```
CREATE TABLE REGIONS (
   region_id INT,
   region_name VARCHAR2(50),
   CONSTRAINT country_id_pk PRIMARY KEY (country_id)
);

CREATE TABLE COUNTRIES (
   country_id CHAR(2),
   country_name VARCHAR(50),
   region_id INT,
   CONSTRAINT country_id_pk PRIMARY KEY (country_id),
   CONSTRAINT region_id_in_countries FOREIGN KEY (region_id) REFERENCES REGIONS(region_id)
);

CREATE TABLE LOCATIONS (
   location_id INT,
   street_address VARCHAR(100),
   postal_code VARCHAR(20),
   city VARCHAR(50),
   state_province VARCHAR(50),
   country_id CHAR(2),
   CONSTRAINT location_id_pk PRIMARY KEY (location_id),
   CONSTRAINT country_id_in_locations FOREIGN KEY (country_id) REFERENCES
COUNTRIES(country_id)
);

CREATE TABLE DEPARTMENTS (
   department_id INT,
```

```
    department_name VARCHAR2(100),
    manager_id INT,
    location_id INT,
    CONSTRAINT department_id_pk PRIMARY KEY (department_id),
    CONSTRAINT location_id_in_departments FOREIGN KEY (location_id) REFERENCES LOCATIONS
(location_id)
);

CREATE TABLE EMPLOYEES (
    employee_id INT,
    first_name VARCHAR2(50),
    last_name VARCHAR2(50) NOT NULL,
    email VARCHAR2(100) UNIQUE NOT NULL,
    phone_number VARCHAR2(20),
    hire_date DATE NOT NULL,
    job_id INT,
    salary NUMBER(10,2) NOT NULL,
    commission_pct NUMBER(5,2),
    manager_id INT,
    department_id INT,
    CONSTRAINT employee_id_pk PRIMARY KEY (employee_id),
    CONSTRAINT manager_id_in_employees FOREIGN KEY (manager_id) REFERENCES EMPLOYEES
(employee_id),
    CONSTRAINT department_id_in_employees FOREIGN KEY (department_id) REFERENCES
DEPARTMENTS (department_id)
);

ALTER TABLE DEPARTMENTS ADD CONSTRAINT manager_id_in_departements FOREIGN KEY
(manager_id) REFERENCES EMPLOYEES (employee_id);
```

```
CREATE TABLE JOB_HISTORY (
   employee_id INT,
   start_date DATE NOT NULL,
   end_date DATE NOT NULL,
   job_id INT NOT NULL,
   department_id INT NOT NULL,
   CONSTRAINT employee_id_start_date_pk PRIMARY KEY (employee_id, start_date),
   CONSTRAINT department_id_in_job_history FOREIGN KEY (department_id) REFERENCES
DEPARTMENTS (department_id),
   CONSTRAINT employee_id_in_job_history FOREIGN KEY (employee_id) REFERENCES EMPLOYEES
(employee_id)
);
CREATE TABLE JOBS (
   job_id INT,
   job_title VARCHAR2(255) NOT NULL,
   min_salary NUMBER(10,2) NOT NULL,
   max_salary NUMBER(10,2) NOT NULL,
   CONSTRAINT job_id_pk PRIMARY KEY (job_id)
);

ALTER TABLE JOB_HISTORY ADD CONSTRAINT job_id_in_job_history FOREIGN KEY (job_id)
REFERENCES JOBS (job_id);
ALTER TABLE EMPLOYEES ADD CONSTRAINT job_id_in_employees FOREIGN KEY (job_id) REFERENCES
JOBS (job_id);

ALTER TABLE JOBS ADD CONSTRAINT chk_salary CHECK (max_salary >= min_salary + 2000);
```

```
INSERT INTO JOBS (job_id, job_title, min_salary, max_salary) VALUES (JOBS_SEQ.NEXTVAL, 'Developer', 3000, 7000);

INSERT INTO JOBS (job_id, job_title, min_salary, max_salary) VALUES (JOBS_SEQ.NEXTVAL, 'Manager', 5000, 10000);

INSERT INTO JOBS (job_id, job_title, min_salary, max_salary) VALUES (JOBS_SEQ.NEXTVAL, 'Analyst', 4000, 9000);

INSERT INTO JOBS (job_id, job_title, min_salary, max_salary) VALUES (JOBS_SEQ.NEXTVAL, 'Support', 2500, 6000);


SELECT * FROM JOBS;


INSERT INTO EMPLOYEES (employee_id, first_name, last_name, email, phone_number, hire_date, job_id, salary, commission_pct, manager_id, department_id) VALUES

(EMPLOYEES_SEQ.NEXTVAL, 'Jan', 'Kowalski', 'jan.k@example.com', '123456789', SYSDATE, 1, 5000, NULL, NULL, NULL);

INSERT INTO EMPLOYEES (employee_id, first_name, last_name, email, phone_number, hire_date, job_id, salary, commission_pct, manager_id, department_id) VALUES

(EMPLOYEES_SEQ.NEXTVAL, 'Anna', 'Nowak', 'anna.n@example.com', '987654321', SYSDATE, 2, 7000, 5, 3, NULL);

INSERT INTO EMPLOYEES (employee_id, first_name, last_name, email, phone_number, hire_date, job_id, salary, commission_pct, manager_id, department_id) VALUES

(EMPLOYEES_SEQ.NEXTVAL, 'Piotr', 'Zieliński', 'piotr.z@example.com', '555666777', SYSDATE, 3, 6000, 3, 3, NULL);

INSERT INTO EMPLOYEES (employee_id, first_name, last_name, email, phone_number, hire_date, job_id, salary, commission_pct, manager_id, department_id) VALUES

(EMPLOYEES_SEQ.NEXTVAL, 'Maria', 'Wiśniewska', 'maria.w@example.com', '444333222', SYSDATE, 4, 4500, NULL, 2, NULL);


SELECT * FROM EMPLOYEES;


UPDATE EMPLOYEES SET manager_id = 1 WHERE employee_id IN (2, 3);
```

```
UPDATE JOBS SET min_salary = min_salary + 500, max_salary = max_salary + 500 WHERE
LOWER(job_title) LIKE '%b%' OR LOWER(job_title) LIKE '%s%';


SELECT DISTINCT job_id FROM EMPLOYEES WHERE job_id IN (SELECT job_id FROM jobs WHERE
max_salary > 9000);

UPDATE EMPLOYEES SET manager_id = NULL WHERE manager_id IN (SELECT employee_id FROM
employees WHERE job_id IN (2, 3));


DELETE FROM EMPLOYEES WHERE job_id IN (SELECT job_id FROM JOBS WHERE max_salary > 9000);

DELETE FROM JOBS WHERE max_salary > 9000;


DROP TABLE EMPLOYEES CASCADE CONSTRAINTS;

FLASHBACK TABLE EMPLOYEES TO BEFORE DROP;
```