**Update Source Code/Execute Unit Test**

**Module Description**

In this module, you will implement the Change Request in the application class methods and test. The test documents and the stubbed code will also need to be updated to support testing the code change.

**Scenario**

The Change Advisory Board has met and the decision is delivered. The client was satisfied with the solution, but demands that the fix be completed much sooner to meet their next release rollout date in two weeks—this date cannot move. This means that the enhancement must be implemented and fully tested (unit, assembly and product tests) within the next two to three days.

As time is short, you must review and possibly update:

* The existing JUnit scripts
* The Unit TCERs
* Your stubbed code
* The source code.

Following this, you and the rest of your team will unit test the defect fixes and the enhancements.

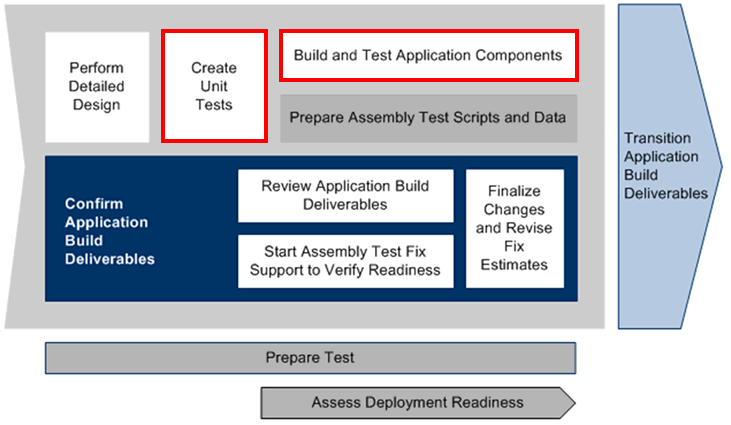
The development team working on the UI has made the changes to the code to support the enhancements. Much of the project work products (including the database model) have been updated to support the approved Change requests.

You and your teammates will make all the required defect fixes (if not done already) and enhancements on the source code. The JUnit test scripts (some of which may need updating due to the Change Request) will be executed by you and your teammates in your development environment (using stubs where needed) until they run successfully.

Once all the code is updated and unit tested successfully, you will integrate the code (i.e., remove the references to your stub classes and check that the application compiles successfully).

**ADM Activity Context Diagram**

* Application > 4100 Build Application > 4183 Create Unit Tests.
* Application > 4100 Build Application > 4188 Build and Test Application Components.



**Roles**

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| --- | --- | --- | --- |
| **Role** | **ADM Task** | **ADM Responsibility** | **Description** |
| Team Lead | 4183 - Create Unit Tests  4188 - Build and Test Application Components | Primary Performer | Delegates team members for code integration. |
| Team (All) | 4183 - Create Unit Tests  4188 - Build and Test Application Components | Primary Performer | Makes modifications to TCERs, JUnit scripts and source code if actual results do not match expected results.  Executes source code using automated test scripts.  Integrates all completed code. |

**Participant Instructions**

1. Review the email from the client summarizing the results.  
  
2. Review the Change Request of the CCB meeting (include reading the approved Change Request).

3. Open the latest copy of the Query Log in case questions need to be documented and tracked.

4. Review the latest version of the project's work products from the Analysis stage. Document any questions that you have in the Query Log.  
  
**Documents from the Analysis Stage:**

[AP201 Requirements and Traceability (Release 2)](https://accenture.desire2learn.com/content/enforced/9406-Pending/NCCC_Project_Work_Products/3a_App_Analysis/Release_2/RTM_FERS_R2_REF.xlsx?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)   
[Use Case UC1 (Register Visitor)](https://accenture.desire2learn.com/content/enforced/9406-Pending/NCCC_Project_Work_Products/3a_App_Analysis/Release_2/UseCase_FERS_UC1_RegisterVisitor_R2_REF.docx?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)  
[Use Case UC2 (Login Visitor)](https://accenture.desire2learn.com/content/enforced/9406-Pending/NCCC_Project_Work_Products/3a_App_Analysis/Release_2/UseCase_FERS_UC2_LoginVisitor_R2_REF.docx?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)  
[Use Case UC3 (Update Visitor)](https://accenture.desire2learn.com/content/enforced/9406-Pending/NCCC_Project_Work_Products/3a_App_Analysis/Release_2/UseCase_FERS_UC3_UpdateVisitor_R2_REF.docx?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)   
[Use Case UC4 (Register for Event)](https://accenture.desire2learn.com/content/enforced/9406-Pending/NCCC_Project_Work_Products/3a_App_Analysis/Release_2/UseCase_FERS_UC4_RegisterForEvent_R2_REF.docx?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)  
[Use Case UC5 (Unregister from Event)](https://accenture.desire2learn.com/content/enforced/9406-Pending/NCCC_Project_Work_Products/3a_App_Analysis/Release_2/UseCase_FERS_UC5_UnregisterFromEvent_R2_REF.docx?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)   
[Use Case UC6 (View Events)](https://accenture.desire2learn.com/content/enforced/9406-Pending/NCCC_Project_Work_Products/3a_App_Analysis/Release_2/UseCase_FERS_UC6_ViewEvents_R2_REF.docx?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)   
[Use Case UC7 (Search Events List)](https://accenture.desire2learn.com/content/enforced/9406-Pending/NCCC_Project_Work_Products/3a_App_Analysis/Release_2/UseCase_FERS_UC7_SearchEventsList_R2_REF.docx?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)   
[Use Case UC8 (Sort Events List)](https://accenture.desire2learn.com/content/enforced/9406-Pending/NCCC_Project_Work_Products/3a_App_Analysis/Release_2/UseCase_FERS_UC8_SortEventsList_R2_REF.docx?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)   
[Use Case Diagram](https://accenture.desire2learn.com/content/enforced/9406-Pending/NCCC_Project_Work_Products/3a_App_Analysis/Release_2/UseCaseDiag_FERS_R2_REF.docx?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)   
[AP213 Business Rules (Release 1)](https://accenture.desire2learn.com/content/enforced/9406-Pending/NCCC_Project_Work_Products/3a_App_Analysis/Release_1/BusRules_FERS_R1_REF.docx?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8) [AP214 Data Dictionary (Release 1)](https://accenture.desire2learn.com/content/enforced/9406-Pending/NCCC_Project_Work_Products/3a_App_Analysis/Release_1/DataDict_FERS_R1_REF.docx?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)  
[AP235 Personas (Release 1)](https://accenture.desire2learn.com/content/enforced/9406-Pending/NCCC_Project_Work_Products/3a_App_Analysis/Release_1/Personas_FERS_R1_REF.docx?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)  
[Site Map (Release 2)](https://accenture.desire2learn.com/content/enforced/9406-Pending/NCCC_Project_Work_Products/3a_App_Analysis/Release_2/SiteMap_FERS_R2_REF.docx?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)

**Other relevant documents:**

[TE583 Product Test Scenarios (Release 2)](https://accenture.desire2learn.com/content/enforced/9406-Pending/W4_Participant_Materials/Module_45/Prod_TestScen_FERS_R2_REF.xlsx?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)  
[TE585 Product Test Cycle Control Sheet (Release 2)](https://accenture.desire2learn.com/content/enforced/9406-Pending/W4_Participant_Materials/Module_45/Prod_TestCycle_FERS_R2_REF.xlsx?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)

5. Review the Release 2 version of the project's work products from the Design stage. Document any questions that you have in the Query Log.  
  
**Documents from the Design Stage:**

[AP331 Domain Class Model](https://accenture.desire2learn.com/content/enforced/9406-Pending/NCCC_Project_Work_Products/3b_App_Design/Release_2/DomClsMdl_FERS_R2_REF.docx?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)   
[AP333 Component/Class Design](https://accenture.desire2learn.com/content/enforced/9406-Pending/NCCC_Project_Work_Products/3b_App_Design/Release_2/CompClsDes_FERS_R2_WPC_REF.docx?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)  
[Diagram UC 1 (Register Visitor)](https://accenture.desire2learn.com/content/enforced/9406-Pending/NCCC_Project_Work_Products/3b_App_Design/Release_2/IntDiag_FERS_UC1_RegisterVisitor_R2_REF.vsd?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)  
[Diagram UC 2 (Log in Visitor)](https://accenture.desire2learn.com/content/enforced/9406-Pending/NCCC_Project_Work_Products/3b_App_Design/Release_2/IntDiag_FERS_UC2_LoginVisitor_R2_REF.vsd?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)  
[Diagram UC 3 (Update Visitor)](https://accenture.desire2learn.com/content/enforced/9406-Pending/NCCC_Project_Work_Products/3b_App_Design/Release_2/IntDiag_FERS_UC3_UpdateVisitor_R2_REF.vsd?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)  
[Diagram UC 4 (Register for Event)](https://accenture.desire2learn.com/content/enforced/9406-Pending/NCCC_Project_Work_Products/3b_App_Design/Release_2/IntDiag_FERS_UC4_RegisterforEvent_R2_REF.vsd?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)  
[Diagram UC 5 (Unregister from Event)](https://accenture.desire2learn.com/content/enforced/9406-Pending/NCCC_Project_Work_Products/3b_App_Design/Release_2/IntDiag_FERS_UC5_UnregisterFromEvent_R2_REF.vsd?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)  
[Diagram UC 6 (View Events)](https://accenture.desire2learn.com/content/enforced/9406-Pending/NCCC_Project_Work_Products/3b_App_Design/Release_2/IntDiag_FERS_UC6_viewEvents_R2_REF.vsd?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)  
[Diagram UC 7 (Search Events)](https://accenture.desire2learn.com/content/enforced/9406-Pending/NCCC_Project_Work_Products/3b_App_Design/Release_2/IntDiag_FERS_UC7_SearchEvents_R2_REF.vsd?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)  
[Diagram UC 8 (Sort Events)](https://accenture.desire2learn.com/content/enforced/9406-Pending/NCCC_Project_Work_Products/3b_App_Design/Release_2/IntDiag_FERS_UC8_SortEvents_R2_REF.vsd?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)  
[WP344 Wireframe](https://accenture.desire2learn.com/content/enforced/9406-Pending/NCCC_Project_Work_Products/3b_App_Design/Release_2/Wireframe_FERS_R2_REF.docx?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)

**Other relevant documents:**

[TE583 Assembly Test Scenarios](https://accenture.desire2learn.com/content/enforced/9406-Pending/W4_Participant_Materials/Module_45/Assm_TestScen_FERS_R2_REF.xlsx?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)  
[TE585 Assembly Test Cycle Control Sheet](https://accenture.desire2learn.com/content/enforced/9406-Pending/W4_Participant_Materials/Module_45/Assm_TestCycle_FERS_R2_REF.xlsx?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8)

6. Review the Release 2 version of the [Physical Data Model](https://accenture.desire2learn.com/content/enforced/9406-Pending/NCCC_Project_Work_Products/3c_App_Build/Release_2/PhysDataDes_FERS_R2_REF.docx?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8).

7. Copy the SQL Script from the Physical Data Model document to build the physical database model and populate some sample data.

8. Run the script in the mySQL database system you created previously. Note: A new database schema is being added (festivaldatabase2) from which Release 2 of the code will process data. Note the changes to the data model with the introduction of additional tables (eventcoordinator and eventsession).

9. Get the URL, username and password from the management to get access to the Release 2 Codebase (FestivalPortalR2\_Participant).  
  
10. Use the credentials to log in, access and download the Release 2 Codebase.

11. Review the Release 2 Codebase and make note of the changes in the user interface in the Event Catalog page (eventCatalog.jsp) and the Festival Portal page (visitormain.jsp).  
  
12. The java class and method that need to be implemented are:

a) EventDAO.java (Complex)

i) showAllEvents()

ii) showAllEvents(name)

iii) showAllEventsAsc()

iv) showAllEventsDesc()

b) VisitorDAO.java (Medium)

i) registeredEvents()

ii) registerVisitortoEvent()

iii) unregisterEvent()

13. The configuration file that needs to be updated is:

a) applicationContext.xml (EASY) -

i) The value for the SQL Query property searchEvent

ii) The value for the SQL Query property searchEventAsc

iii) The value for the SQL Query property searchEventDesc

iv) The value for the SQL Query property searchByEventName

14. Discuss as a team what the next steps will be to implement the agreed-upon functionality based on the updated documents and also fix the defects.

15. Update the Release 2 codebase and the following work products to accommodate the Change Request enhancements and defect fixes:

a) Unit Test Conditions and Expected Results

b) Unit Test Scenarios

c) **Team Lead Only**: Unit Test Cycle Control Sheet

d) Source Code (Java classes and .jsp files)

e) JUnit Test scripts

16. If necessary (when new test conditions are discovered or existing test conditions are invalid) update any and all test documentation.

17. In Eclipse:

a) Add in your JUnit scripts from Release 1 into the project.

b) Add in stubbed code.

c) Update the source code to include the defect fixes and the new functionality for the Change Request.

18. Execute the JUnit scripts to run and test the code using the stub code.

19. If errors are given by JUnit, update their code to correct the problem.

20. The Unit Test is complete once all the test cases are executed and the code provides the expected results in each case.

21. Peer Review each other's JUnit and source code using the Peer Review checklist to ensure it meets project standards.

**Hints and Tips**

If needed, open the [Master Practice Primer](https://accenture.desire2learn.com/content/enforced/9406-Pending/NCCC_Project_Work_Products/1_PM/ADF_Java_2_0_Master_Practice_Primer_REF.docx?_&d2lSessionVal=YnoL4daZGC8ne2RyGf0cWMrk8) document and review the Review Process and the Fix and Follow-Up process for details on completing the peer review of the Unit Test documentation and code.