BATILLER, KIM NICOLE BSIT 2A

**One-to-One Relationship**

Let's consider a scenario where each **Person** has one **Driver's License**, and each **Driver's License** belongs to one **Person**.

**Tables:**

* **People**

| Pk\_Person\_Id | Name | Address | Fk\_License\_Id |
| --- | --- | --- | --- |
| 1 | John Doe | 123 Main St | 101 |
| 2 | Jane Smith | 456 Oak Ave | 102 |
| 3 | David Lee | 789 Pine Ln | 103 |

* **Driver\_Licenses**

| Pk\_License\_Id | LicenseNumber | ExpiryDate |
| --- | --- | --- |
| 101 | DL12345 | 2025-01-15 |
| 102 | DL67890 | 2026-05-20 |
| 103 | DL13579 | 2027-11-01 |

**Primary Key:** Pk\_Person\_Id (in People table), Pk\_License\_Id (in Driver\_Licenses table) **Unique-Foreign Key:** Fk\_License\_Id (in People table)

**Many-to-Many Relationship**

Let's consider **Students** enrolling in **Courses**. A student can enroll in multiple courses, and a course can have multiple students.

**Tables:**

* **Students**

| Pk\_Student\_Id | Name | Major |
| --- | --- | --- |
| 1 | Alice Johnson | Computer Science |
| 2 | Bob Williams | Biology |
| 3 | Charlie Brown | Mathematics |

* **Courses**

| Pk\_Course\_Id | CourseName | Department |
| --- | --- | --- |
| 101 | Intro to Python | Computer Science |
| 102 | Genetics | Biology |
| 103 | Calculus I | Mathematics |

* **Student\_Enrollments** (Junction Table)

| Pk\_Enrollment\_Id | Fk\_Student\_Id | Fk\_Course\_Id | Grade |
| --- | --- | --- | --- |
| 1 | 1 | 101 | A |
| 2 | 1 | 102 | B |
| 3 | 2 | 101 | C |
| 4 | 2 | 103 | A |
| 5 | 3 | 102 | B |
| 6 | 3 | 103 | C |

**Primary Key:** Pk\_Student\_Id (in Students table), Pk\_Course\_Id (in Courses table), Pk\_Enrollment\_Id (in Student\_Enrollments table)

**Unique-Foreign Key:** Fk\_Student\_Id and Fk\_Course\_Id (in Student\_Enrollments table)

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