

# DBMS REPORT

*Assignment 3: Database Management System*

*2<sup>nd</sup> Year, CSED, Alexandria University*

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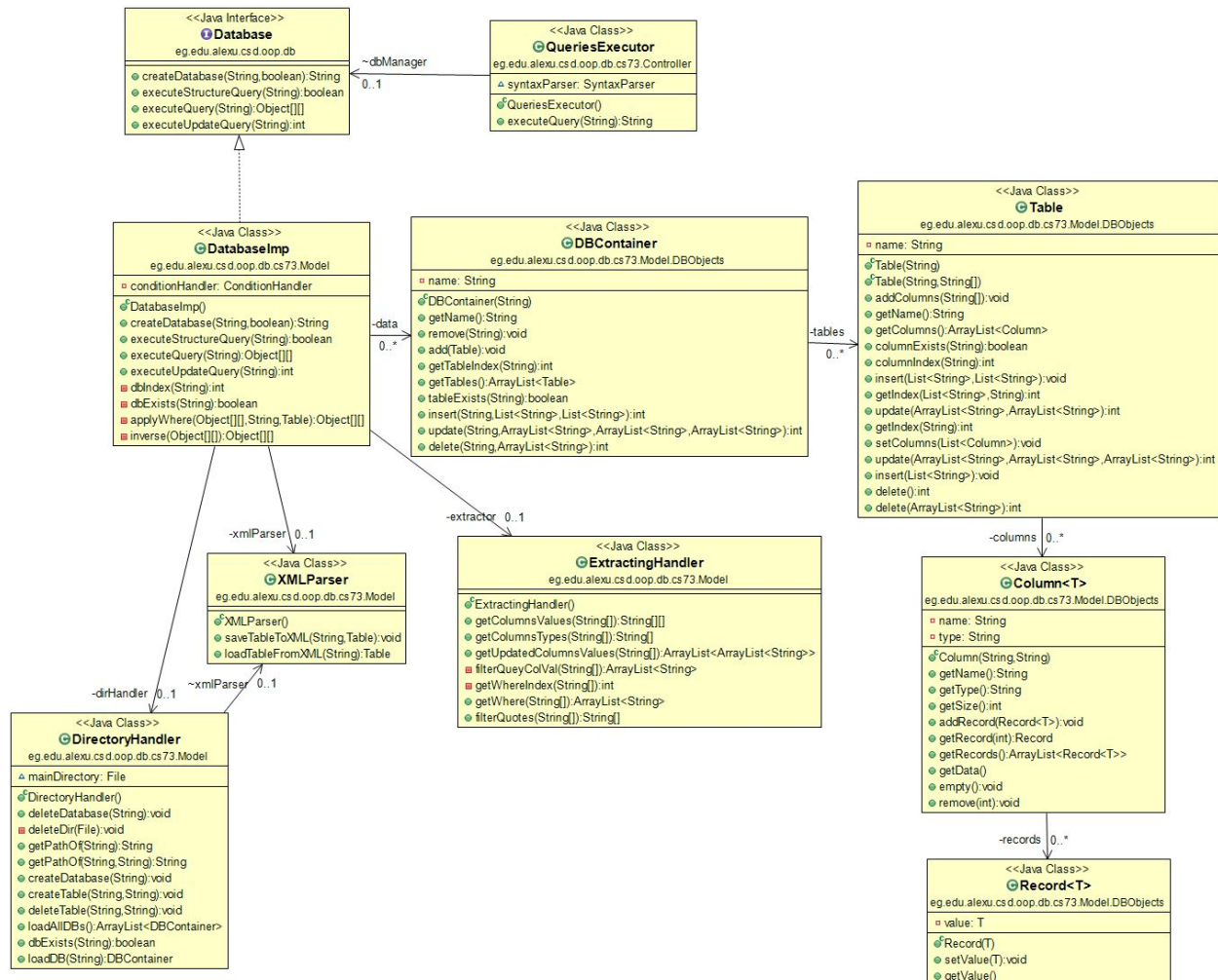
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## INTRODUCTION

A Console Application that controls the organization, storage, management, and retrieval of data in a database. Queries are entered in SQL syntax.

## UML DIAGRAMS



## OUR DESIGN

The Program Consists Primarily of 3 Parts, Model, View and Controller, According to MVC architectural pattern.

- **Model**

*Model* is represented with multiple Classes used for caching data such as

- DBContainer

Which is the class responsible for model Database as object and it uses Tables.

- Table

Which is responsible for modeling a Table as an object and it uses columns.

- Column

Which is responsible for modeling a Column in a Table and it uses Record as each column contains set of records.

- Record

It is the basic element which represents a cell in DataBase table .

## SNAPSHOTS

**Fig.1 : CMD UI**

```
Input command :  
CREATE DATABASE DB2  
DATABASE CREATED SUCCESSFULLY  
Input command :  
CREATE Table table____1(column1 int , column2 varchar)  
TABLE CREATED SUCCESSFULLY  
Input command :  
Insert into table____1 values (3 , 'whatever')  
1 ROWS HAS BEEN UPDATED  
Input command :  
select * from table____1  
3 whatever  
Input command :
```

## USER GUIDE

- **How to run the application**

1. This is a console application, which means that you should run it through your terminal or cmd.
2. In the terminal/cmd, type this command:

*java -jar full\_path\_of\_the\_jar\_file*

3. The application should run inside your terminal/cmd and you should see the string "Input command: ".
4. Type any one of the supported SQL queries (See: Supported Queries section).

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- **Supported SQL Queries**

1. Create database
2. Create table
3. Insert into table
4. Delete from table
5. Drop database
6. Drop table
7. Select from table
8. Update table

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- **SQL Queries References**

1. W3 Schools: <https://www.w3schools.com/sql/>
2. Code Academy: <https://www.w3schools.com/sql/>