



**SMT. CHANDABEN MOHANBHAI PATEL
INSTITUTE OF COMPUTER APPLICATIONS,
CHANGA**

Lab Assignment

MCA Semester- I

**SUBJECT: ENTERPRISE COMPUTING USING JAVA EE
SUBJECT CODE: CA-863**

**SUBMITTED BY:
[DHAVAL CHHAYLA] (23MCA022)**

**SUBMITTED TO:
Prof. KRISHNA KANT**

-
- Write a JDBC application to create function in Oracle and call the function using CallableStatement to accept the details of Employee as: EmpNo, Ename, and Date of Birth from user and get the get of the employee in DD/MM/YYYY format.
 - Create a stored function titled 'Age_calc'.
 - Accept the date of birth of a person as a parameter.
 - Calculate the age of the person in years, months and days e.g. 3 years, 2 months, 10 days.
 - Return the age in years directly (with the help of Return statement).
 - The months and days are to be returned indirectly in the form of OUT parameters.

➤ **Oracle function:**

```
CREATE OR REPLACE FUNCTION get_employee_dob_and_age(
    p_eno NUMBER,
    p_ename VARCHAR2,
    p_edob DATE
) RETURN VARCHAR2 AS
    v_dob_formatted VARCHAR2(50);
    v_age_years NUMBER;
    v_age_months NUMBER;
    v_age_days NUMBER;
BEGIN

    v_dob_formatted := TO_CHAR(p_edob, 'dd-mm-yyyy');

    SELECT TRUNC(MONTHS_BETWEEN(SYSDATE, p_edob) / 12) INTO
v_age_years FROM DUAL;
    SELECT TRUNC(MOD(MONTHS_BETWEEN(SYSDATE, p_edob), 12))
INTO v_age_months FROM DUAL;
    SELECT TRUNC(SYSDATE - ADD_MONTHS(p_edob, (v_age_years * 12 +
v_age_months))) INTO v_age_days FROM DUAL;

    v_dob_formatted := v_dob_formatted || CHR(10) || 'Age: ' || v_age_years ||
' years ' || v_age_months || ' months ' || v_age_days || ' days';

    RETURN v_dob_formatted;
END;
```

➤ Java Code:

```
import java.sql.*;
import java.io.*;
```

```
//@author Dhaval
```

```
public class StoredFunction {
    public static void main(String[] args) {
        try {
            // Prepare the Connection between database and application
            Class.forName("oracle.jdbc.OracleDriver");
            Connection con =
            DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:XE","system","admin");
```

```
// Prepare the call to the Oracle function
            CallableStatement cstmt = con.prepareCall("{ ? = call
            get_employee_dob_and_age(?, ?, ?) }");
```

```
// Take input from user
            DataInputStream dis = new DataInputStream(System.in);
            System.out.print("Enter Eno: ");
            int Eno = Integer.parseInt(dis.readLine());
```

```
            System.out.print("Enter Ename: ");
            String Ename = dis.readLine();
```

```
            System.out.print("Enter Edob: ");
            String Edob = dis.readLine();
```

```
// Set input parameters
            cstmt.setInt(2, Eno); // Eno
            cstmt.setString(3, Ename); // Ename
            cstmt.setDate(4, Date.valueOf(Edob)); // Edob
```

```
// Register the output parameter
            cstmt.registerOutParameter(1, Types.VARCHAR);
```

```
// Execute the function call
            cstmt.execute();
```

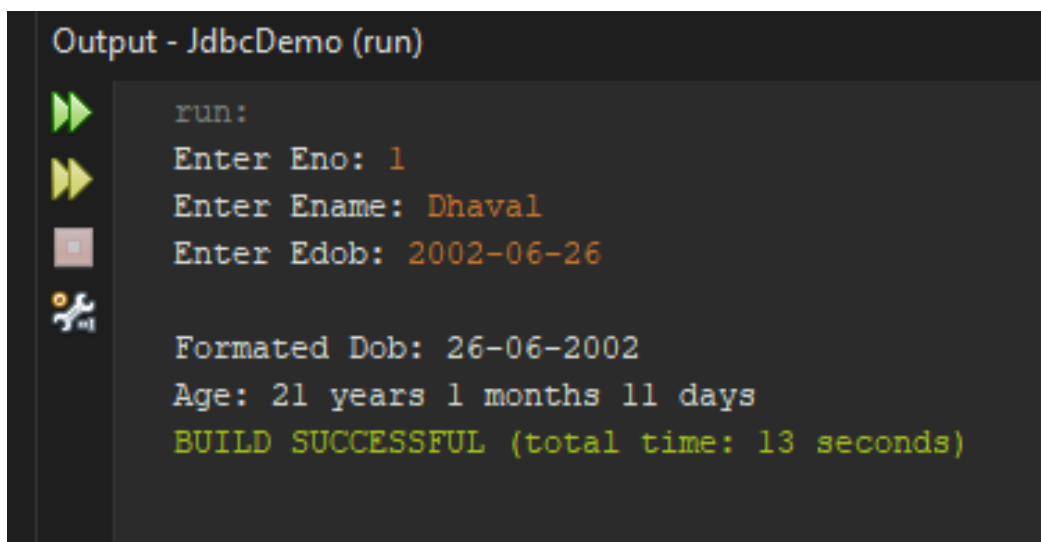
// Retrieve the result from the output parameter

```
String result = pstmt.getString(1);  
System.out.println("\nFormatted Dob: " + result);
```

// Close the resources

```
pstmt.close();  
con.close();  
}  
catch (Exception e) {  
System.err.println(e);  
}  
}  
}
```

➤ Output:



```
Output - JdbcDemo (run)  
  
run:  
Enter Eno: 1  
Enter Ename: Dhaval  
Enter Edob: 2002-06-26  
  
Formatted Dob: 26-06-2002  
Age: 21 years 1 months 11 days  
BUILD SUCCESSFUL (total time: 13 seconds)
```