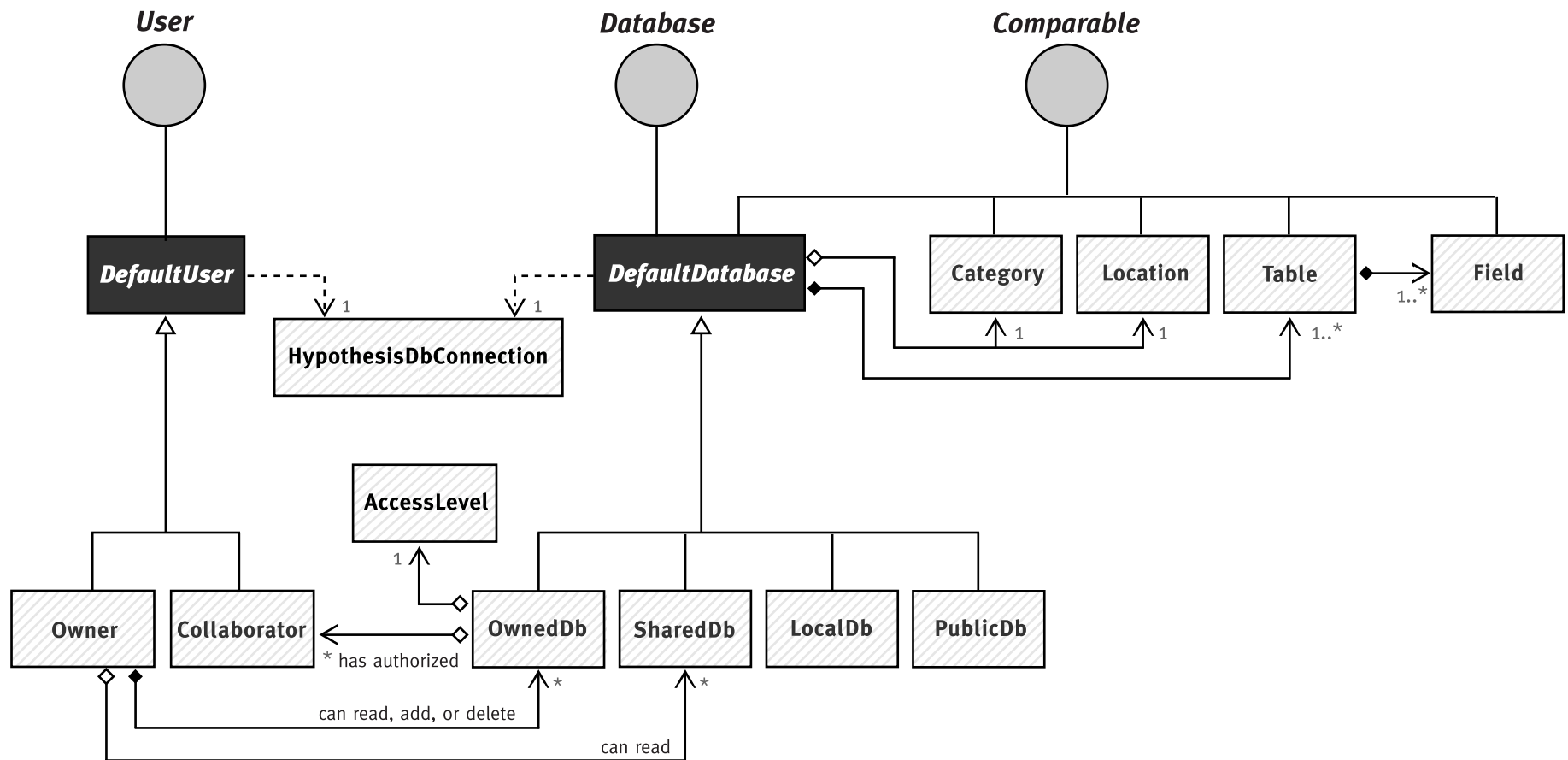


# Hypothesis

a data sharing program

## UML Diagram of Hypothesis Classes



# Hypothesis

a data sharing program

## Descriptions of Hypothesis Classes

### DATABASE

Interface that represents a scientific database; includes getter methods that return info about the scientific database, and retrieve data from the database. Scientific databases are encapsulated in Database objects.

### DEFAULTDATABASE

Default implementation of the interface Database; an abstract class intended to be extended. Includes a list a database tables.

### OWNEDDB

Subclass of DefaultDatabase. Represents a scientific database owned by the current user. Includes methods that set descriptive information about the scientific database, sharing preferences, and authorized collaborators. Contains a list of Collaborator objects.

### SHAREDDB

Subclass of DefaultDatabase. If a user is listed as a collaborator on a scientific database, he has a SharedDb object that gives him access to the data within.

### PUBLICDB

Subclass of DefaultDatabase. If a scientific database is set for public access, every user has a PublicDb object that gives her access to the data within.

### LOCALDB

Subclass of DefaultDatabase. Represents a scientific database residing on the user's local machine.

### ACCESSLEVEL

An Enum defined in the OwnedDb class that determines the access level of a Scientific Database- one of private, shared, or public.

### TABLE

A table in a scientific database is encapsulated in a Table object. Table contains a list a Records.

### FIELD

A field in a scientific database table is encapsulated in a Field object.

### CATEGORY

Categorizes a scientific database.

### LOCATION

An Enum defined in the DefaultDatabase class that gives the location of a scientific database, either local- on the user's machine, or remote- on a remote

### HYPOTHESISDBCONNECTION

A Singleton Class with methods that return Connections to the Hypothesis database and the HypothesisLocal database.

### USER

Interface that represents a user in the system; includes getter methods that return public information about a user.

### DEFAULTUSER

Default implementation of the interface User; an abstract class intended to be extended.

### COLLABORATOR

Subclass of DefaultUser. A Collaborator object represents a user who is listed as a collaborator on a scientific database.

### OWNER

Subclass of DefaultUser; represents the current user. Owner has getter and setter methods to access and change account information, and lists of Databases that the user owns or has access to.