Feature 2: How does H2 support multiple SQL commands?

To do this, we chose the way in which rows are being inserted and deleted to the table. DML operations are quite essential in every database as they are used to work with the actual data in tables. The insert statement is used to add new rows to the table and delete statement deletes rows from the table in a particular schema

When the user clicks on the "Run" button in the UI, it spawns a new thread in the WebThread class. The run method calls the process method which will, in turn, call the query method in WebApp.java. The query method will create a JDBC connection object. Then it will call getResult method in WebApp.java which will

1. Create a JDBC statement using the connection object previously created
2. Call execute function in JDBCStatement.java on the statement object passing the SQL string

The execute function will call executeInternal function in JDBCStatement.java which will prepare the SQL command by making consecutive calls to appropriate methods in the Parser class.

Once we prepare the command, we'll check if it's query or not. If it's not a query as in this case it'll call the executeUpdate method in Command.java. This starts a new transaction and calls the update method in the CommandContainer. Then it calls the update() method which is overloaded and present in multiple classes that correspond to various SQL commands. For example- For the insert command, "It calls the update() in Insert.java, which in turn calls insertRows()", and for the delete command - "It calls the update() in Delete.java, which in turn calls removeRows()"

```
                        ┌─────────────────┐
                        │  run ()         │
                        │  WebThread.java │
                        └────────┬────────┘
                                 │
                                 ▼
                        ┌─────────────────┐
                        │  process ()     │
                        │  WebThread.java │
                        └────────┬────────┘
                                 │
                                 ▼
┌──────────────────┐  ①  ┌─────────────────┐
│ JDBC connection  │◄─────│  query ()       │
│                  │     │  WebApp.java    │
│                  │─────►└────────┬────────┘
└──────────────────┘  Connection   │ ②
                       object       ▼
┌──────────────┐  ①  ┌─────────────────┐
│ JDBC         │◄─────│  getResult ()   │
│ Statement    │     │  WebApp.java    │
│              │─────►└────────┬────────┘
└──────────────┘  statement    │ ②
                  object        ▼
                        ┌─────────────────┐
                        │  execute ()     │
                        │  JDBCstatement. │
                        │  java           │
                        └────────┬────────┘
                                 │
                                 ▼
┌──────────┐  sql string ┌──────────────────────┐
│ Parser.  │◄────────────│ executeInternal()    │
│ java     │             │ JDBCstatement.java   │
│          │────────────►└──────┬───────────┬───┘
└──────────┘  command         │           │
                        command │           │ command != query
                        = query ▼           ▼
                  ┌──────────────┐   ┌─────────────────┐
                  │ executeQuery()│   │ executeUpdate() │
                  │              │   │ Command.java    │
                  └──────────────┘   └────────┬────────┘
                                              │
                                              ▼
```

```
                    update()
              Command Container java

        ┌──────────┬──────────┬──────────────┐
        │          │          │              │
   INSERT       DELETE      UPDATE      CREATETABLE
        │          │          │ . . . . .    │
        ▼          ▼          ▼              ▼

   update()      update()
   Insert java   Delete java
        │          │
        ▼          ▼

  insertRows()  removeRow
   Insert java     ()
```