

Primary Key Indexes:

a. Tool.id

Index type: Primary Key

Supports queries:

Join queries with locationrel to find the location of a tool

Lookups like Tool.query.get(tool_id) or filtering by Tool.id

Used in:

Viewing or deleting a single tool

Rendering tool listings (e.g., /get_all_tool, /location_tools/<id>)

Change location and delete tool operations

b. Location.id

Index type: Primary Key

Supports queries:

Join queries with locationrel to find all tools at a location

Lookups like Location.query.get(loc_id)

Used in:

/get_all_loc, /location_tools/<id>, and delete location operations

Foreign Key Indexes

a. locationrel.tool_id

Index type: Foreign Key

Supports queries:

Fetch tools related to a location (e.g., location.tools.all())

Deletion of tools and associated locationrel entries via cascade

Used in:

/location_tools/<id>, deletion of a tool, changing location

b. locationrel.loc_id

Index type: Foreign Key

Supports queries:

Fetch locations related to a tool

Delete associated locationrel rows when a location is deleted

Used in:

/get_all_tool, changing location, and reverse lookups from tool to location

Name Columns

a. Tool.name and Tool.type

Index type: Optional

Supports queries:

Sorting tools alphabetically by name or type

Potential future filtering/searching by tool name/type

Used in:

/get_all_tool with sorting by name or type

b. Location.name

Index type: Optional — consider adding

Supports queries:

Sorting locations alphabetically by name

Used in:

/get_all_loc