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PROBLEM 2 :-

PROGRAM :-

creating the databases:-

DESCRIBE job_grades;

DESCRIBE job_history;

DESCRIBE employees;

DESCRIBE jobs;

DESCRIBE departments;

DESCRIBE locations;

DESCRIBE countries;

DESCRIBE regions;

creating the tables:-

```sql
-- Creating the 'job_grades' table
CREATE TABLE job_grades (
    grade_level VARCHAR2(10) PRIMARY KEY,
    low_salary NUMBER,
    high_salary NUMBER
);
-- Creating the 'job_history' table
CREATE TABLE job_history (
    employee_id NUMBER,
    start_date DATE,
    end_date DATE,
    job_id VARCHAR2(10),
    department_id NUMBER,
    PRIMARY KEY (employee_id, start_date),
    FOREIGN KEY (employee_id) REFERENCES employees(employee_id),
    FOREIGN KEY (job_id) REFERENCES jobs(job_id),
```

```sql
    FOREIGN KEY (department_id) REFERENCES departments(department_id)
);
-- Creating the 'employees' table
CREATE TABLE employees (
    employee_id NUMBER PRIMARY KEY,
    first_name VARCHAR2(50),
    last_name VARCHAR2(50),
    email VARCHAR2(100) UNIQUE,
    phone_number VARCHAR2(20),
    hire_date DATE,
    job_id VARCHAR2(10),
    salary NUMBER,
    commission_pct NUMBER,
    manager_id NUMBER,
    department_id NUMBER,
    FOREIGN KEY (job_id) REFERENCES jobs(job_id),
    FOREIGN KEY (manager_id) REFERENCES employees(employee_id),
    FOREIGN KEY (department_id) REFERENCES departments(department_id)
);
-- Creating the 'jobs' table
CREATE TABLE jobs (
    job_id VARCHAR2(10) PRIMARY KEY,
    job_title VARCHAR2(35),
    min_salary NUMBER,
    max_salary NUMBER
);
-- Creating the 'departments' table
CREATE TABLE departments (
    department_id NUMBER PRIMARY KEY,
    department_name VARCHAR2(30),
    manager_id NUMBER,
```

```sql
    location_id NUMBER,
    FOREIGN KEY (manager_id) REFERENCES employees(employee_id),
    FOREIGN KEY (location_id) REFERENCES locations(location_id)
);
-- Creating the 'locations' table
CREATE TABLE locations (
    location_id NUMBER PRIMARY KEY,
    street_address VARCHAR2(100),
    postal_code VARCHAR2(12),
    city VARCHAR2(30),
    state_province VARCHAR2(25),
    country_id VARCHAR2(2),
    FOREIGN KEY (country_id) REFERENCES countries(country_id)
);
-- Creating the 'countries' table
CREATE TABLE countries (
    country_id VARCHAR2(2) PRIMARY KEY,
    country_name VARCHAR2(40),
    region_id NUMBER,
    FOREIGN KEY (region_id) REFERENCES regions(region_id)
);
-- Creating the 'regions' table
CREATE TABLE regions (
    region_id NUMBER PRIMARY KEY,
    region_name VARCHAR2(25)
);
```

DATABASE SQL :-

```
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 31
Server version: 8.0.39 MySQL Community Server - GPL

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Type 'help;' or '\h' for help. Type '\c' to clear the curr

mysql> create database job;
Query OK, 1 row affected (0.01 sec)

mysql> use job
Database changed
mysql> create table jobs(grade char(1),salary int(10));
Query OK, 0 rows affected, 1 warning (0.04 sec)

mysql> insert into jobs("A",80000);
ERROR 1064 (42000): You have an error in your SQL syntax;
A",80000)' at line 1
mysql> insert into jobs values("A",80000);
Query OK, 1 row affected (0.01 sec)

mysql> insert into jobs values("C",45000);
Query OK, 1 row affected (0.01 sec)

mysql> insert into jobs values("B",67000);
Query OK, 1 row affected (0.01 sec)

mysql> insert into jobs values("A",90000);
Query OK, 1 row affected (0.01 sec)

mysql> insert into jobs values("D",30000);
Query OK, 1 row affected (0.01 sec)

mysql>
```