SUMMER INDUSTRIAL TRAINING

UNDER:

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Submitted By: -

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ABOUT ONGC

Maharatna ONGC is the largest crude oil and natural gas Company in India, contributing around 75 per cent to Indian domestic production. Crude oil is the raw material used by downstream companies like IOC, BPCL, and HPCL (subsidiary of ONGC) to produce petroleum products like Petrol, Diesel, Kerosene, Naphtha, and Cooking Gas-LPG.

This largest natural gas company ranks 11th among global energy majors (Platts). It is the only public sector Indian company to feature in Fortune's 'Most Admired Energy Companies' list. ONGC ranks 18th in 'Oil and Gas operations' and 220 overall in Forbes Global 2000. Acclaimed for its Corporate Governance practices, Transparency International has ranked ONGC 26th among the biggest publicly traded global giants. It is most valued and largest E&P Company in the world, and one of the highest profit-making and dividend-paying enterprise.

ONGC has a unique distinction of being a company with in-house service capabilities in all areas of Exploration and Production of oil & gas and related oil-field services. Winner of the Best Employer award, this public sector enterprise has a dedicated team of over 30,000 professionals who toil round the clock in challenging locations.

ONGC Videsh is a wholly owned subsidiary of Oil and Natural Gas Corporation Limited (ONGC), the National Oil Company of India, and is India's largest international oil and gas Company. ONGC Videsh has participation in 39 projects in 19 countries namely Azerbaijan, Bangladesh, Brazil, Colombia, Iraq, Israel, Iran, Kazakhstan, Libya, Mozambique, Myanmar, Namibia, Russia, South Sudan, Syria, United Arab Emirates, Venezuela, Vietnam and New Zealand. ONGC Videsh maintains a balanced portfolio of 14 producing, 4 discovered/under development, 18 exploratory and 3 pipeline projects. The Company currently operates/

jointly operates 21 projects. ONGC Videsh has 2P reserves of 675.721 MMTOE as on 01 April 2019.

IMPORTANT INFORMATION:

- **Name of the company** - **Oil & Gas Corporation Ltd.**
- **Industry/ Sector** - **Energy**
- **Products** - **Petroleum, natural gas, petrochemicals**
- **Founded on** - **14 Aug 1956**
- **Ownership** - **Public sector**
- **Headquarters** - **Dehradun, Uttarakhand**
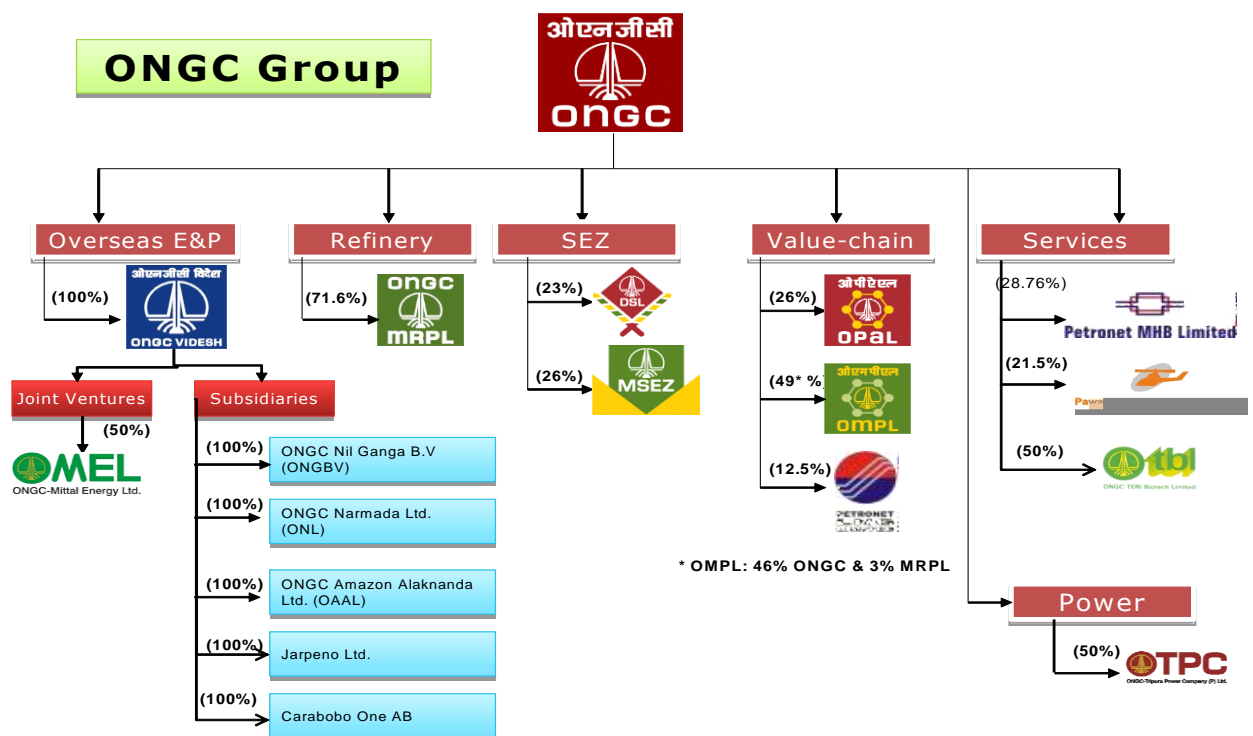- **No. of employees** - **33635**
- **Total Assets** - **US $ 210 Billion**

FUNCTIONS

- **Exploration of oil and gas within territorial jurisdiction of India**

- **Production of oil and gas**

- **Supply of oil and gas to downstream companies like IOCL, HPCL, BPCL**

- **Enhance Indian presence in the world oil & gas industry through its subsidiary ONGC Videsh Limited**

- **To Provide energy security to India**

PRODUCTS & SERVICES

- **Crude oil**

- **Natural gas**

ORGANISATIONAL STRUCTURE

Project Objective

The objective of the project is to keep the database updated with the single click of a button which can perform all the updating process of the database. The ONGC department receives the MPI list which contains all the information about the employees like **CPF number, Name, Designation, ONGC_Code, Level, Class, Discipline, Location**, etc. Now the department have to keep the records of all the new employees added to the list and then have to manipulate the database according to that. This project will help in keeping the database well maintained and will enable the user to access the data stored in their excel files and display it using PHP.

The second part of the project contains the linkage of the CPF number of the employee to any order placed for them. The user can select any number of employees to a particular document and then further use it when required.

The data is fetched from the excel file using the PHP Open database connectivity (ODBC) which is an application programming interface that allows a programmer to abstract a program from a database. With an ODBC connection, you can connect to any database, on any computer in your network as long as an ODBC connection is available.

Tools Used:

> ## Microsoft Excel:
> ONGC receives the updated data from database through Excel sheets as MPI's. Now the work is to transfer the data from the excel sheet to the database by establishing connectivity using ODBC. All the information is in Excel sheets.

➤ PHP Database ODBC:

With an **ODBC connection,** you can connect to any database, on any computer in your network, as long as an ODBC connection is available.

Here is how to create an ODBC connection:

- Open the **Administrative Tools** menu in your control panel.
- Double click on the **Data Sources (ODBC)** icon inside.
- Choose the **System DSN** tab.
- Click on **add** in the system DSN tab.
- Select the **Microsoft Excel Driver**. Click **Finish**.
- In the next screen, click **Select** to locate the database.
- Give the database a **Data Source Name (DSN)**.
- Click **Ok**.

➤ PHP (Hypertext Pre-processor):

PHP is one of the most commonly used programming languages for dynamic website development. It is reasonably powerful and efficient. It also happens to be quite simple and can be a great language for beginners because of its flexibility.

PHP is good as a language on its own (especially when coupled with XHTML). However, the majority of applications need a convenient data-storage method, typically fulfilled by a database, such as MySQL or PostgreSQL. For PHP to connect to data-storage systems, a connector is required that allows functions like **mysql_query()** and **pg_query().** This works under most circumstances, but occasionally, business requirements demand that data be stored in something like a spreadsheet that can be more easily manipulated by individuals. In these situations, a different type of connector is required to talk to the data. For writing the PHP code I used notepad++ as my text editor as it contains all the essential drivers for the PHP code and all the properties of HTML and CSS.

➢ **HTML (Hypertext markup language) and CSS (Cascading style Sheets):**

Hypertext Markup Language is the standard markup language for documents designed to be displayed in a web browser.

CSS (Cascading Style Sheets) is a declarative language that controls how webpages look in the browser.

Findings and Background Study

As soon as I came to know about this project, I started studying PHP language. I covered all the basic understanding needed to start with my project which included using comments, primitive data types and their declaration. After this I started working with variables, Math operators. After getting

familiar with the basics I moved to the implementation of conditional branches and looping statements.

Then I started to study about the user interface and its implementation. Understanding the concepts of displaying messages on screen through pop ups and interacting with the user using these pop ups. I started learning message boxes, different kinds of message boxes and how to use conditional message boxes. It included using different signs, titles, exclamation, and question mark within a message box. Using yes, no, cancel, abort buttons in a message box added more functionality to the message box. Later I got familiar with input boxes. Through input boxes we could take input from the user in between the execution of the program and use its value in the program.

After getting necessary information about PHP I started revising SQL language which would be used in queries. All the basic functions of creating, updating, inserting and deleting records were to be used in this project.

After it I started to learn about the open database connectivity (ODBC) which allows us to form a connectivity to any database. It involves various functions to retrieve, delete, edit and to add details to the tables. After we are done with fetching the data, we can close the ODBC connection using **odbc_close($conn)** command where **$conn** refers to the name of the variable containing connection.

Implementation

Firstly, this project consists of two excel files which contains the employee details like cpfno, name, designation, postings, date of joining and retirement etc.

Sheet2:

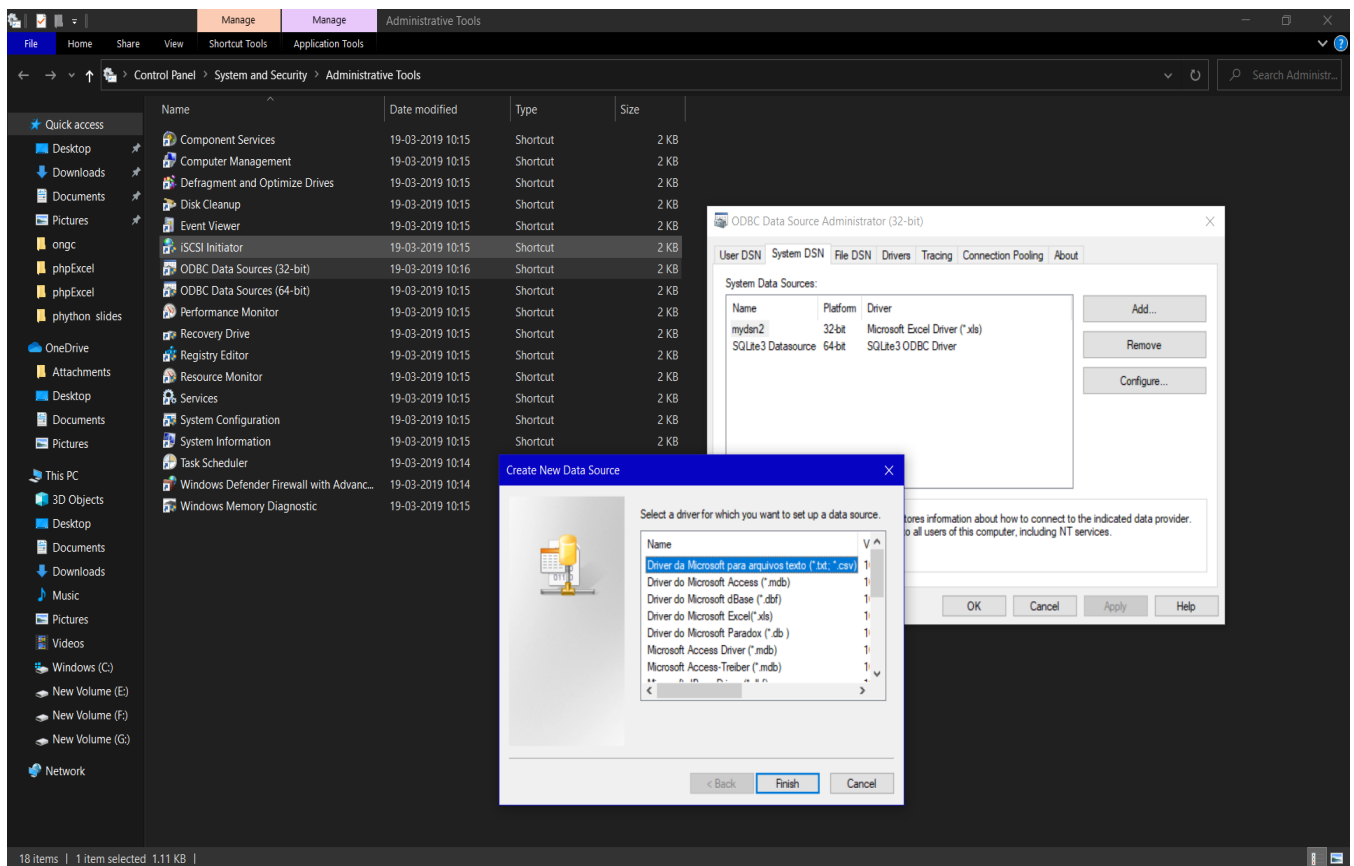| CPFNO NAME	GENDER K	CATEGOR	DESIGNATION TEXT	LEVEL	DISCIPLINE TEXT	SUB DISP TEXT
24101 SUNITA KHANNA	F	GN	Deputy General Manager (HR)	E5	HUMAN RESOURCE	HUMAN RESOURCE
24121 RAKESH GUPTA	M	GN	Chief General Manager (Electronics & Telecom)	E7	ELECTRONICS & TELECOMMUNICATIONS	ELECTRONICS & TELE
24122 DHIRENDRA KUMAR DHIRAJ	M	GN	Chief General Manager (Electronics & Telecom)	E7	ELECTRONICS & TELECOMMUNICATIONS	ELECTRONICS & TELE
24125 ARUN FOTEDAR	M	GN	General Manager (Electronics & Telecom)	E6	ELECTRONICS & TELECOMMUNICATIONS	ELECTRONICS & TELE
24201 RAJENDER SINGH RAWAT	M	GN	Senior HR Executive	E2	HUMAN RESOURCE	HUMAN RESOURCE
24215 JAGMOHAN SINGH RAWAT	M	GN	Deputy General Manager (HR)	E5	HUMAN RESOURCE	HUMAN RESOURCE
24225 RENU DAYAL WAHI	F	GN	Chief Manager (Finance & Accounts)	E4	FINANCE & ACCOUNTS	ACCOUNTS
24232 ROOP SINGH	M	GN	Senior Superintendent (Duplicating Mach.)	S3	PERSONNEL & ADMINISTRATION	DUPLICATING MACH

Sheet1:

CPFNO NAME	DESIGNATION TEXT	ONGC_COD	LEVEL	CLASS	DISCIPLINE TEXT	SUB DISP TEXT
24101 SUNITA KHANNA	Deputy General Manager (HR)	1407410	E5	1	HUMAN RESOURCE	HUMAN RESOURCE
24117 RAKESH KHURANA	General Manager (Electronics & Telecom)	1305310	E6	1	ELECTRONICS & TELECOMMUNICATIONS	ELECTRONICS & TELECO
24121 RAKESH GUPTA	Chief General Manager (Electronics & Telecom)	1205310	E7	1	ELECTRONICS & TELECOMMUNICATIONS	ELECTRONICS & TELECO
24122 DHIRENDRA KUMAR DHIRAJ	Chief General Manager (Electronics & Telecom)	1205310	E7	1	ELECTRONICS & TELECOMMUNICATIONS	ELECTRONICS & TELECO
24125 ARUN FOTEDAR	General Manager (Electronics & Telecom)	1305310	E6	1	ELECTRONICS & TELECOMMUNICATIONS	ELECTRONICS & TELECO
24201 RAJENDER SINGH RAWAT	Senior HR Executive	1707410	E2	1	HUMAN RESOURCE	HUMAN RESOURCE
24215 JAGMOHAN SINGH RAWAT	Deputy General Manager (HR)	1407410	E5	1	HUMAN RESOURCE	HUMAN RESOURCE
24225 RENU DAYAL WAHI	Chief Manager (Finance & Accounts)	1507210	E4	1	FINANCE & ACCOUNTS	ACCOUNTS

After that go to windows administrative tools -> ODBC data source -> Click on add -> Name your DSN -> Select the files u want to add -> Select the MS Excel Driver -> click finish.

Thus, u have established a connection between PHP and your Excel File through the ODBC data source.

Now for displaying the data of both the excel sheets:

We will come to our PHP file.

Firstly, I will make a connection using **odbc_connect** function which takes 3 parameters: data source name, username and password.

In order to display the information of both the excel files we will use the **odbc_exec** function which will select the data of all the columns of the sheets.

Employee List

Table 1

CPFNO	NAME	DESIGNATION TEXT	ONGC_CODE	LEVEL	CLASS	DISCIPLINE TEXT	SUB DISP TEXT	PERSONAL AREA
24101.0	SUNITA KHANNA	Deputy General Manager (HR)	1407410.0	E5	1.0	HUMAN RESOURCE	HUMAN RESOURCE	DELI
24117.0	RAKESH KHURANA	General Manager (Electronics & Telecom)	1305310.0	E6	1.0	ELECTRONICS & TELECOMMUNICATIONS	ELECTRONICS & TELECOM	OVLD
24121.0	RAKESH GUPTA	Chief General Manager (Electronics & Telecom)	1205310.0	E7	1.0	ELECTRONICS & TELECOMMUNICATIONS	ELECTRONICS & TELECOM	ANKL
24122.0	DHIRENDRA KUMAR DHIRAJ	Chief General Manager (Electronics & Telecom)	1205310.0	E7	1.0	ELECTRONICS & TELECOMMUNICATIONS	ELECTRONICS & TELECOM	DELI
24125.0	ARUN FOTEDAR	General Manager (Electronics & Telecom)	1305310.0	E6	1.0	ELECTRONICS & TELECOMMUNICATIONS	ELECTRONICS & TELECOM	OVLD
24201.0	RAJENDER SINGH RAWAT	Senior HR Executive	1707410.0	E2	1.0	HUMAN RESOURCE	HUMAN RESOURCE	DEHR
24215.0	JAGMOHAN SINGH RAWAT	Deputy General Manager (HR)	1407410.0	E5	1.0	HUMAN RESOURCE	HUMAN RESOURCE	DELI
24225.0	RENU DAYAL WAHI	Chief Manager (Finance & Accounts)	1507210.0	E4	1.0	FINANCE & ACCOUNTS	ACCOUNTS	OVLD

Table 2

CPFNO	NAME	GENDER KEY	CATEGORY	DESIGNATION TEXT	LEVEL	DISCIPLINE TEXT	SUB DISP TEXT	PERSONAL AR
24101.0	SUNITA KHANNA	F	GN	Deputy General Manager (HR)	E5	HUMAN RESOURCE	HUMAN RESOURCE	DELI
24121.0	RAKESH GUPTA	M	GN	Chief General Manager (Electronics & Telecom)	E7	ELECTRONICS & TELECOMMUNICATIONS	ELECTRONICS & TELECOM	ANKL
24122.0	DHIRENDRA KUMAR DHIRAJ	M	GN	Chief General Manager (Electronics & Telecom)	E7	ELECTRONICS & TELECOMMUNICATIONS	ELECTRONICS & TELECOM	DELI
24125.0	ARUN FOTEDAR	M	GN	General Manager (Electronics & Telecom)	E6	ELECTRONICS & TELECOMMUNICATIONS	ELECTRONICS & TELECOM	OVLD
24201.0	RAJENDER SINGH RAWAT	M	GN	Senior HR Executive	E2	HUMAN RESOURCE	HUMAN RESOURCE	DEHR
24215.0	JAGMOHAN SINGH RAWAT	M	GN	Deputy General Manager (HR)	E5	HUMAN RESOURCE	HUMAN RESOURCE	DELI
24225.0	RENU DAYAL WAHI	F	GN	Chief Manager (Finance & Accounts)	E4	FINANCE & ACCOUNTS	ACCOUNTS	OVLD
24232.0	ROOP SINGH	M	GN	Senior Superintendent (Duplicating Mach.)	S3	PERSONNEL & ADMINISTRATION	DUPLICATING MACHINE	DELI

In order to display the result, we will use the **odbc_result_all** function which will display the data in a tabular form on the screen. We will edit the background details and the border width of the table using inline CSS.

Now for displaying Employee details by using their CPFNO:

We will create a HTML form which will ask to enter the **employee CPFNO**.

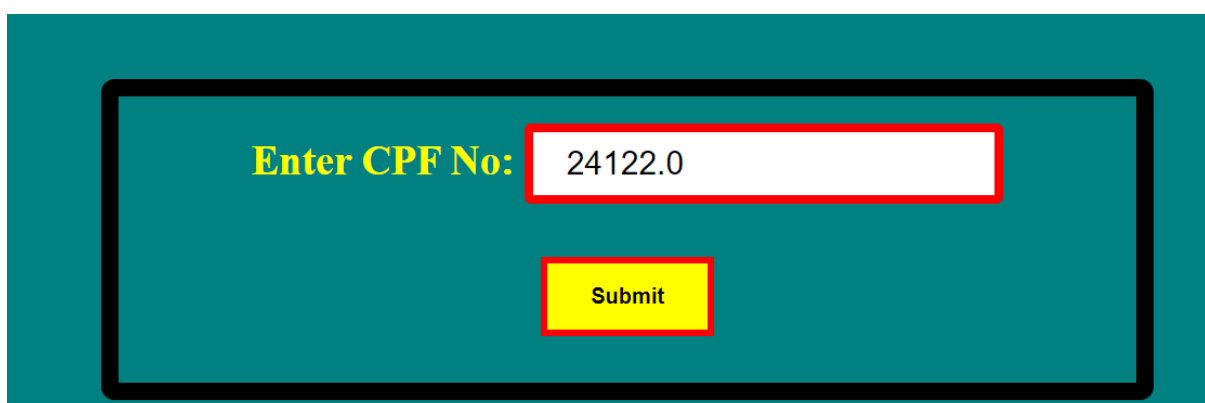We will set the form field to required so the the user can't leave the form empty.

On entering the employee CPFNO it will fetch the details of the employee corresponding to that CPFNO and will display it on next window in tabular manner.

We can also display other details of the employee like date of joining, date of retirement and time duration of other postings too.

In order to make the webpage look interactive I used some CSS properties like border formatting, button formatting, changing the background colour, table formatting and adding scroll bars below both the tables.

Now on entering the CPFNO of the employee in the text field click in the **submit button**.

On clicking on the submit button u will be redirected to the next page which will be containing all the details of the respective employee in a tabular form.

The same CSS formatting have been applied to this page also.

Now the page containing the employee details:

Employee you selected

CPFNO	NAME	DESIGNATION	ONGC_CODE	LEVEL	CLASS	DISCIPLINE TEXT	SUB DISP TEXT	PERSONAL AREA	LOCATION	REGION	ORG#UNIT TEXT	PARENT	POSITION TEXT
24122.0	DHIRENDRA KUMAR DHIRAJ	Chief General Manager (Electronics & Telecom)	1205310.0	E7	1.0	ELECTRONICS & TELECOMMUNICATIONS	ELECTRONICS & TELECOM	DELI	DELHI	NULL	C/INFO COMM	0.0	HEAD COMMUNICATIO (LII)

CPFNO	NAME	GENDER KEY	CATEGORY	DESIGNATION TEXT	E_LEVEL	DISCIPLINE TEXT	SUB DISP TEXT	PERSONAL AREA	DATE_OF_JOIN_ONGC	DATE OF JOIN PER AREA	DATE OF JOIN POST	EFF DATE PROM	DA E
24122.0	DHIRENDRA KUMAR DHIRAJ	M	GN	Chief General Manager (Electronics & Telecom)	E7	ELECTRONICS & TELECOMMUNICATIONS	ELECTRONICS & TELECOM	DELI	23.04.1985		28.06.2017	04.05.2017	01.01.2017	25

This shows the complete information of the respective employee picked up from both the tables.

We can also display some additional information like:

Employee Details are:

Personal Information	Promotion Post	Year Promoted	Postings	Posted Year	E_Level
Name: DHIRENDRA KUMAR DHIRAJ CPFNO: 24122.0 M/Q1/GN Designation: Chief General Manager (Electronics & Telecom) Mobile no: 9969225728.0 D.O.R: 31.01.2021	AEE (Telecom) EE (Telecom) Dy.SE (Telecom) SE (E&T) CE (E & T) DGM (E & T)	23.04.1985 01.01.1990 01.01.1995 01.01.1998 01.01.2005 01.01.2011	DELHI-LEGACY MUMBAI AGARTALA MUMBAI DELHI ANKLESHWAR	23.04.1985 30.03.1998 26.05.2006 01.06.2009 28.06.2017 07.03.2019	E7

SNAPSHOTS OF CODE


```php
<?php
$conn=odbc_connect("mydsn2","","");
$result=odbc_exec($conn,"select*from[Sheet1$]");
echo '<h2 style="color:yellow;text-align:center;font-size:2rem;">Table 1</h2>';
odbc_result_all($result,"cellpadding='5' text-align='center' border='2px solid'
                bgcolor='#bbf1c8' style='color:black;font-weight:bold;font-size:1rem;
                display:block;overflow-x:auto;white-space:nowrap;border:5px solid black;'");
$result=odbc_exec($conn,"select*from[Sheet2$]");
echo '<h2 style="color:yellow;text-align:center;font-size:2rem;">Table 2</h2>';
odbc_result_all($result," cellpadding='5' text-align='center' border='2px solid'
                bgcolor='#bbf1c8' style='color:black;font-weight:bold;font-size:1rem;
                display:block;overflow-x:auto;white-space:nowrap;border:5px solid black;'");
//$result = odbc_exec ($conn, "select *  s.id, s.name, s2.id ,s2.age from
// [sheet1$]s , [sheet2$]s2 where s.CPF NO=s2.CPF NO);

//odbc_exec($conn, "INSERT into [Sheet1$] ([Name], [Age]) values ( 'Kshitiz', '22')");
?>
```



```html
<html>
    <head>
        <link rel='stylesheet' type='text/css' href='style.css' />
    </head>
    <body>
        <div class="second">
            <img src="ongc-logo.png" width="150" height="150" align="left">
            <h1>Employee List</h1>
        </div>
        <div class="first">
            <?php include 'excel1.php';?>
            <br><br>
            <br><br>
        </div>
        <div class="third">
            <form name="myForm" action="getrecord.php"  method="post">
                Enter CPF No: <input id="text-field" type="number_format" placeholder="CPF No"
                name="fname" required><br><br>
                <input class="submit-button" type="submit" value="Submit">
            </form>
        </div>
    </body>
</html>
```

File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?

```css
1  h1{
2      background-color:teal;
3      color:yellow;
4      font-size:2.8rem;
5      font-weight:900;
6      text-align:center;
7  }
8  .second{
9      text-align:center;
10     padding:1rem;
11     position:relative;
12 }
13 body{
14     background-color:teal;
15 }
16 .third{
17     color:yellow;
18     font-weight:900;
19     font-size:1.9rem;
20     border:0.8rem solid black;
21     border-radius:10px;
22     padding-top: 20px;
23     width:50%;
24     margin-left:27%;
25     text-align:center;
```

Cascade Style Sheets File | length : 698 lines : 42 | Ln : 7 Col : 2 Sel : 0 | 0 | Windows (CR LF) | UTF-8 | INS

File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?

```css
18     font-weight:900;
19     font-size:1.9rem;
20     border:0.8rem solid black;
21     border-radius:10px;
22     padding-top: 20px;
23     width:50%;
24     margin-left:27%;
25     text-align:center;
26 }
27 #text-field{
28     border:6px solid red;
29     border-radius:5px;
30     padding: 10px 25px;
31     font-size:1.5rem;
32 }
33 .submit-button{
34     padding: 15px 32px;
35     text-align:center;
36     font-size:1rem;
37     font-weight:bold;
38     margin: 4px 2px;
39     background-color:yellow;
40     border:5px solid red;
41     cursor:pointer;
42 }
```

Cascade Style Sheets File | length : 698 lines : 42 | Ln : 7 Col : 2 Sel : 0 | 0 | Windows (CR LF) | UTF-8 | INS

```php
<html><head><link rel='stylesheet' type='text/css' href='style.css' /></head><body></body></html>
<?php
$conn=odbc_connect("mydsn2","","");
echo '<h1 style="color:yellow;">Employee you selected</h1><br>';
$result = odbc_exec($conn,"select s.* from [sheet1$]s where s.CPFNO=".$_REQUEST["fname"]);
$result1 = odbc_exec($conn,"select s2.* from [sheet2$]s2 where s2.CPFNO=".$_REQUEST["fname"]);
$result2 = odbc_exec($conn,"select s1.*,s3.* from [sheet1$]s1,[sheet2$]s3 where s1.CPFNO=".$_REQUEST
odbc_result_all($result ,"cellpadding='5' bgcolor='#bbf1c8' border='2px solid'
                style='color:black;font-weight:bold;font-size:1rem;
                display:block;overflow-x:auto;border:4px inset black;'");
echo '<br><br>';
odbc_result_all($result1 ,"cellpadding='5' bgcolor='#bbf1c8' border='2px solid'
                 style='color:black;font-weight:bold;font-size:1rem;
                display:block;overflow-x:auto;border:4px inset black;'");
echo '<br><br>';
echo '<h2 style="color:yellow;font-size:2rem;">Employee Details are:</h2>';

print("<table border=5 solid bgcolor='#bbf1c8' width='100%' cellspacing=8 cellpadding=8 style='font-
font-weight:bold;'><th>Personal Information</th><th>Promotion Post</th><th>Year Promoted</th>
<th>Postings</th><th>Posted Year</th><th>E_Level</th><tr>");
while($rows=odbc_fetch_object($result2)){
    print("<td>Name: ".$rows->NAME."<br>CPFNO: ".$rows->CPFNO."<br>".$rows->GENDER_KEY.
        "/".$rows->QUAL_LEVEL."/".$rows->CATEGORY."<br>Designation: ".$rows->DESIGNATION.
        "<br>Mobile no: ".$rows->MOBILE_NO."<br>D.O.R: ".$rows->DATE_OF_RETIREMENT."</td>");
    print("<td>".$rows->DESIGNATION1."<br>".$rows->DESIGNATION2."<br>".$rows->DESIGNATION3.
    "<br>".$rows->DESIGNATION4."<br>".$rows->DESIGNATION5."<br>".$rows->DESIGNATION6."</td>");
```

```php
    print ("<td>".$rows->DWEF1."<br>".$rows->DWEF2."<br>".$rows->DWEF3."<br>".$rows->DWEF4."<br>"
    .$rows->DWEF5."<br>".$rows->DWEF6."</td>");
    print ("<td>".$rows->POSTING1."<br>".$rows->POSTING2."<br>".$rows->POSTING3."<br>"
    .$rows->POSTING4."<br>".$rows->POSTING5."<br>".$rows->POSTING6."</td>");
    print ("<td>".$rows->WEF1."<br>".$rows->WEF2."<br>".$rows->WEF3."<br>".$rows->WEF4."<br>"
    .$rows->WEF5."<br>".$rows->WEF6."</td>");
    print ("<td>".$rows->E_LEVEL."</td><tr>");
}
print("</table>");
?>
```

Bibliography:

For this project I took help from the following sources-

- ❖ **www.w3schools.com**
- ❖ **www.php.net**
- ❖ **www.docstore.mik.ua**
- ❖ **developer.mozilla.org**
- ❖ **Wikipedia**
- ❖ **YouTube**
- ❖ **GitHub**

The End