

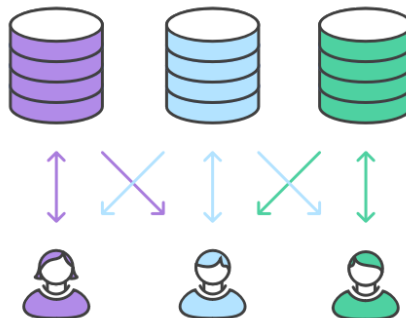
Data Warehousing Using IBM Cloud Db2

-By Dhina Karan

RegNo:732721104014

Here I am creating one Banking Sector Data Warehouse where multiple datatables or entities are there.

Here we creating the Database using Mysql Database :
Banking_sector(Sql file is attached on Github)



Describing Entities belongs to database:

- Employee
- Customer
- Accounts
- Branch
- Loan

This all are the entities belongs to database

Employee:

Id	Name	Email	Contact	Address	Position

Customer:

Id	customer_id	Customer_type	account_no	branch_id	email

Accounts:

Id	account_id	account_type	account_no	current_balance	date_opened

Branch:

Id	Branch_id	branch_code	branch_name	address

Loan:

Id	loan_id	start_date	end_date	loan_type	loan_amount	user_id

Now for performing some Operation i am using the sql Queries:

For data Insertion:

Data insertion in Account:

```
<!-- insert data for Accounts -->
<?php
include 'conn.php';

$account_id='';
```

```

$account_type='';
$account_number='';
$current_balance='';
$date='';

$sql = "INSERT INTO `account`(`account_id`, `account_type`,
`account_number`, `current_balance`, `date_opened`)
VALUES('$account_id','$account_type','$account_number','$current_balance',
'$date')";
$result = mysqli_query($conn, $sql) or die("Query Unsuccessful.");

if($result){
    echo "successfull";
}else{
    echo "unsuccessfull";
}

mysqli_close($conn);
?>

<!-- insert data for Accounts -->

```

Data insertion For Employee:

```

<!-- insert data for Employee -->
<?php
include 'conn.php';

$name = '';
$email = '';
$position = '';
$contact = '';
$address = '';

```

```

$sql = "INSERT INTO `employee`(`name`, `email`, `position`, `contact`,
`address`)
VALUES('$name','$email','$position','$contact','$address')";
$result = mysqli_query($conn, $sql) or die("Query Unsuccessful.");

if($result){
    echo "successfull";
}else{
    echo "unsuccessfull";
}

mysqli_close($conn);

?>
<!-- insert data for Employee -->

```

Data Insertion for Branch:

```

<?php
include 'conn.php';
$branch_id = '';
$branch_name = '';
$branch_code = '';
$address = '';

$sql = "INSERT INTO `branch`(`branch_id`, `branch_name`, `branch_code`,
`address`)
VALUES('$branch_id','$branch_name','$branch_code','$address')";
$result = mysqli_query($conn, $sql) or die("Query Unsuccessful.");

if($result){
    echo "successfull";
}else{
    echo "unsuccessfull";
}

mysqli_close($conn);

```

```
?>
```

Data Insertion For loan:

```
<!-- insert data for Loan -->
<?php
include 'conn.php';

$loan_id = '';
$st_date = '';
$end_date = '';
$loan_type = '';
$loan_amount = '';
$user_id = '';

$sql = "INSERT INTO `loan`(`loan_id`, `start_date`, `end_date`,
`loan_type`, `loan_amount`, `user_id`) VALUES
('$loan_id','$st_date','$end_date','$loan_type','$loan_amount','$user_id')
";
$result = mysqli_query($conn, $sql) or die("Query Unsuccessful.");

if($result){
    echo "successfull";
}else{
    echo "unsuccessfull";
}

mysqli_close($conn);
?>

<!-- insert data for Loan -->
```

Now We have data stored into database so now we can work on retrieving the data from database

Now here Here **Two Approaches are there** 👍

- **Fetch All the data**
- **Fetch Particular data**

For Fetch all the data 👍

Sql = SELECT * FROM `data_table_name`

For Fetch particular data We can use the where clause

Sql =SELECT * FROM `table` WHERE attribute = attribute

Now the final work Show in the user application

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
```

```

<link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.
css" rel="stylesheet"

integrity="sha384-T3c6CoIi6uLrA9TneNEoa7RxnatzjcDSCmG1MXxSR1GAsXEV/Dwwykc2
MPK8M2HN" crossorigin="anonymous">
    <title>Account Details</title>
</head>

<body>

    <div class='container'>
        <h2 style="text-align:center">Account Details</h2>
        <?php
            include 'conn.php';

            $sql = "SELECT * FROM table_name";
            $result = mysqli_query($conn, $sql) or die("Query Unsuccessful.");

            if (mysqli_num_rows($result) > 0) {
                ?>
                <table class="table">
                    <thead>
                        <tr>
                            <th scope="col">#</th>
                            <th scope="col">First</th>
                            <th scope="col">Last</th>
                            <th scope="col">Handle</th>
                        </tr>
                    </thead>
                    <tbody>
                        <?php
                            while ($row = mysqli_fetch_assoc($result)) {
                                ?>
                                <tr>
                                    <th scope="row">1</th>
                                    <td><?php echo $row['e1']; ?></td>
                                </tr>
                            <?php } ?>

```



```
        </tbody>
    </table>
    <?php } else {
        echo "<h2>No Record Found</h2>";
    }
    mysqli_close($conn);
    ?>
</div>

<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/js/bootstrap.bundle
.min.js"

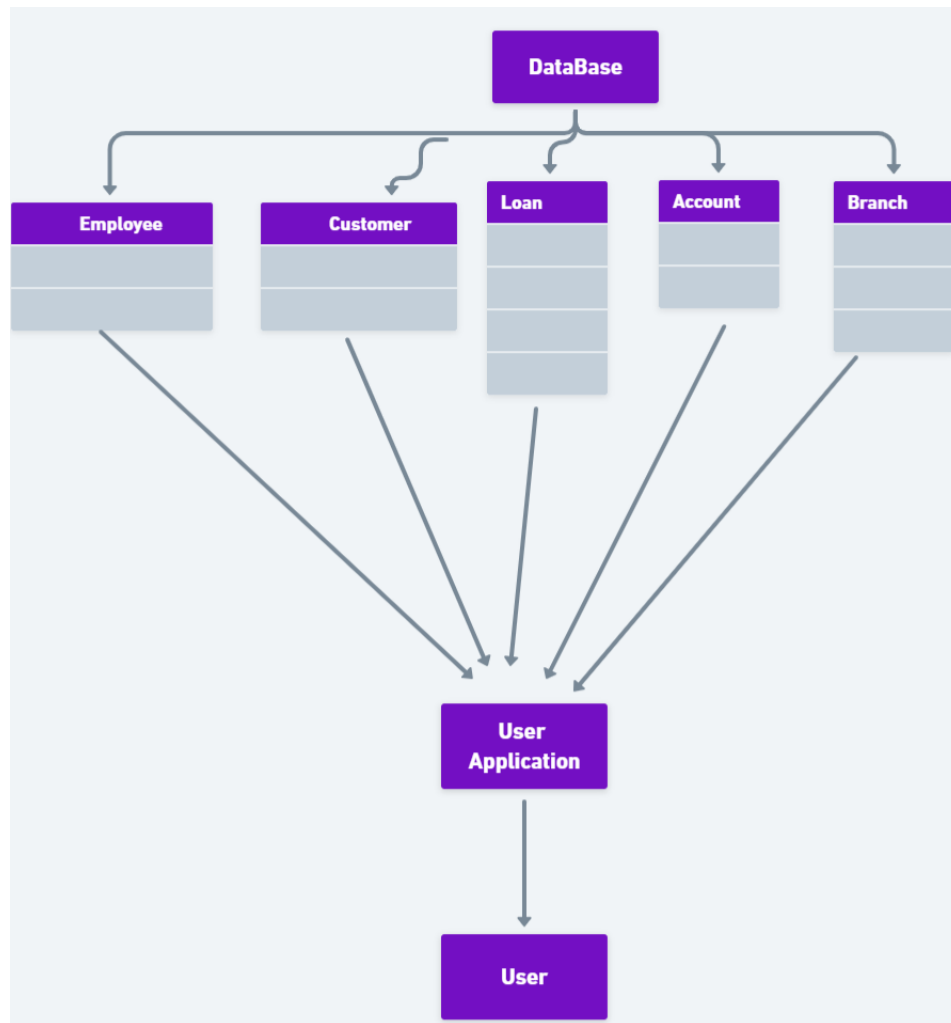
integrity="sha384-C6RzsynM9kWDrMNeT87bh95OGNyZPhcTNXj1NW7RuBCsyN/o0jlpcV8Q
yq46cDfL"

crossorigin="anonymous"></script>

</body>

</html>
```

The in this way the data flow will be maintain in the database



Here the IBM Cloud db2 will help us for optimization for data flow and storing the data