DATABASE SYSTEMS AND CLOUD COMPUTING

2nd Homework Assignment

Due on: November 21, 2022

The following schema will be used in the homework:

```
Suppliers(sid:integer, sname:string, city:string, street:string)
Parts(sku:integer, pname:string, stock_level:integer, color:string)
Catalog(sid:integer, sku:integer, unit_price:float)
Order(oid:integer, sid:integer, sku:integer, quantity:integer)
```

In the schema, the primary key of each relation is underlined, and the domain of each field is listed after the field name. The schema describes suppliers, parts and orders placed to the suppliers for parts. The ***Catalog*** table lists the prices charged for parts by suppliers. Its ***sid*** attribute is a foreign key into the Suppliers table, indicating to which supplier the order is placed. Also, ***sku*** is a foreign key into the ***Parts*** table. Each order gives information about a particular part that is included in the order. In the ***Order*** table, ***sid*** is a foreign key into the ***Suppliers*** table and ***sku*** is a foreign key into the ***Parts*** table.

Task-1: Write the DDL statements required to create the tables, including appropriate primary and foreign key integrity constraints. Implement the task in python:

```
from mysql import connector

my_connection = connector.connect(
    host="localhost",
    user="root",
    password="Secret_123",
    database="banking"
)

my_cursor = my_connection.cursor()

"""
create tables
"""
my_cursor.execute("""
    insert a ddl statement
) engine=innodb
""")
```

Task 2: Write the DML statements to insert sample data to the tables. Implement the task in python.

Task 3: Write the SQL statement to find the supplier names who supply some red part. Implement the task in python.

Task 4: Write the SQL statement that will return the supplier identifier, supplier name the total order value for each supplier with a total order value of at least 100.0. The value for each order is the quantity times the part's unit price charged by that supplier. The total order value for a supplier is the sum of all the orders placed to the supplier. Implement the task in python.

IMPORTANT

- Academic dishonesty, including but not limited to cheating, plagiarism, and collaboration, is unacceptable and subject to disciplinary action. Any student found guilty will have a grade of F. Assignments are due in class on the due date. Late assignments will generally not be accepted. Any exception must be approved. Approved late assignments are subject to a grade penalty.