

# Relational Schema:

**Publishers** (publisher\_ID:integer (PK), name:string, address:string, phone:integer)

**Authors** (author\_ID:integer (PK), first\_name:string, last\_name:string)

**Books** (ISBN:integer (PK), title:string, publisher\_ID:integer (FK to **Publishers**), publication\_year:year, genre:string)

**Book\_Authors** (ISBN:integer (FK to **Books**), author\_ID:integer (FK to **Authors**))

**Library\_Branches** (branch\_ID:integer (PK), name:string, location:string)

**Book\_Copies** (book\_copy\_ID:integer (PK), ISBN:integer (FK to **Books**), branch\_ID:integer (FK to **Library\_Branches**), status:ENUM ("Available", "On Loan", "Reserved"))

**Members** (member\_ID:integer (PK), first\_name:string, last\_name:string, email:string (UNIQUE), phone:integer, address:string, date\_registered:date)

**Loans** (loan\_ID:integer (PK), book\_copy\_ID:integer (FK to **Book\_Copies**), member\_ID:integer (FK to **Members**), issue\_date:date, due\_date:date, return\_date:date (NULL if not returned), fine\_amount:integer)

# ER Diagram:

