|  |  |  |  |
| --- | --- | --- | --- |
| **Column** | **Data Type** | **Key** | **Description** |
| SSN | INT | PK | Employee ID |
| Fname | VARCHAR |  | First Name |
| Lname | VARCHAR |  | Last Name |
| BirthDate | DATE |  | Date of Birth |
| Gender | CHAR(1) |  | M/F |
| Dno | INT | FK → Dept | Department number (foreign key) |

EMPLOYEE TABLE

DEPARTMENT TABLE

|  |  |  |  |
| --- | --- | --- | --- |
| **Column** | **Data Type** | **Key** | **Description** |
| Dnum | INT | PK | Department number |
| Dname | VARCHAR |  | Department name |
| Location | VARCHAR |  | Department location |

PROJECT TABLE

|  |  |  |  |
| --- | --- | --- | --- |
| **Column** | **Data Type** | **Key** | **Description** |
| Pnum | INT | PK | Project number |
| Pname | VARCHAR |  | Project name |
| Location | VARCHAR |  | Project location |
| City | VARCHAR |  | City |
| Dnum | INT | FK → Dept | Managed by Department |

DEPENDENT TABLE

|  |  |  |  |
| --- | --- | --- | --- |
| **Column** | **Data Type** | **Key** | **Description** |
| SSN | INT | FK → Employee | Refers to employee |
| DependentName | VARCHAR | Part of PK | Name of dependent (partial key) |
| BirthDate | DATE |  | Dependent's birthdate |
| Gender | CHAR(1) |  | Dependent's gender |
| **PK** |  | **(SSN, DependentName)** | Composite primary key |

WORKS\_ON *(M:N relationship with attribute Hours)* TABLE

|  |  |  |  |
| --- | --- | --- | --- |
| **Column** | **Data Type** | **Key** | **Description** |
| SSN | INT | FK → Employee | Employee ID |
| Pnum | INT | FK → Project | Project number |
| Hours | DECIMAL |  | Hours worked |
| **PK** |  | **(SSN, Pnum)** | Composite primary key |

SUPERVISION *(Recursive 1:M on EMPLOYEE)* TABLE

|  |  |  |  |
| --- | --- | --- | --- |
| **Column** | **Data Type** | **Key** | **Description** |
| SupervisorSSN | INT | FK → Employee | Supervisor's SSN |
| SubordinateSSN | INT | PK, FK → Employee | Subordinate's SSN (unique) |

MANAGES *(1:1 with attribute HireDate)*: TABLE

|  |  |  |  |
| --- | --- | --- | --- |
| **Column** | **Data Type** | **Key** | **Description** |
| SSN | INT | PK, FK → Employee | Manager's SSN |
| Dnum | INT | UNIQUE, FK → Dept | Department number |
| HireDate | DATE |  | Date of becoming manager |