DBFit-Database Testing Tool

Lab Book

Document Revision History

Date	Revision No.	Author	Summary of Changes
21-Mar-2011	1.0	Anu Mitra	First Version

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Getting Started

Overview

This lab book This lab book is a guided tour for learning DBFit. It comprises solved examples and 'To Do' assignments. Follow the steps provided in the solved examples and work out the 'To Do' assignments given.

Setup Checklist for DBFit

Here is what is expected on your machine in order for the lab to work.

Minimum System Requirements

- Intel Pentium 90 or higher (P166 recommended)
- Microsoft Windows 95, 98, or NT 4.0, 2k, XP.
- Memory: 128MB of RAM (64MB or more recommended)

Ensure the following:

- Your system has been connected to Oracle database
- DBFit software has been installed
- JRE 1.5 has been installed

Instructions

- Create a directory by your name in drive <drive>. In this directory, create a subdirectory dbfit_assgn.
- Store all the assignments in one document. Ensure that each entry is labeled properly with the question number as mentioned in the labbook

Lab 1. Installing and configuring DBFit

Goals	• Installation and Configuration of DBFit
Time	20 min

1.1: Steps for installing and configuring DBFit

Step 1: Configure JRE and/or Microsoft .Net Framework

- For using Java version, JRE 5 or later
- For using .Net version, both JRE & Microsoft's .Net Framework 2 or later

Step 2: Unzip the dbfit-complete.zip package in a suitable location in your PC.

Step 3: Run startfitnesse.bat. This will start the server which enables you to run the test cases.

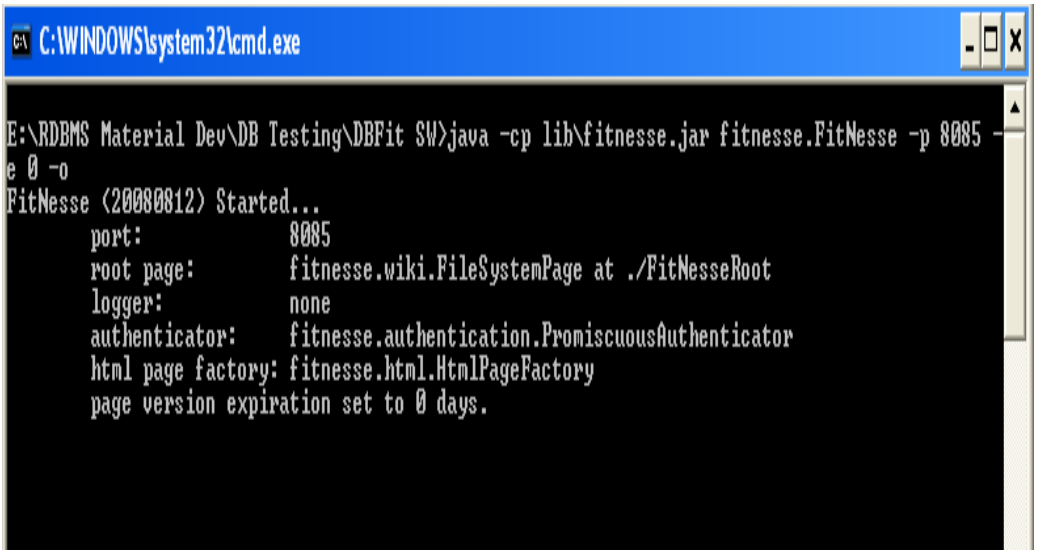

Figure 1: The Fitness server startup screen

Step 4: Open the browser window and in the address bar type the URL as http://localhost:8085.

Figure 2: Home Page of DBFit

Step 5: To create a new test page, in the address bar type in http://localhost:8085/TestPage.

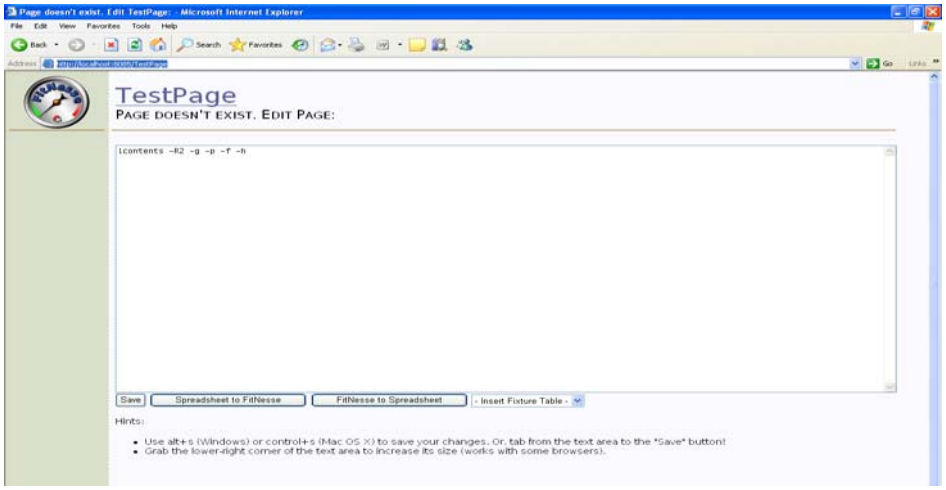

Figure 3: A new test page

Step 6: You can now start writing the test case as follows:

```
!path lib/*.jar
!|dbfit.OracleTest|
!|Connect|192.168.224.26:1521|testuser|testuser|trgdb|
!|Query| select ename from emp where empno=7788|
|ename|
|SCOTT|
```


Example 1: The first test script

Step 7: Now, the test script is ready to execute. Save the page contents**.** Set the properties for the test script and mark it as **Test** if it is unmarked. Click the **Properties** button on the left. Check the **Test** checkbox and save as shown in the figure below.

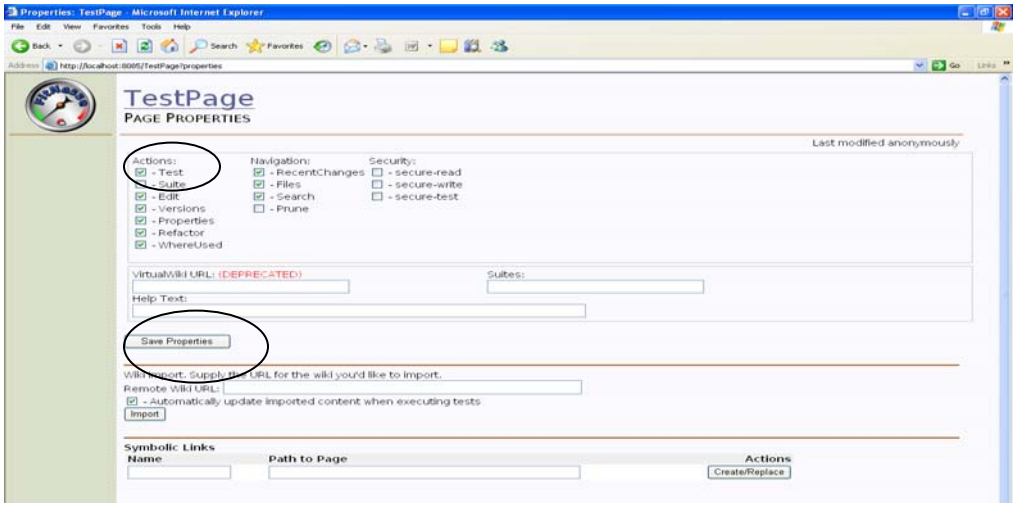

Figure 4: The Properties page

Step 8: Click the **Test** button on the left panel.

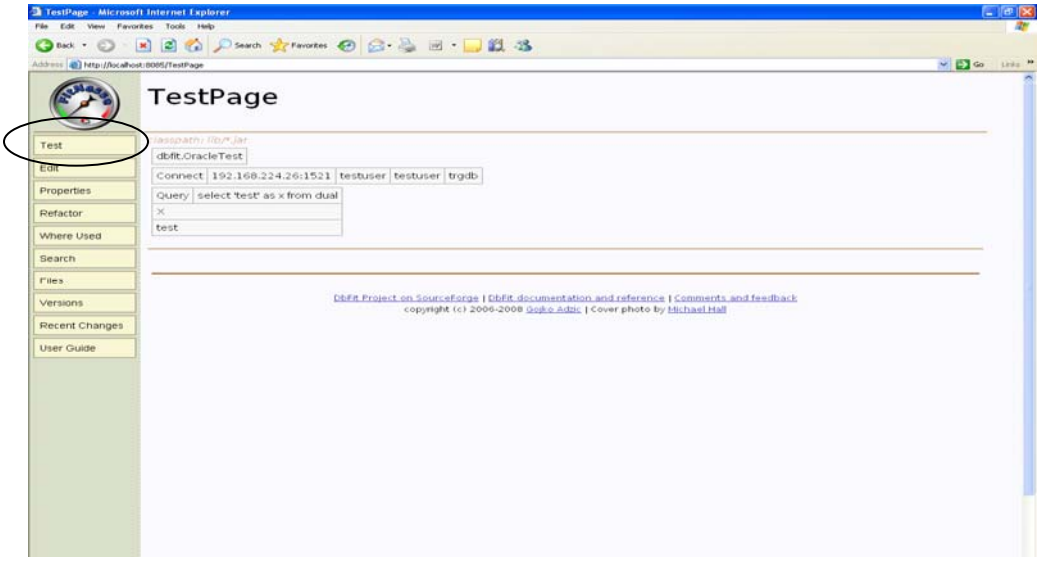

Figure 5: The saved test script. Click "Test"

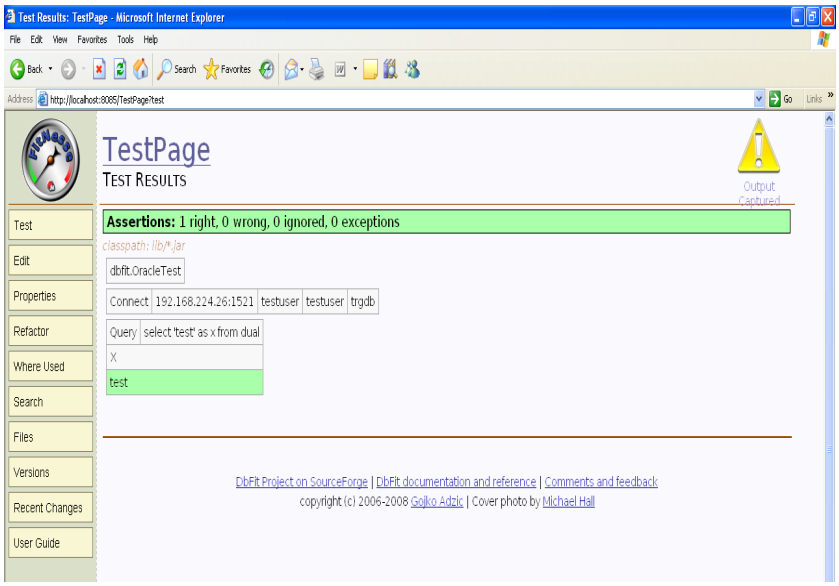

Figure 6: Successful test run

Lab 2. Testing Queries Using DBFit

Goals	Using DBFit to test queries against database
Time	60 min

2:1 Create test scripts for the following queries:

1. List Name, Sal, Comm, and Deptno of the employees who are working in department numbers 20, 30, and 40.
2. List the Name, Comm, and Job of the employees whose designations are either CLERK or SALESMAN.
3. List the Name and Designations of the employees, who have joined before a particular date. The date value is accepted as a parameter from the user. Simulate this in your test script.
4. List the Name and Salary of the employees who are earning between 1000 and 3000. Sort them depending on their sal.
5. List the Name and Salary of the employees, who are earning more than 40K per annum.
6. Using a subquery, list the employee name and job of employees, who are not from a specific location. The location should be passed as parameter by the test script.
7. List the employees, managers, and their jobs for all employees and managers working in the same department.
8. Create a table Bank_Account with a structure as shown below: (To Do)

   Accno number

   AccountType varchar2(20)

   Balance number
9. Create Customer table with the following columns.

   Customerid Number(5)

   CustomerName Number(10)

   Addressl Varchar2(30)

   Address2 Varchar2(30)
10. Write test to Insert at least five roecords in both the tables mentioned above.
11. Drop table Bank_Account

Lab 3. Testing Stored Subprograms Using DBFit

Goals	Using DBFit to test stored procedures and functions
Time	60 min

3.1: Create test scripts for the following stored procedures and functions

1. Procedure to display all the details of Dept table
2. Procedure to find all the details of Employees with Max salary relative to their job
3. Procedure to determine the yearly income of all employees
4. Function to return Ename, Sal, and Deptno. The function should accept Employee Number.
5. Function that will calculate the total salary of all employees in the Emp table. If the sum of salary is less than 3000, then add 50000 to all employees' salary, and then return the new sum of salary.

   Note: For the above question, use the existing code that you have already written during Oracle training session. Please refer to Lab 6.)
6. Write a function which calculates area of a circle. The calculated value should be returned by the function. The test script should check for at least 3 values.
7. Write a procedure to accept two numbers and the operator. Perform the operation on the numbers according to the operator & return the result. The test script should check for all operators.

Appendix E: Table of Figures

