

## Un exemple de programme COBOL/SQL.

Le programme suivant définit une table décrivant des commandes de pièces, la garnit de données, puis imprime des extraits de cette table en fonction du numéro de fournisseur.

```
identification division.
program-id. TRCOM.

data division.
working-storage section.

exec SQL  begin declare section  end-exec.
    01 ZNFACT                pic X(6).
    01 ZDATE                  pic 9(6).
    01 ZNCOM                   pic X(4).
    01 ZNTOT                   pic 9(6) usage comp.
    01 ZNCLI                   pic X(4).
    01 ZNOM                    pic X(12).
exec SQL  end declare section  end-exec.

exec SQL  include SQLCA  end-exec.

    01 FIN pic S9(9) value 100.
    01 OK  pic S9(9) value 0.

procedure division.
    perform DEFINIR-TABLE.
    perform GARNIR-TABLE.
    perform EXTRAIRE-TABLE.
    stop-run.

DEFINIR-TABLE.
    exec SQL
        create table FACTURE (NFACT integer not null,
                                DATE decimal(6),
                                NCOM integer,
                                TOTAL integer)
    end-exec.
    exec SQL
        create unique index IDXNFACT on FACTURE(NFACT)
    end-exec.

GARNIR-TABLE.
    display "introduire numéro, date, commande, total".
```

```

    accept ZNFACT, ZDATE, ZNCOM, ZTOT.
    perform INSERER-FACT until ZNFACT = 0.

INSERER-FACT.
    exec SQL
    insert into FACTURE
        values ( :ZNFACT, :ZDATE, :ZNCOM, :ZTOT)
    end-exec.
    accept ZNFACT, ZDATE, ZNCOM, ZTOT.

EXTRAIRE-TABLE.
    exec SQL
    declare FAC cursor for
    select NFACT, DATE, NCOM, TOT, NOM
    from CLIENT, COMMANDE, FACTURE
    where CLIENT.NCLI = :ZNCLI
    and COMMANDE.NCLI = CLIENT.NCLI
    and FACTURE.NCOM = COMMANDE.NCOM
    end-exec.
    perform LIRE-NUM-CLIENT.
    perform IMPRIMER-EXTRAIT until ZNCLI = "0".

LIRE-NUM-CLIENT.
    display "numéro de client ou zéro".
    accept ZNCLI.

IMPRIMER-EXTRAIT.
    exec SQL open FAC end-exec.
    if SQLCODE not = OK go to ERREUR.
    perform LIRE-LIGNE.
    perform IMPRIMER-ET-LIRE until SQLCODE not = 0.
    exec SQL close FACT end-exec.
    perform LIRE-NUM-CLIENT.

LIRE-LIGNE.
    exec SQL
    fetch FACT into :ZNFACT, :ZDATE, :ZNCOM,
                    :ZTOT, :ZNOM
    end-exec.
    if SQLCODE not = OK and not = FIN go to ERREUR.

IMPRIMER-ET-LIRE.
    display :ZNFACT, " ", :ZDATE, " ", :ZNCOM, " ", :ZTOT, " ", :ZNOM.
    perform LIRE-LIGNE.

ERREUR.
    display "erreur de base de données".
    display "code SQL = " SQLCODE.
    stop run.

```

### **3**    *Les bases de données*