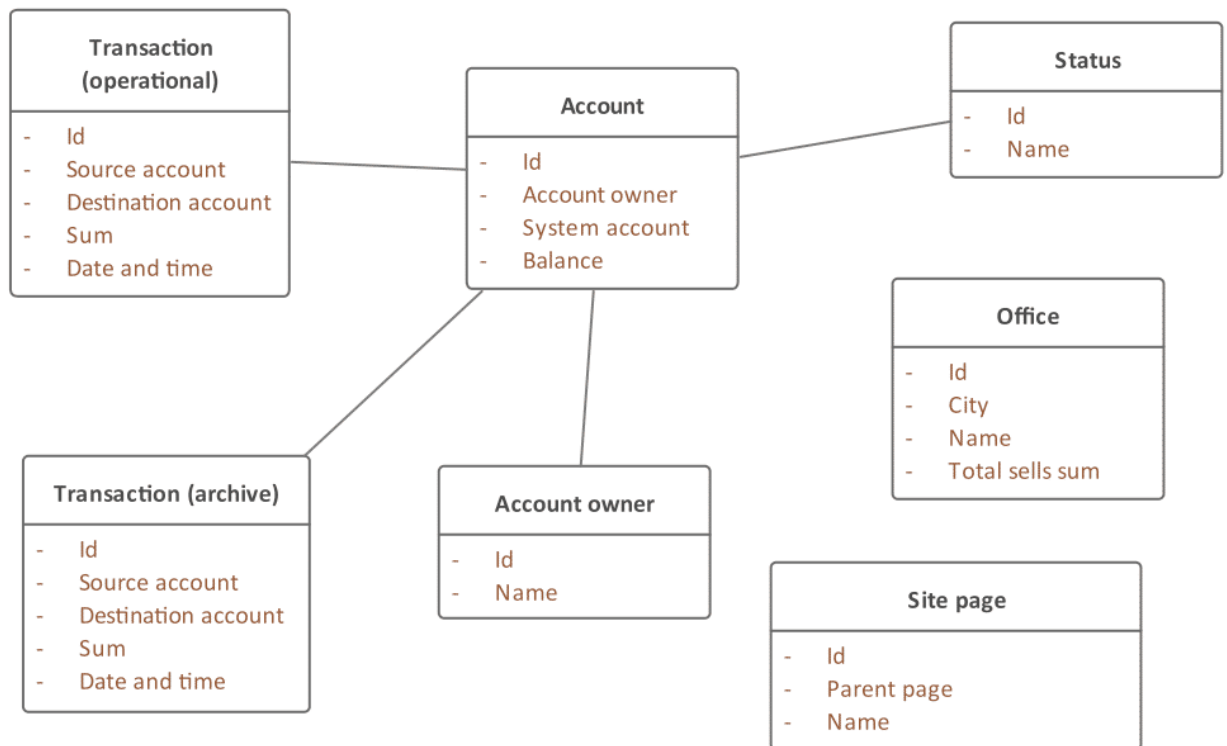


1. Analyze the “Bank” database model (see below). Perform the following tasks:
 - a. Create a list of quality principles violated by this database. Make necessary corrections to the database.
 - b. What quality checks would you suggest to repeat over time on this database? Make a list.
 - c. Re-check data types of all fields in the database. Is everything OK? If no, make a list of issues you’ve found.
 2. Repeat the same tasks (see point 1) for a database you’ve created while performing the task for “Database Modelling” and “Additional Database Objects and Processes” parts of this course.
-

This is an extremely simplified database model for some imaginary bank. It contains only basic elements. There are some intentionally made mistakes, so it is your task to find and correct them.

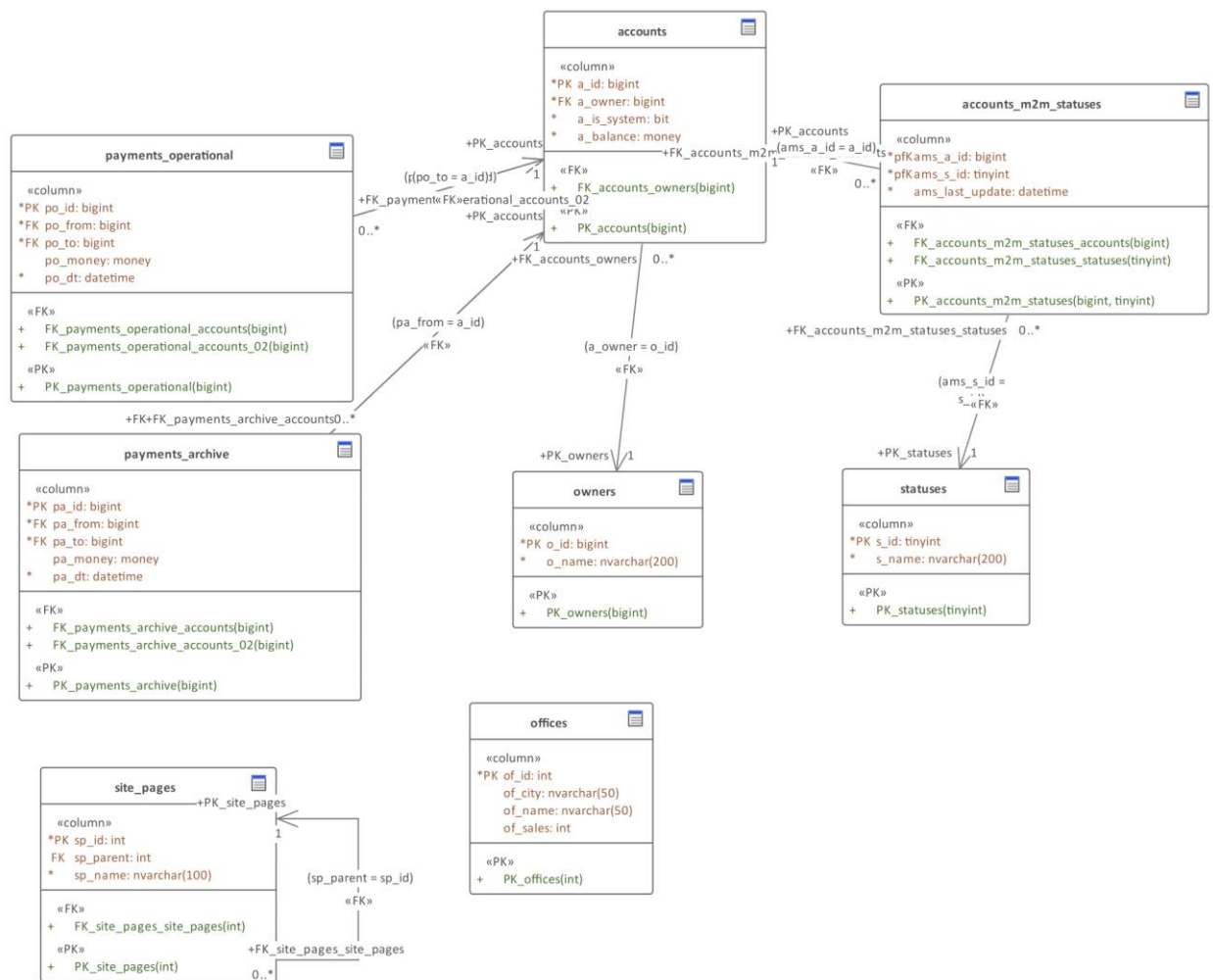
The database represents the following entities and attributes (see Picture A or “Conceptual Model” in “CTECH DB 05 - Additional Database Objects and Processes - task.eap”):

- Account (describes an account):
 - id (account id);
 - balance (account balance, MONEY data type);
 - account owner (FK);
 - system account (a flag representing that this account does not belong to a human).
- Status (account status, e.g., «Active», «Locked» и т.д.):
 - id (status id);
 - name (status name).
- Transaction operational (for transactions in the current month):
 - id (transaction id);
 - source account (FK);
 - destination account (FK);
 - date and time (transaction datetime);
 - sum (transaction total sum).
- Transaction archive (for transactions before the current month):
 - id (transaction id);
 - source account (FK);
 - destination account (FK);
 - date and time (transaction datetime);
 - sum (transaction total sum).
- Account owner (bank client):
 - id (account owner id);
 - name (account owner name).
- Site page (bank website page):
 - id (page id);
 - parent page (rFK);
 - name (page name).
- Office (bank office):
 - id (office id);
 - city (office location);
 - name (office name);
 - total sells sum (MONEY datatype, sum of profit by the office).

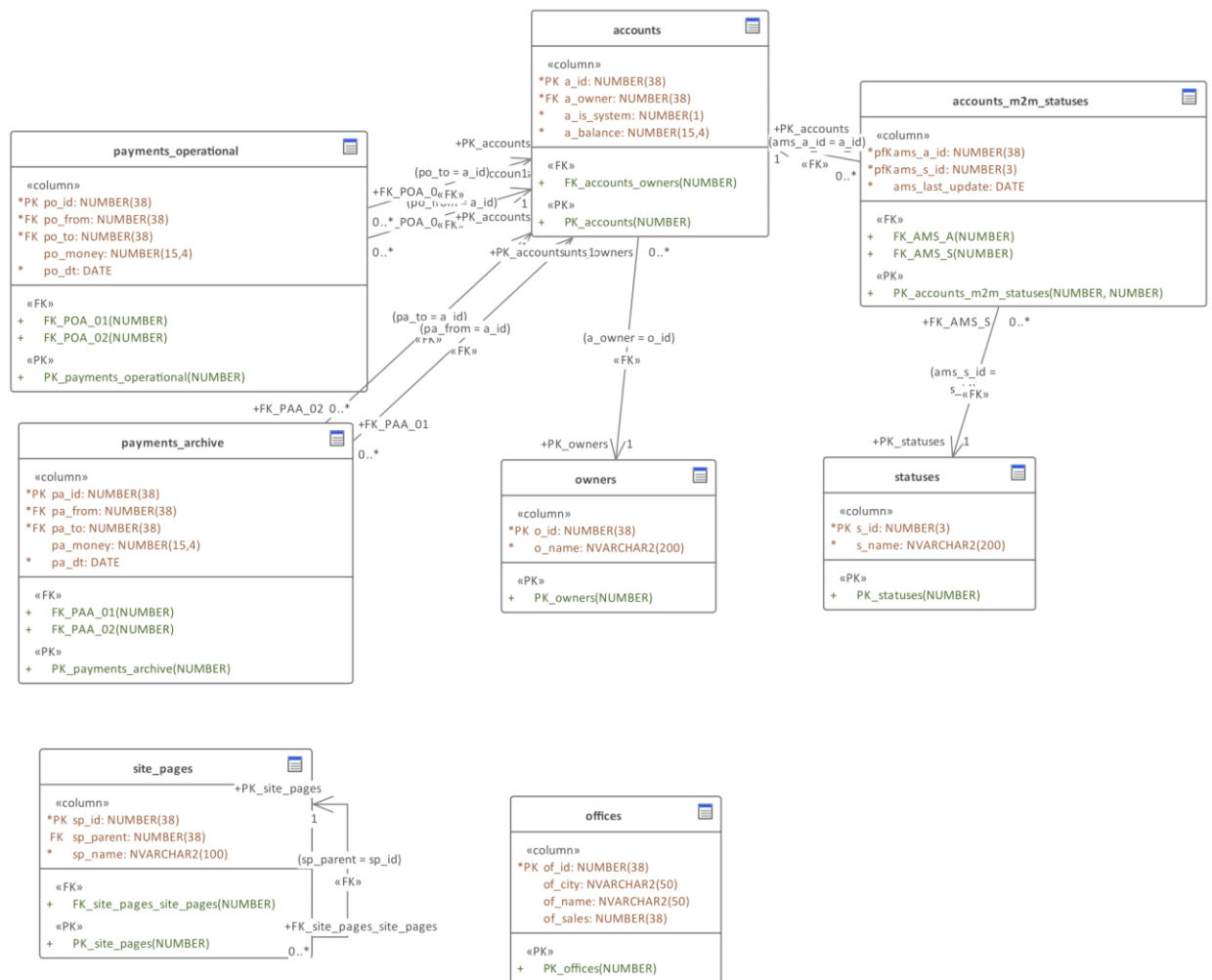


Picture A – “Conceptual Model”

The datalogical level of the database looks like this (see Picture B and Picture C or “Datalogical Model” in “CTECH DB 05 - Additional Database Objects and Processes - task.eap”):



Picture B – “Datological Model” for MS SQL Server



Picture C – “Datalogical Model” for Oracle