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Database Documentation
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1. General Description

The *borjamoll* database is designed to manage data about students, teachers, companies, and employees within an assignment system. The purpose is to facilitate the assignment of each student to both a teacher and a company employee, enabling supervision from both educational and corporate perspectives. The design includes relationships where:

- Teachers can supervise multiple students.
- Employees, who work for specific companies, can also supervise multiple students.

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2. Database Structure

The database consists of four main tables (Teacher, Company, Employee, and Student) with specific relationships and foreign key constraints to ensure data integrity.

2.1 Teacher Table

This table stores information about teachers who supervise students. Each teacher has a unique identifier, a name, a surname, and an email address. It is related to the Student table, where each student is assigned to one teacher, but a teacher can supervise multiple students.

2.2 Company Table

This table holds data about the companies that employ the employees who supervise students. Each company has a unique identifier, a name, and a contact email. It is linked to the Employee table, where each employee is assigned to one company, though a company can have multiple employees.

2.3 Employee Table

This table contains information about employees who work for companies and may supervise students. Each employee has a unique identifier, a first name, a surname, an email, a phone number, and a reference to a company (foreign key).

- An employee can supervise multiple students.

2.4 Student Table

This table includes details about students, who are assigned both a teacher and a company employee. Each student has a unique identifier, a name, a surname, an email, a phone number, and foreign keys referencing the Teacher and Employee tables.

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3. Data Insertions

Records were inserted into each table to populate the database and allow comprehensive testing.

3.1 Teachers

Teachers were added with unique identifiers and assigned names, surnames, and emails to facilitate associations with students.

3.2 Companies

Companies were added with unique identifiers, names, and email addresses to link employees to specific companies.

3.3 Employees

Employees were added with identifiers, names, emails, phone numbers (some NULL to test handling of optional data), and company assignments.

3.4 Students

Students were added with identifiers, names, emails, phone numbers, teacher assignments, and employee assignments.

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4. Sample Queries

Examples of queries:

- Querying students by teacher and employee.
- Listing students with their teachers.
- Retrieving employees with their companies.
- Counting students per teacher.

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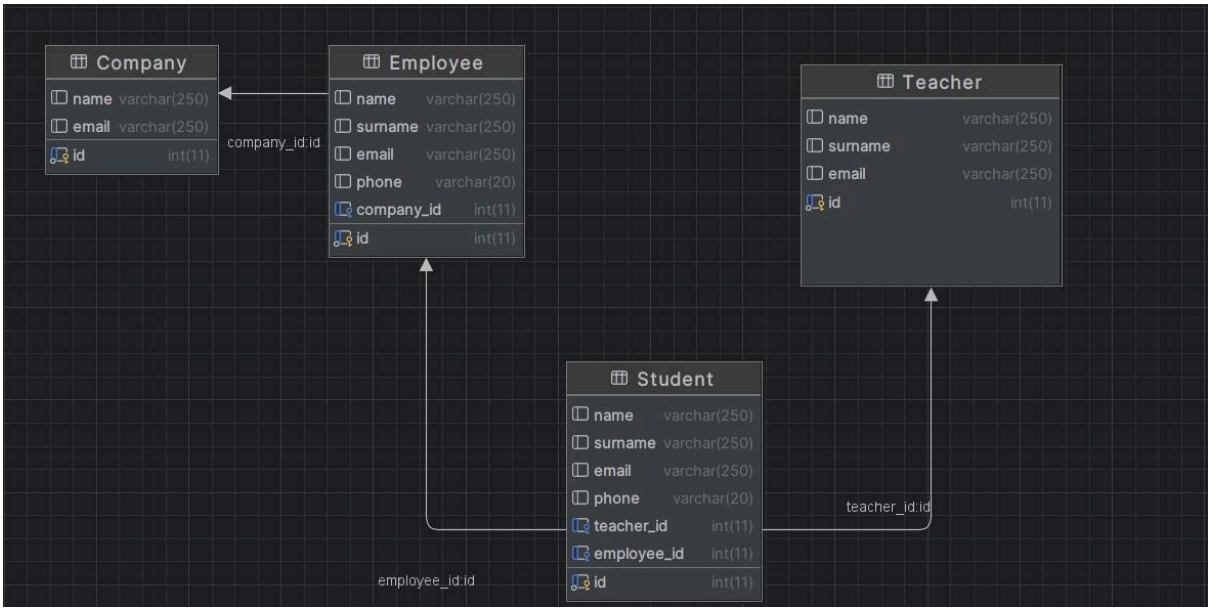
5. Database Schema



6. Considerations and Testing

The database was designed with foreign key constraints to ensure data integrity. It includes NULL values in some fields to test handling of optional data. Specific data points were added to test complex queries, such as calculating students per teacher or retrieving students assigned to specific supervisors.