DATABASE MANAGEMENT SYSTEM

ASSIGNMENT 4-REPORT

PAYROLL MANAGEMENT SYSTEM

Submitted in partial fulfillment of the requirements for the V Semester
Database Management System course (UE19CS301)

TEAM:15

Bachelor of Engineering In

Computer Science

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OPERATIONS ON DATABASE:

1. Selecting Operation:

```
C:\Users\tejas_the_great\Downloads>python dbb.py

************************
PAYROLL MANAGEMENT SYSTEM
************************



Please select operation -
1. add_details
2. view_details
3. queries
4. view_paygrade(as per employee ID)
5. exit database

Select an operation from 1-5 :S
```

2. Adding details (Inserting details of company) :

```
Please select operation -
1. add_details
2. view_details
3. queries
4. view_paygrade(as per employee ID)
5. exit database

Select an operation from 1-5 :1

please select detail to add -
1. add user
2. add company
3. add department
4. add project
5. add employee
6. add bank acc
7. add paygrade
8. add payroll

 select a no from 1-8 :2
please enter company details:

comp_id :9678
comp_name :jio
comp_addr :12 tripura
comp_number :67782

********************
SUCCESFULLY INSERTED
********************
```

3. Viewing details of company

```
Please select operation -
1. add_details
2. view_details
3. queries
4. view_paygrade(as per employee ID)
5. exit database

Select an operation from 1-5 :2

please select detail to view -
1. view user
2. view company
3. view department
4. view project
5. view employee
6. view bank acc
7. view paygrade
8. view payroll

 select a no from 1-8 :2
comp_id:123 | comp_addr:texas USA | comp_name:TESLA | comp_number:990021
comp_id:13555 | comp_addr:Amritsar | comp_name:Jio | comp_number:45634745
comp_id:74184 | comp_addr:TexasUSA | comp_name:Google | comp_number:45637547
comp_id:13455 | comp_addr:Germany | comp_name:Spacex | comp_number:53464763
comp_id:83455 | comp_addr:Maharastra | comp_name:Reliance | comp_number:45363464
comp_id:74884 | comp_addr:Banglore | comp_name:swiggy | comp_number:43636633
comp_id:93455 | comp_addr:France | comp_name:Microsoft | comp_number:36773346
comp_id:17455 | comp_addr:Chennai | comp_name:zomato | comp_number:364477344
comp_id:76884 | comp_addr:Kolkata | comp_name:Amazon | comp_number:346737344
comp_id:9678 | comp_addr:12 tripura | comp_name:jio | comp_number:67782
```

4. Query1:Displays list of employees working in Microsoft

```
Please select operation -
1. add_details
2. view_details
3. queries
4. view_paygrade(as per employee ID)
5. exit database

Select an operation from 1-5 :3

please select any query -
1. view employess working in microsoft
2. increase the size of sales department
3. view average salary female employees earn
4. view paygrade of employees having salaray above 40000
5. hike slaries of employess by 10%

enter a query no(1-5) from above: 1
7556   Chandana
```

5. Query2:Displays pay-grade status of employees with salary >40000

```
Please select operation -
1. add_details
2. view_details
3. queries
4. view_paygrade(as per employee ID)
5. exit database

Select an operation from 1-5 :4
enter emp_id:104
paygrade_id:6537 | employee_id:104 | job_title:Manager | job_grade:A | basic_salary:32000 | bonus:3000 | taxes:1000 | penalties:1000 | final_salary:33000 | allowances:2000 | total_amount:35000
```

6. Exit database

```
Please select operation -
1. add_details
2. view_details
3. queries
4. view_paygrade(as per employee ID)
5. exit database

Select an operation from 1-5 :5

**************
  THANK YOU
**************
```

DBMS MIGRATION(Reasons to pick PostgreSQL over MySQL):-

I. PostgreSQL supports the FULL OUTER JOIN, INTERSECT , and EXCEPT

operations while MySQL doesn't.

II. PostgreSQL is suitable for applications in which data needs to be

authenticated and fast read/write operations are critical for smooth

functionality.

III. It also supports a number of performance enhancement features which are

usually available in proprietary solutions, including concurrency support

without the use of read locks, SQL server, and geospatial data support

among many others.

IV. In general, PostgreSQL is well-suited for systems that require execution of

complex queries or data warehousing and data analysis. It is a good option

for OLAP & OLTP systems that must support many users at once

V. PostgreSQL is largely SQL compliant and meets nearly all the core features

of the SQL standard while MySQL is partially SQL compliant and does not include certain features

The dependencies installed for the database connectivity (front end to back end)

● Just installed the MySQL module for database connectivity libapache2-mod-php7.0 was used for the web server

● MySQL basically connects the PHP scripting engine to the MySQL server (using the procedural method- that's an important point for the writeup)

● For migration, we're transferring data from MySQL to PostgreSQL

If have to migrate to any No-SOL variety, then WE WOULD select Mongodb because :-

● The major difference between Mongodb and SQL Databases is the way they handle data. In SQL databases, data is stored in form of traditional 2 dimensional row-column structure while in MongoDB rich data document model is followed, which allows storage of any type of data

● MongoDB Documents also align with the structure of objects in modern programming languages, as they are a form of JSON. This makes it easy for developers to map the data used in the application to its associated document in the database. While in SQL Database, creating a table with

columns mapped to the attributes of an object in programming language,

appears a little tedious.

TEAM CONTRIBUTION:-

TEJAS KUMAR S	Creating queries,screenshots of changes in front end
U SUCHITHRA	Insertions into the database, modifications in schema
SUDIPTA PAHARI	Documentation and reasoning