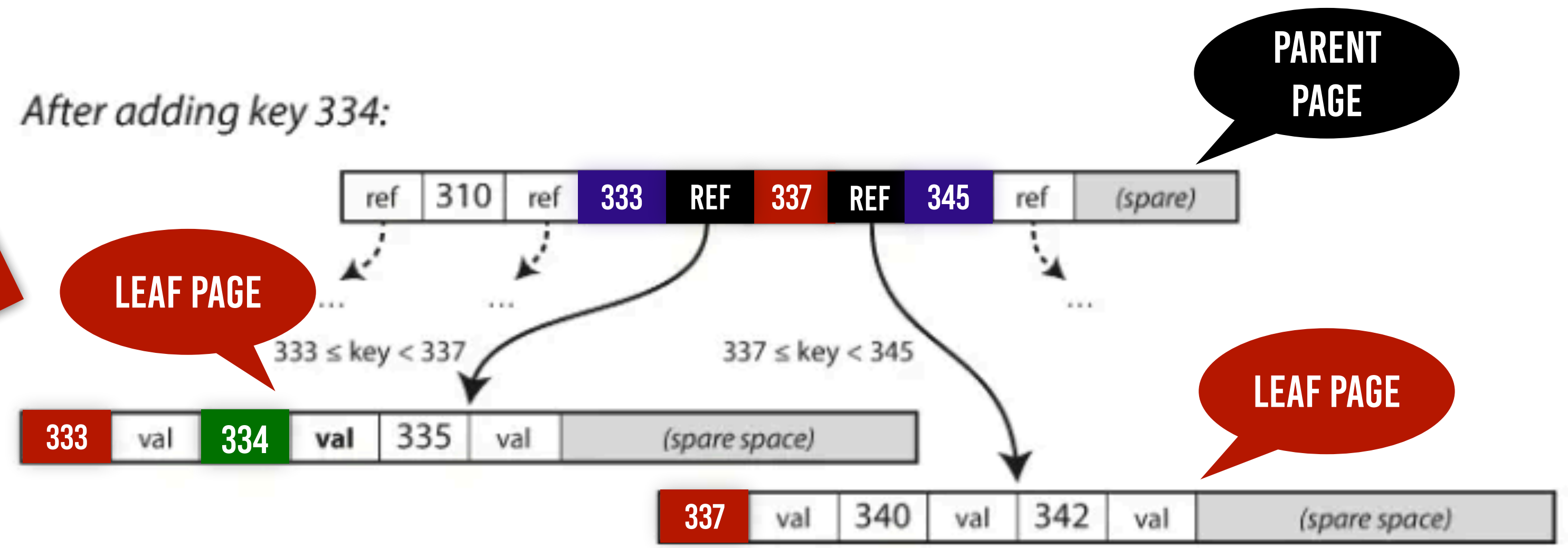


B-TREES

BRANCHING FACTOR?



After adding key 334:



PERFORMANCE ENHANCEMENTS IN B-TREES

WAL

WRITE AHEAD LOG

COPY ON WRITE

B-TREE +

SHORT KEY NAMES

EXTRA POINTERS



