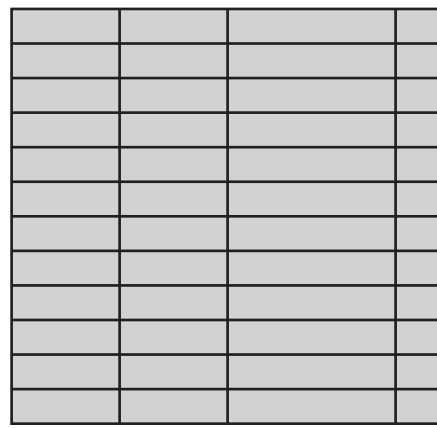


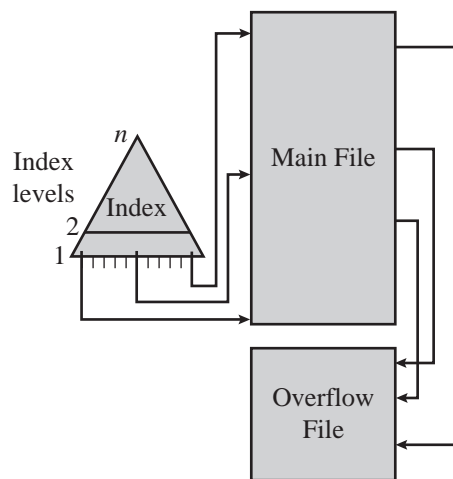
Variable-length records
Variable set of fields
Chronological order

(a) Pile File

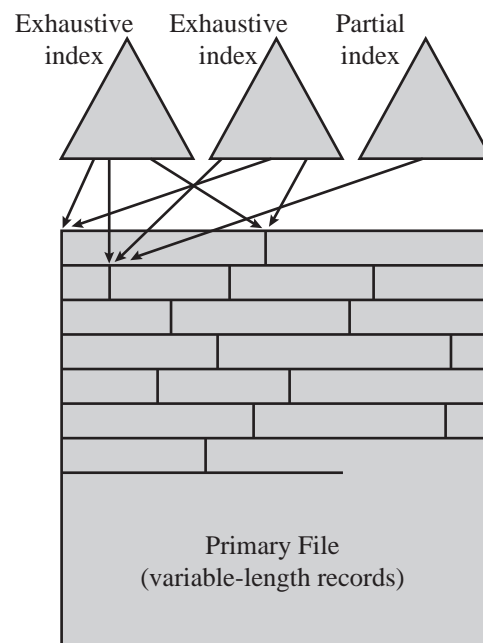


Fixed-length records
Fixed set of fields in fixed order
Sequential order based on key field

(b) Sequential File



(c) Indexed Sequential File



(d) Indexed File

Figure 12.3 Common File Organizations