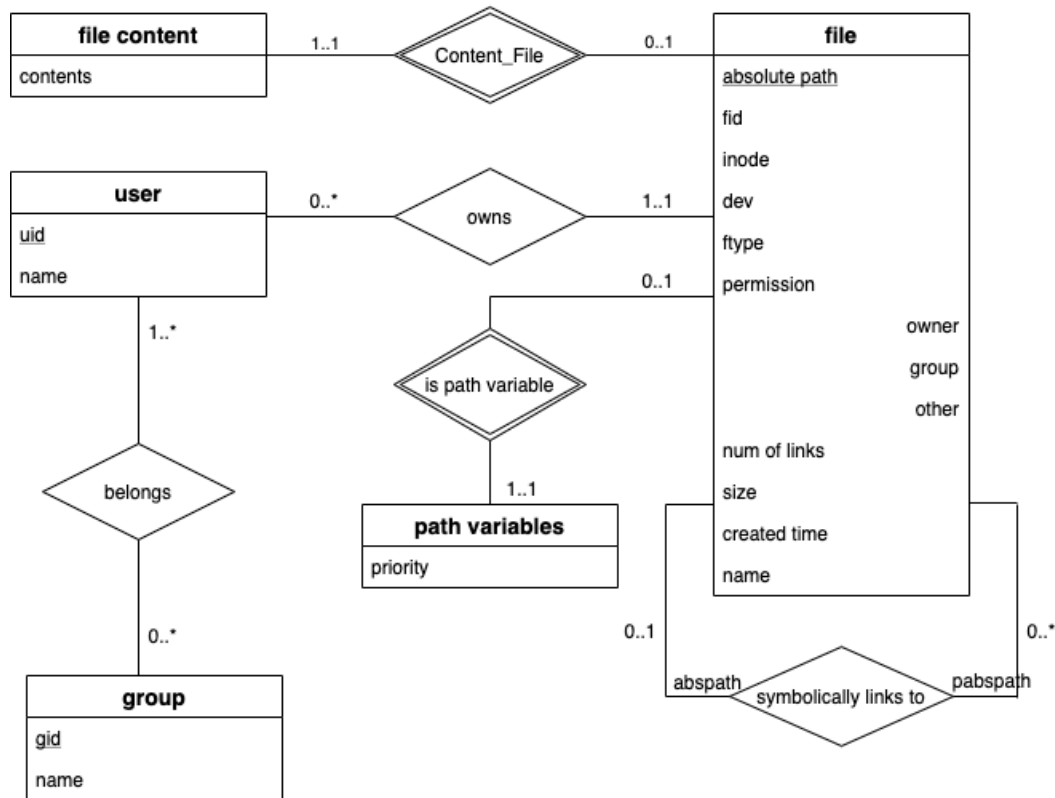


# ECE356 ER Diagram Description

RDBSH ER diagram:

RDBSH Entity Relationship Diagram



In the ER diagram shown above, there are 5 entities:

- file;
- file content;
- path variables;
- user;
- group;

The relationships that are demonstrated in the ER diagram:

*Content\_File* with cardinality limits 1..1 and 0..1 between entities *file content* and *file* represents the information:

- The file content must be the content of some file in the Unix system.
- Not every file has the corresponding file content; for instance, a directory/folder is also regarded as a file without specific contents.

*Owns* with cardinality limits 0..\* and 1..1 between entities *user* and *file* represents the information:

- *User* entity describes Unix-required mnemonic users.
- One user could own no file or several files.
- Each file must be assigned by one specific user.

*Belongs* with cardinality limits 1..\* and 0..\* between entities *user* and *group* represents the information:

- Group entity describes Unix-required mnemonic groups.
- One user could belong to at least one group.
- One group could have no user or multiple users.

*Is path variable* with cardinality limits 0..1 and 1..1 between entities *file* and *path variables* represents the information:

- One file is a path variable of the Unix system or not.
- A path variable must be a file.

*Symbolically links to* with cardinality limits 0..1 and 0..\* between roles *abspath* and *pabspath* represents the information:

- One file could refer to no file or one other file by establishing a symbolic link (or soft link).
- One file could be symbolically linked by no file or multiple other files.