## **Entity-relationship diagram:**



## **Relations:**

Level - GameRun: One to manyUser - GameRun: One to many

• Form - User: One to one

## **Normalization:**

- 1. Our scheme is in the first normal form because every field is atomic (variables are inseparable) and each table has a primary key and the values depend on this key
- 2. Every table is in the second normal form, because no functional dependencies exist in the diagram. In other words if we eliminate an attribute from a table that isn't the primary key, it will not affect other tables.
- 3. It's in the third normal form, because no transitive dependencies exist in the diagram. This defines that every attribute only depends on the primary key. A problem that we had while creating the diagram was that the table form had idUser as a foreign key, in that case everything depended on the 2 keys and not the primary one. With the change made, we deleted this dependency and normalized our diagram.
- 4. All the keys have a primary key to differentiate each record. Only the table user has a UNIQUE restriction, so multiple accounts can be created with the same mail.