```sql
-- Creating the New Database
CREATE DATABASE EMPLOYEE;

-- Switching to EMPLOYEE Database
USE EMPLOYEE;

-- Creating Department Table
CREATE TABLE Department (
    DepartmentID INT PRIMARY KEY,
    DepartmentName VARCHAR(100) NOT NULL
);

-- Creating JobTitle Table
CREATE TABLE JobTitle (
    JobTitleID INT PRIMARY KEY,
    JobTitleName VARCHAR(100) NOT NULL
);

-- Creating Employee Table
CREATE TABLE Employee (
    EmployeeID INT PRIMARY KEY,
    FirstName VARCHAR(100) NOT NULL,
    LastName VARCHAR(100) NOT NULL,
    DateOfBirth DATE,
    Gender VARCHAR(10),
    PhoneNumber VARCHAR(15),
    Email VARCHAR(100),
    HireDate DATE,
    DepartmentID INT,
    JobTitleID INT,
    ManagerID INT,
    FOREIGN KEY (DepartmentID) REFERENCES Department(DepartmentID),
    FOREIGN KEY (JobTitleID) REFERENCES JobTitle(JobTitleID),
    FOREIGN KEY (ManagerID) REFERENCES Employee(EmployeeID)   -- (Self
        Referencing Foreign Key)
);

-- Creating Salary Table
CREATE TABLE Salary (
    SalaryID INT PRIMARY KEY,
    EmployeeID INT NOT NULL FOREIGN KEY (EmployeeID) REFERENCES Employee
        (EmployeeID),
    BaseSalary DECIMAL(10,2) NOT NULL,
    Bonus DECIMAL(10,2) DEFAULT 0.00,
    Deductions DECIMAL(10,2) DEFAULT 0.00,
    PaymentDate DATE NOT NULL
);

-- Creating Attendance Table
CREATE TABLE Attendance (
    AttendanceID INT PRIMARY KEY,
    EmployeeID INT NOT NULL,
    Date DATE NOT NULL,
    Status VARCHAR(10) CHECK (Status IN ('Present', 'Absent', 'Leave')),
    FOREIGN KEY (EmployeeID) REFERENCES Employee(EmployeeID)
);
```

```sql
55
56  -- Creating Project Table
57  CREATE TABLE Project (
58      ProjectID INT PRIMARY KEY,
59      ProjectName VARCHAR(100) NOT NULL,
60      StartDate DATE,
61      EndDate DATE,
62      ProjectManagerID INT,
63      FOREIGN KEY (ProjectManagerID) REFERENCES Employee(EmployeeID)
64  );
65
66  -- Creating ProjectAllocation Table
67  CREATE TABLE ProjectAllocation (
68      AllocationID INT PRIMARY KEY,
69      EmployeeID INT,
70      ProjectID INT,
71      AllocationDate DATE,
72      FOREIGN KEY (EmployeeID) REFERENCES Employee(EmployeeID),
73      FOREIGN KEY (ProjectID) REFERENCES Project(ProjectID),
74      CONSTRAINT UC_Employee_Project UNIQUE(EmployeeID, ProjectID)
75  );
76
77  ---- INSERT DATA INTO CREATED TABLE ----
78
79  -- Insert Data into Department Table
80  INSERT INTO Department (DepartmentID, DepartmentName)
81  VALUES (1, 'Human Resources'),
82         (2, 'Engineering'),
83         (3, 'Sales'),
84         (4, 'Marketing'),
85         (5, 'Finance');
86
87  -- Insert Data into Job Title Table
88  INSERT INTO JobTitle (JobTitleID, JobTitleName)
89  VALUES (1, 'HR Manager'),
90         (2, 'Software Engineer'),
91         (3, 'Sales Executive'),
92         (4, 'Marketing Manager'),
93         (5, 'Finance Analyst'),
94         (6, 'Project Manager'),
95         (7, 'Software Developer'),
96         (8, 'Accountant'),
97         (9, 'Data Scientist'),
98         (10, 'Marketing Executive');
99
100 -- Insert Data into Employee Table
101 INSERT INTO Employee (EmployeeID, FirstName, LastName, DateOfBirth, Gender,
      PhoneNumber, Email, HireDate, DepartmentID, JobTitleID, ManagerID)
102 VALUES
103     (1, 'John', 'Doe', '1980-01-15', 'M', '123-456-7890',
         'john.doe@example.com', '2015-06-01', 1, 1, NULL),
104     (2, 'Jane', 'Smith', '1985-03-20', 'F', '234-567-8901',
         'jane.smith@example.com', '2016-07-10', 2, 2, NULL),
105     (3, 'Michael', 'Johnson', '1978-11-30', 'M', '345-678-9012',
         'michael.johnson@example.com', '2014-08-15', 3, 3, NULL),
106     (4, 'Emily', 'Davis', '1990-05-25', 'F', '456-789-0123',
```

```sql
              'emily.davis@example.com', '2017-09-01', 4, 4, 1),
107       (5, 'David', 'Martinez', '1982-07-18', 'M', '567-890-1234',
              'david.martinez@example.com', '2015-10-21', 5, 5, 2),
108       (6, 'Sarah', 'Miller', '1992-02-10', 'F', '678-901-2345',
              'sarah.miller@example.com', '2018-01-15', 1, 2, 3),
109       (7, 'James', 'Wilson', '1988-09-05', 'M', '789-012-3456',
              'james.wilson@example.com', '2016-03-12', 2, 3, 4),
110       (8, 'Olivia', 'Moore', '1991-10-25', 'F', '890-123-4567',
              'olivia.moore@example.com', '2017-12-10', 3, 4, 5),
111       (9, 'William', 'Taylor', '1983-04-13', 'M', '901-234-5678',
              'william.taylor@example.com', '2016-11-30', 4, 1, 3),
112       (10, 'Sophia', 'Anderson', '1993-06-27', 'F', '123-456-7891',
              'sophia.anderson@example.com', '2018-02-22', 5, 5, 2),
113       (11, 'Benjamin', 'Thomas', '1981-12-09', 'M', '234-567-8902',
              'benjamin.thomas@example.com', '2014-05-18', 1, 2, 3),
114       (12, 'Isabella', 'Jackson', '1987-03-15', 'F', '345-678-9013',
              'isabella.jackson@example.com', '2017-06-05', 2, 3, 4),
115       (13, 'Lucas', 'White', '1984-08-28', 'M', '456-789-0124',
              'lucas.white@example.com', '2015-07-09', 3, 4, 5),
116       (14, 'Mia', 'Harris', '1994-01-19', 'F', '567-890-1235',
              'mia.harris@example.com', '2018-03-17', 4, 1, 1),
117       (15, 'Alexander', 'Clark', '1986-12-21', 'M', '678-901-2346',
              'alexander.clark@example.com', '2016-04-25', 5, 5, 2),
118       (16, 'Ethan', 'Lewis', '1990-09-11', 'M', '789-012-3457',
              'ethan.lewis@example.com', '2017-09-11', 1, 1, 3),
119       (17, 'Ava', 'Walker', '1988-02-03', 'F', '890-123-4568',
              'ava.walker@example.com', '2016-10-07', 2, 2, 4),
120       (18, 'Charlotte', 'Hall', '1985-05-29', 'F', '901-234-5679',
              'charlotte.hall@example.com', '2015-12-15', 3, 3, 5),
121       (19, 'Jackson', 'Allen', '1981-11-03', 'M', '123-456-7892',
              'jackson.allen@example.com', '2014-06-21', 4, 4, 1),
122       (20, 'Amelia', 'Young', '1989-08-17', 'F', '234-567-8903',
              'amelia.young@example.com', '2016-01-25', 5, 5, 2),
123       (21, 'Sebastian', 'King', '1984-02-20', 'M', '345-678-9014',
              'sebastian.king@example.com', '2014-11-28', 1, 2, 3),
124       (22, 'Liam', 'Wright', '1987-07-08', 'M', '456-789-0125',
              'liam.wright@example.com', '2016-09-19', 2, 3, 4),
125       (23, 'Aiden', 'Scott', '1983-12-22', 'M', '567-890-1236',
              'aiden.scott@example.com', '2015-04-02', 3, 4, 5),
126       (24, 'Harper', 'Green', '1991-01-30', 'F', '678-901-2347',
              'harper.green@example.com', '2017-05-12', 4, 1, 1),
127       (25, 'Jack', 'Adams', '1986-09-14', 'M', '789-012-3458',
              'jack.adams@example.com', '2016-12-01', 5, 5, 2),
128       (26, 'Ella', 'Baker', '1989-03-11', 'F', '890-123-4569',
              'ella.baker@example.com', '2015-07-23', 1, 2, 3),
129       (27, 'Henry', 'Gonzalez', '1993-10-07', 'M', '901-234-5680',
              'henry.gonzalez@example.com', '2018-01-03', 2, 3, 4),
130       (28, 'Lily', 'Nelson', '1992-06-05', 'F', '123-456-7893',
              'lily.nelson@example.com', '2018-03-01', 3, 4, 5),
131       (29, 'Matthew', 'Carter', '1985-11-18', 'M', '234-567-8904',
              'matthew.carter@example.com', '2016-02-14', 4, 1, 3),
132       (30, 'Scarlett', 'Mitchell', '1988-07-26', 'F', '345-678-9015',
              'scarlett.mitchell@example.com', '2017-06-23', 5, 5, 2),
133       (31, 'Charlotte', 'Perez', '1981-12-15', 'F', '456-789-0126',
              'charlotte.perez@example.com', '2014-08-19', 1, 2, 3),
134       (32, 'James', 'Roberts', '1984-04-21', 'M', '567-890-1237',
```

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                'james.roberts@example.com', '2015-09-09', 2, 3, 4),
135         (33, 'Oliver', 'Murphy', '1990-12-01', 'M', '678-901-2348',
                'oliver.murphy@example.com', '2016-04-18', 3, 4, 5),
136         (34, 'Avery', 'Evans', '1992-09-13', 'F', '789-012-3459',
                'avery.evans@example.com', '2017-10-02', 4, 1, 1),
137         (35, 'Mason', 'Walker', '1989-05-08', 'M', '890-123-4570',
                'mason.walker@example.com', '2015-03-20', 5, 5, 2),
138         (36, 'Sophia', 'Wood', '1991-11-09', 'F', '901-234-5681',
                'sophia.wood@example.com', '2016-08-17', 1, 2, 3),
139         (37, 'Jacob', 'Green', '1987-06-03', 'M', '123-456-7894',
                'jacob.green@example.com', '2016-12-07', 2, 3, 4),
140         (38, 'Samuel', 'Baker', '1994-08-19', 'M', '234-567-8905',
                'samuel.baker@example.com', '2017-01-15', 3, 4, 5),
141         (39, 'Zoe', 'Lopez', '1983-03-27', 'F', '345-678-9016',
                'zoe.lopez@example.com', '2015-10-31', 4, 1, 1),
142         (40, 'Gabriel', 'Hill', '1986-07-12', 'M', '456-789-0127',
                'gabriel.hill@example.com', '2016-05-20', 5, 5, 2),
143         (41, 'Elijah', 'Graham', '1992-04-15', 'M', '567-890-1238',
                'elijah.graham@example.com', '2018-02-03', 1, 2, 3),
144         (42, 'Lucy', 'Rivera', '1989-09-09', 'F', '678-901-2349',
                'lucy.rivera@example.com', '2016-09-29', 2, 3, 4),
145         (43, 'Isaac', 'Cooper', '1990-01-25', 'M', '789-012-3460',
                'isaac.cooper@example.com', '2017-03-15', 3, 4, 5),
146         (44, 'Chloe', 'James', '1993-11-18', 'F', '890-123-4571',
                'chloe.james@example.com', '2018-05-10', 4, 1, 1),
147         (45, 'Liam', 'Lee', '1987-02-27', 'M', '901-234-5682',
                'liam.lee@example.com', '2016-07-25', 5, 5, 2),
148         (46, 'Benjamin', 'Lopez', '1985-10-12', 'M', '123-456-7895',
                'benjamin.lopez@example.com', '2015-02-28', 1, 2, 3),
149         (47, 'Aiden', 'Harris', '1990-07-23', 'M', '234-567-8906',
                'aiden.harris@example.com', '2016-11-12', 2, 3, 4),
150         (48, 'Layla', 'Thompson', '1991-05-05', 'F', '345-678-9017',
                'layla.thompson@example.com', '2017-07-08', 3, 4, 5),
151         (49, 'Jackson', 'Johnson', '1988-08-13', 'M', '456-789-0128',
                'jackson.johnson@example.com', '2015-04-25', 4, 1, 1),
152         (50, 'Grace', 'White', '1982-09-22', 'F', '567-890-1239',
                'grace.white@example.com', '2015-01-13', 5, 5, 2);
153
154 -- Insert Data into Salary Table
155 INSERT INTO Salary (SalaryID, EmployeeID, BaseSalary, Bonus, Deductions,
      PaymentDate)
156 VALUES
157     (1, 1, 60000, 5000, 1000, '2024-10-30'),
158     (2, 2, 70000, 6000, 1200, '2024-10-30'),
159     (3, 3, 65000, 5500, 1100, '2024-10-30'),
160     (4, 4, 75000, 6500, 1300, '2024-10-30'),
161     (5, 5, 68000, 6200, 1250, '2024-10-30'),
162     (6, 6, 72000, 6300, 1400, '2024-10-30'),
163     (7, 7, 66000, 5400, 1150, '2024-10-30'),
164     (8, 8, 71000, 5900, 1300, '2024-10-30'),
165     (9, 9, 67000, 6100, 1200, '2024-10-30'),
166     (10, 10, 69000, 6000, 1300, '2024-10-30'),
167     (11, 11, 72000, 5500, 1250, '2024-10-30'),
168     (12, 12, 70000, 5800, 1200, '2024-10-30'),
169     (13, 13, 74000, 6100, 1350, '2024-10-30'),
170     (14, 14, 69000, 5900, 1250, '2024-10-30'),
```

```sql
171        (15, 15, 67000, 5500, 1100, '2024-10-30'),
172        (16, 16, 72000, 5400, 1200, '2024-10-30'),
173        (17, 17, 70000, 5900, 1300, '2024-10-30'),
174        (18, 18, 68000, 5700, 1250, '2024-10-30'),
175        (19, 19, 71000, 6200, 1200, '2024-10-30'),
176        (20, 20, 69000, 5400, 1350, '2024-10-30'),
177        (21, 21, 73000, 5600, 1200, '2024-10-30'),
178        (22, 22, 68000, 5800, 1250, '2024-10-30'),
179        (23, 23, 71000, 6000, 1300, '2024-10-30'),
180        (24, 24, 65000, 5400, 1150, '2024-10-30'),
181        (25, 25, 68000, 5900, 1200, '2024-10-30'),
182        (26, 26, 70000, 6200, 1250, '2024-10-30'),
183        (27, 27, 71000, 6300, 1350, '2024-10-30'),
184        (28, 28, 68000, 5900, 1200, '2024-10-30'),
185        (29, 29, 72000, 6000, 1250, '2024-10-30'),
186        (30, 30, 75000, 6500, 1300, '2024-10-30'),
187        (31, 31, 70000, 5800, 1200, '2024-10-30'),
188        (32, 32, 69000, 6100, 1250, '2024-10-30'),
189        (33, 33, 67000, 5600, 1150, '2024-10-30'),
190        (34, 34, 72000, 5900, 1300, '2024-10-30'),
191        (35, 35, 74000, 6100, 1350, '2024-10-30'),
192        (36, 36, 68000, 5400, 1200, '2024-10-30'),
193        (37, 37, 69000, 5800, 1250, '2024-10-30'),
194        (38, 38, 71000, 5900, 1300, '2024-10-30'),
195        (39, 39, 75000, 6000, 1350, '2024-10-30'),
196        (40, 40, 67000, 5500, 1100, '2024-10-30'),
197        (41, 41, 72000, 5900, 1250, '2024-10-30'),
198        (42, 42, 74000, 6200, 1300, '2024-10-30'),
199        (43, 43, 71000, 5800, 1250, '2024-10-30'),
200        (44, 44, 68000, 5400, 1200, '2024-10-30'),
201        (45, 45, 69000, 6000, 1250, '2024-10-30'),
202        (46, 46, 73000, 5500, 1300, '2024-10-30'),
203        (47, 47, 71000, 5900, 1200, '2024-10-30'),
204        (48, 48, 75000, 6500, 1350, '2024-10-30'),
205        (49, 49, 68000, 5700, 1250, '2024-10-30'),
206        (50, 50, 70000, 6000, 1300, '2024-10-30');
207
208 -- Insert Data into Attendance Table
209 INSERT INTO Attendance (AttendanceID, EmployeeID, [Date], [Status])
210 VALUES
211        (1, 1, '2024-10-01', 'Present'),
212        (2, 2, '2024-10-01', 'Absent'),
213        (3, 3, '2024-10-01', 'Leave'),
214        (4, 4, '2024-10-01', 'Present'),
215        (5, 5, '2024-10-01', 'Absent'),
216        (6, 6, '2024-10-01', 'Present'),
217        (7, 7, '2024-10-01', 'Leave'),
218        (8, 8, '2024-10-01', 'Present'),
219        (9, 9, '2024-10-01', 'Absent'),
220        (10, 10, '2024-10-01', 'Present'),
221        (11, 11, '2024-10-01', 'Present'),
222        (12, 12, '2024-10-01', 'Absent'),
223        (13, 13, '2024-10-01', 'Leave'),
224        (14, 14, '2024-10-01', 'Present'),
225        (15, 15, '2024-10-01', 'Absent'),
226        (16, 16, '2024-10-01', 'Leave'),
```

```sql
227        (17, 17, '2024-10-01', 'Present'),
228        (18, 18, '2024-10-01', 'Absent'),
229        (19, 19, '2024-10-01', 'Present'),
230        (20, 20, '2024-10-01', 'Present'),
231        (21, 21, '2024-10-01', 'Absent'),
232        (22, 22, '2024-10-01', 'Leave'),
233        (23, 23, '2024-10-01', 'Present'),
234        (24, 24, '2024-10-01', 'Absent'),
235        (25, 25, '2024-10-01', 'Present'),
236        (26, 26, '2024-10-01', 'Leave'),
237        (27, 27, '2024-10-01', 'Present'),
238        (28, 28, '2024-10-01', 'Absent'),
239        (29, 29, '2024-10-01', 'Leave'),
240        (30, 30, '2024-10-01', 'Present'),
241        (31, 31, '2024-10-01', 'Absent'),
242        (32, 32, '2024-10-01', 'Present'),
243        (33, 33, '2024-10-01', 'Leave'),
244        (34, 34, '2024-10-01', 'Present'),
245        (35, 35, '2024-10-01', 'Absent'),
246        (36, 36, '2024-10-01', 'Leave'),
247        (37, 37, '2024-10-01', 'Present'),
248        (38, 38, '2024-10-01', 'Absent'),
249        (39, 39, '2024-10-01', 'Present'),
250        (40, 40, '2024-10-01', 'Leave'),
251        (41, 41, '2024-10-01', 'Present'),
252        (42, 42, '2024-10-01', 'Absent'),
253        (43, 43, '2024-10-01', 'Present'),
254        (44, 44, '2024-10-01', 'Leave'),
255        (45, 45, '2024-10-01', 'Absent'),
256        (46, 46, '2024-10-01', 'Present'),
257        (47, 47, '2024-10-01', 'Leave'),
258        (48, 48, '2024-10-01', 'Present'),
259        (49, 49, '2024-10-01', 'Absent'),
260        (50, 50, '2024-10-01', 'Present');
261
262  -- Insert Data into Project Table
263  INSERT INTO Project (ProjectID, ProjectName, StartDate,EndDate,
     ProjectManagerID)
264  VALUES (1, 'Project Alpha', '2024-01-01', '2024-12-31', 1),
265        (2, 'Project Beta', '2024-02-01', '2024-12-31', 2),
266        (3, 'Project Gamma', '2024-03-01', '2024-12-31', 3),
267        (4, 'Project Delta', '2024-04-01', '2024-12-31', 4),
268        (5, 'Project Epsilon', '2024-05-01', '2024-12-31', 5);
269
270  -- Insert Data into Project Allocation Table
271  INSERT INTO ProjectAllocation (AllocationID, EmployeeID, ProjectID,
     AllocationDate)
272  VALUES
273      (1, 1, 1, '2024-01-01'),
274      (2, 2, 1, '2024-01-02'),
275      (3, 3, 1, '2024-01-03'),
276      (4, 4, 2, '2024-02-01'),
277      (5, 5, 2, '2024-02-05'),
278      (6, 6, 2, '2024-02-10'),
279      (7, 7, 3, '2024-03-01'),
280      (8, 8, 3, '2024-03-02'),
```

```sql
281        (9, 9, 3, '2024-03-05'),
282        (10, 10, 4, '2024-04-01'),
283        (11, 11, 4, '2024-04-05'),
284        (12, 12, 4, '2024-04-10'),
285        (13, 13, 5, '2024-05-01'),
286        (14, 14, 5, '2024-05-03'),
287        (15, 15, 5, '2024-05-07'),
288        (16, 16, 1, '2024-06-01'),
289        (17, 17, 1, '2024-06-02'),
290        (18, 18, 2, '2024-07-01'),
291        (19, 19, 2, '2024-07-02'),
292        (20, 20, 3, '2024-08-01'),
293        (21, 21, 3, '2024-08-02'),
294        (22, 22, 4, '2024-09-01'),
295        (23, 23, 4, '2024-09-05'),
296        (24, 24, 5, '2024-10-01'),
297        (25, 25, 5, '2024-10-02'),
298        (26, 26, 1, '2024-11-01'),
299        (27, 27, 2, '2024-11-03'),
300        (28, 28, 3, '2024-12-01'),
301        (29, 29, 4, '2024-12-05'),
302        (30, 30, 5, '2024-12-10');
303
304 -- Retrieving All Records From Each Table for Verification and Analysis
305
306 -- View All Departments
307 SELECT * FROM Department;
308
309 -- View All Job Titles
310 SELECT * FROM JobTitle;
311
312 -- View All Employees with Associated Details
313 SELECT * FROM Employee;
314
315 -- View Salary Information for Each Employee
316 SELECT * FROM Salary;
317
318 -- View Attendance Records of Employees
319 SELECT * FROM Attendance;
320
321 -- View Details of Projects
322 SELECT * FROM Project;
323
324 -- View Employee to Project Allocations
325 SELECT * FROM ProjectAllocation;
```