

Star Schema
Exercises (No Answers)

Step 1: Input – Normalized Tables (30 total)

System 1: CRM (8 tables)

1. crm_customers(customer_id, first_name, last_name, email, phone, created_date)
2. crm_addresses(address_id, customer_id, street, city, state, country, postal_code)
3. crm_customer_segments(segment_id, segment_name, description)
4. crm_contacts(contact_id, customer_id, contact_type, contact_value)
5. crm_interactions(interaction_id, customer_id, date, channel, notes)
6. crm_accounts(account_id, customer_id, account_type, opened_date, status)
7. crm_loyalty(loyalty_id, customer_id, points, tier, last_update)
8. crm_support_tickets(ticket_id, customer_id, issue_type, status, opened_date, closed_date)

System 2: ERP (9 tables)

1. erp_products(product_id, product_name, category_id, brand_id, unit_price, cost)
2. erp_categories(category_id, category_name, parent_id)
3. erp_brands(brand_id, brand_name)
4. erp_suppliers(supplier_id, supplier_name, contact_name, phone, country)
5. erp_purchase_orders(po_id, supplier_id, order_date, status)
6. erp_po_items(po_item_id, po_id, product_id, quantity, price)
7. erp_inventories(inventory_id, product_id, warehouse_id, stock_level)
8. erp_warehouses(warehouse_id, warehouse_name, location)
9. erp_employees(employee_id, first_name, last_name, department_id, hire_date)

System 3: Finance (6 tables)

1. fin_transactions(transaction_id, account_id, date, amount, type, description)
2. fin_accounts(account_id, account_number, account_type, opened_date, status)
3. fin_cost_centers(center_id, center_name, department)
4. fin_budgets(budget_id, center_id, year, allocated_amount)
5. fin_expenses(expense_id, center_id, date, amount, description)
6. fin_payments(payment_id, transaction_id, method, status, payment_date)

System 4: HR (7 tables)

1. hr_employees(employee_id, first_name, last_name, department_id, job_id, hire_date, salary)
2. hr_departments(department_id, department_name, manager_id)
3. hr_jobs(job_id, job_title, min_salary, max_salary)
4. hr_salaries(salary_id, employee_id, amount, effective_date)
5. hr_attendance(att_id, employee_id, date, status)
6. hr_leaves(leave_id, employee_id, start_date, end_date, type, status)
7. hr_trainings(training_id, employee_id, training_name, date, result)

