

| Local Application

Transact Extensibility for Java (English)

2020 Q1



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| Lesson Overview



| Local Application in Java Framework

- Creating Local application is possible using two application
 - EB.TABLE.DEFINITION
 - EB.TABLE.PROCEDURES
- EB.TABLE.DEFINITION is responsible to create the field definitions
- EB.TABLE.PROCEDURES is responsible to attach the business logic created using java classes

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In Java L3 there is no Template concept. Developers are suppose to use the ET and ETD applications to create local application.

EB.TABLE.DEFINITION is responsible to create the field definitions

EB.TABLE.PROCEDURES is responsible to attach the business logic created using java classes

| Practice 10.1 – Creating Local Application

- Create a local application called WALKIN.CUSTOMER with below fields

- NAME
- EMAIL
- PHONE

Field Name	Data Type	Max Char
NAME	A	35
EMAIL	A	35
PHONE	A	10

TABLE.NAME	WALKIN.CUSTOMER
PRODUCT	ST
FILE.TYPE	H
CLASSIFICATION	CUS

Create the application with the above mentioned properties

Solution 10.1

- Create the table using EB.TABLE.DEFINITION
- ETD creates the required artefacts – PGM.FILE, FILE.CONTROL, STANDARD.SELECTION, DATA FILES

EB.TABLE.DEFINITION		WALKIN.CUSTOMER
Product	ST	System Tables
Field Name.1	NAME	
Description.1	Name of Cust	
Max Char.1	35	
Data Type.1	ALPHANUMERIC	Alpha Numeric Characters
Field Name.2	PHONE	
Description.2	PHONE	
Max Char.2	35	
Data Type.2	ALPHANUMERIC	Alpha Numeric Characters
Field Name.3	EMAIL	
Description.3	EMAIL	
Max Char.3	35	
Data Type.3	ALPHANUMERIC	Alpha Numeric Characters
Prefix	ST.WAL75	
File Type	Cus	
Link To Wfl	No	
Add Special Fields.1	Xx Local Ref	

Create a local application WALKIN.CUSTOMER to store NAME, PHONE, EMAIL of a customer.

This can be done using making and entry in EB.TABLE.DEFINITION application. Fields should be defined with the appropriate data type. Field name should be defined in FIELD.NAME and DESCRIPTION fields.

| Generate API for the Local Application

- Using Design Studio, we can generate the API for the APPLICATION created using EB.TABLE.DEFINITION
- we need a server project – to establish connection with T24
- We need a models project – to import the application from T24

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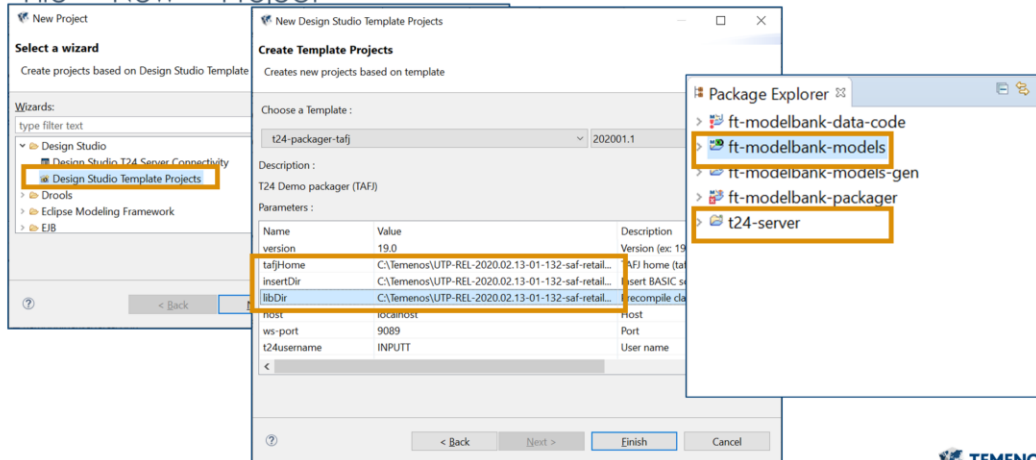
Using Design Studio, we can generate the API for the APPLICATION created using EB.TABLE.DEFINITION

we need a server project – to establish connection with T24

We need a models project – to import the application from T24

T24 Packager Project - Recap

- Create T24-packager-tafj project
- File -> New -> Project



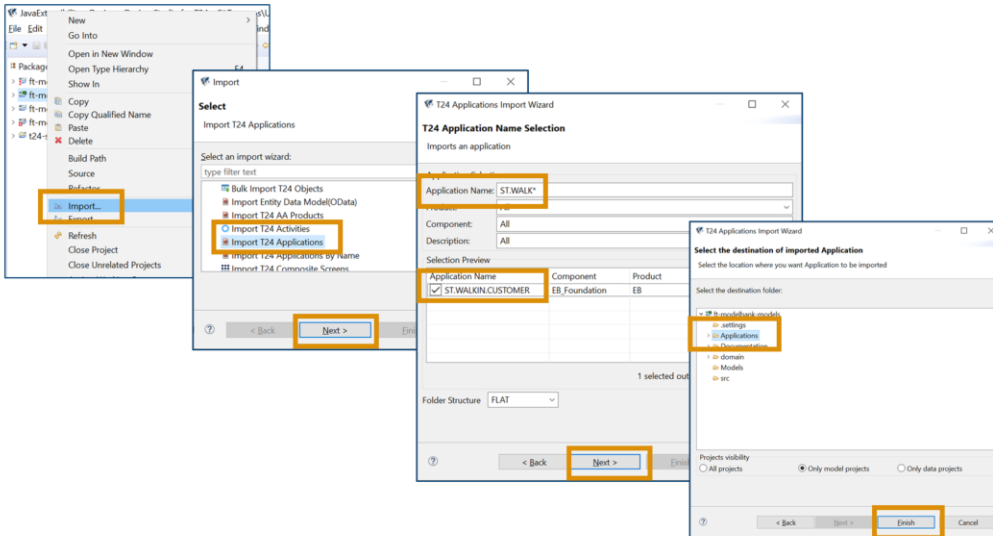
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To generate the API for newly created local application we need a Design studio project. We can either take Datatool or packager project.

Launch Design Studio, specify a workspace. Workspace is any folder on the file system. Click on File→New→project. Type Design in the filter to bring up the Design Studio templates. DS-template project and choose data-tool project from the dropdown. Click on next click on Finish. We are choosing a data-tool project as the template creates a models as well as a server project.

Import the Local Application

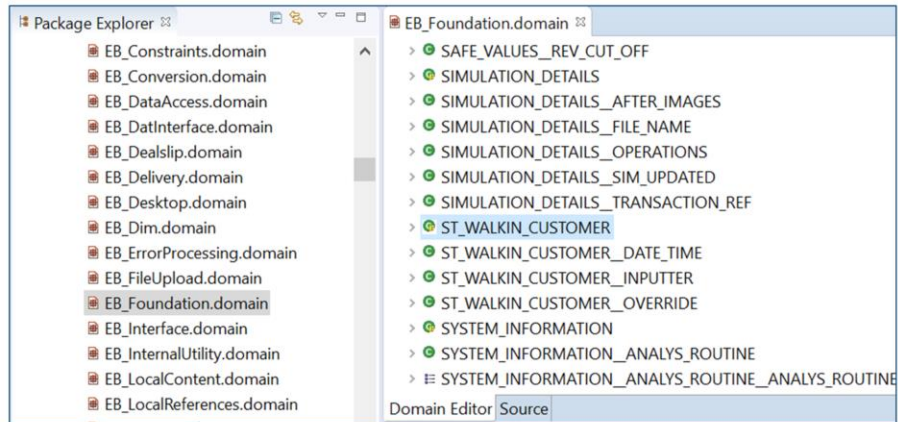


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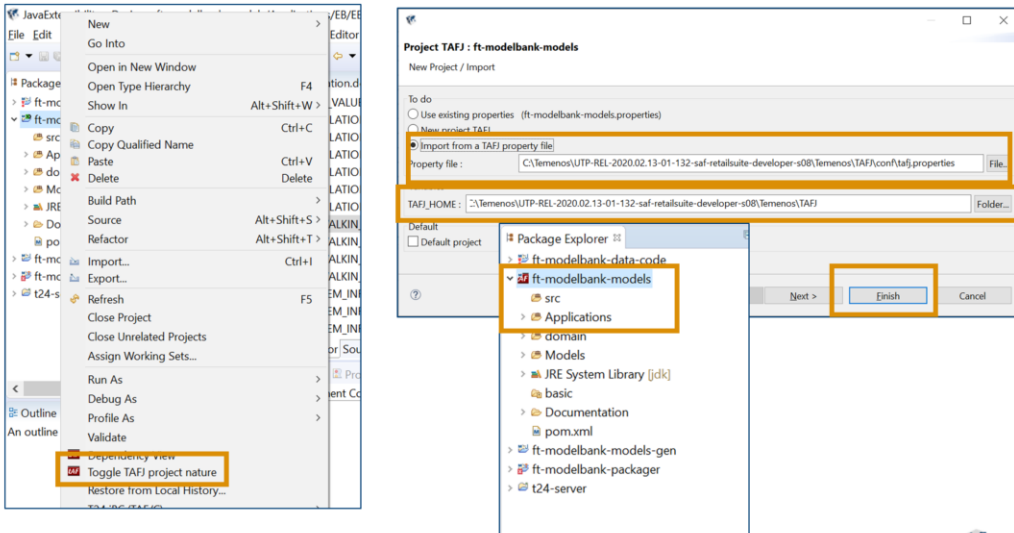
Right click on the BRP-models project → Import → T24 application By Name. after the application is imported successfully, we can see the class in EB_Foundation.domain

Application Imported



Right click on the BRP-models project → Import → T24 application By Name. after the application is imported successfully, we can see the class in EB_Foundation.domain

Toggle TAFJ Project

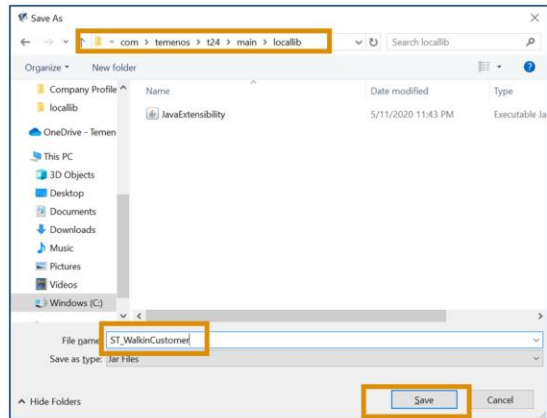
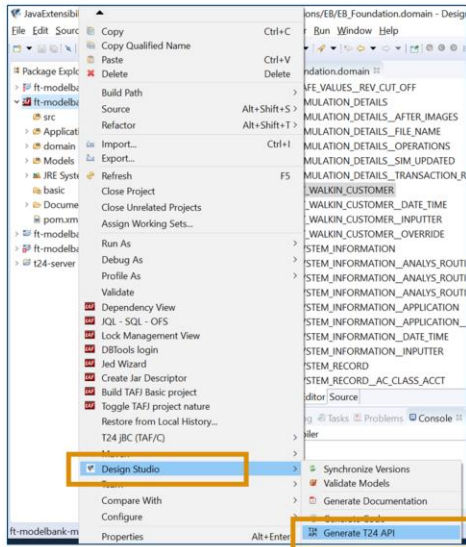


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Generation of API is possible from the TAFJ Project. Hence change the model project as TAFJ Project

Generate API



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Right click on the models' project and select -> Design Studio -> Generate API

This will generate a jar file. The JAR should be stored under the locallib

Update module.xml and Java Build Path (Only for JBoss)

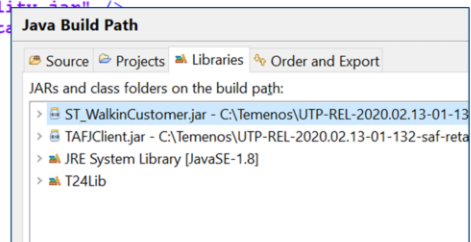
C:\Temenos\UTP-REL-2020.02.13-01-132-saf-retailsuite-developer-s08\Temenos\jboss\modules\com\temenos\t24\main\locallib\ST_WalkinCustomer.jar

Name	Size	Packed	Size	Modified
WalkinCustomerRecord.class	19 207	6 998	2020-05-12 14:31	
WalkinCustomerRecord.java	9 444	1 420	2020-05-12 14:31	
WalkinCustomerTable.class	4 412	1 604	2020-05-12 14:31	
WalkinCustomerTable.java	2 082	517	2020-05-12 14:31	

- Update module.xml and restart jBoss

```
<resources>
  <!-- Insert resources here -->
  <resource-root path="./locallib/ST_WalkinCustomer.jar" />
  <resource-root path="./locallib/JavaExtensibility.jar" />
  <resource-root path="./t24lib/AA_ARAccountsData.jar" />
</resources>
```

- Add the jar to the java Build path
Of the Java project



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The generated jar contains the code that is needed to interact with the local application in T24.

Add the jar in module.xml and restart jBoss
Restart the Jboss

Add the jar to the Java Build Path in the Java project

| Practice 10.2

- Raise an Override Message if the Phone / Email is used by existing Customer (Check against CUSTOMER Application)
- Note: Create a new screen for the local application created and attach as INPUT.ROUTINE

Raise an Override Message if the Phone / Email is used by existing Customer (Check against CUSTOMER Application)

Solution 10.2

```
@Override
public TValidationResponse validateRecord(String application, String currentRecordId, TStructure currentRecord,
    TStructure unauthorisedRecord, TStructure liveRecord, TransactionContext transactionContext) {

    DataAccess dataAccess = new DataAccess(this);
    String customerIds = "";
    List<String> recIds;

    int length;

    WalkinCustomerRecord walkinCustomerRec = new WalkinCustomerRecord(currentRecord); // Cast TStructure to WalkinCustomerRecord

    String phone = walkinCustomerRec.getPhone().toString(); // Read the Phone Number
    if (!phone.isEmpty()) {
        //Select the record IDs of the customer with the mobile no used
        recIds = dataAccess.selectRecords("BNK", "CUSTOMER", "", "WITH PHONE.I EQ '" + walkinCustomerRec.getPhone().toString() + "'");
        length = recIds.size();

        if (length > 0) {
            for (int i = 0; i < length; i++) // Loop through the Ids to add it Override message
                customerIds = customerIds + " " + recIds.get(i);
            walkinCustomerRec.getPhone().setOverride("This Phone number is used at the CUSTOMER No(s): " + customerIds);
        }
    }
    // VALIDATE email and raise override
    String email = walkinCustomerRec.getEmail().toString(); // Read the Email ID
    if (!email.isEmpty()) {
        //Select the record IDs of the customer with the email id used
        recIds = dataAccess.selectRecords("BNK", "CUSTOMER", "", "WITH EMAIL.I EQ '" + email + "'");
        length = recIds.size();
        customerIds = "";

        if (length > 0) {
            for (int i = 0; i < length; i++) // Loop through the Ids to add it Override message
                customerIds = customerIds + " " + recIds.get(i);
            walkinCustomerRec.getEmail().setOverride("This Email Id is used at the CUSTOMER No(s): " + customerIds);
        }
    }
    return walkinCustomerRec.getValidationResponse();
}
```


Solution 10.2

EB.API	WALKIN.CUSTOMER.OVERRIDE
--------	--------------------------

Description	EN Walkin Customer Override
Protection Level	Full
Source Type	Method
Java Method	validateRecord
Java Class	WalkinCustomerOverride
Java Package	com.temenos.training
Curr No	1
Inputter.1	20_AUTHORISER_OFS_BROWSERTC
Date time.1	12 MAY 20 15:58
Authoriser	20_AUTHORISER_OFS_BROWSERTC
Company	GB0010001
Dept Code	1

Version	ST.WALKIN.CUSTOMER,DEMO
---------	-------------------------

Records Per Page	1
Fields Per Line	1
No Of Auth	0
Local Ref Field	LOCAL_REF
Input Routine.1	WALKIN.CUSTOMER.OVERRIDE
Report Locks	Yes

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Create EB.API Record.

Create a Version Called ST.WALKIN.CUSTOMER,DEMO and attach the INPUTROUTINE field with the EB.API ID Created

Solution 10.2

St Walkin Customer Demo 100100

Name	Harry
Phone	206 553-6944
Email	harrycrisp@gmail.com
Override 1	This Phone number is used at the CUSTOMER No(s): 100806 129034 100108 100109 100110 100121 100122 100123 100124 100125 150150 100100
Override 2	This Email Id is used at the CUSTOMER No(s): 100100
Record Status	INAU
Curr No	1
Inputter 1	25030_AUTHORIZER_OF_S_IRISPA

This Phone number is used at the CUSTOMER No(s): 100806 129034 100108 100109 100121 100122 100123 100124 100125 150150 100100

This Email Id is used at the CUSTOMER No(s): 100100

CANCEL ACCEPT

Override thrown with the list of Customer Ids used with Phone Number

| Practice 10.3

- Attach the EB.API Created in the previous exercise at the Application Level

Attach the EB.API Created in the previous exercise at the Application Level

Solution 10.3 - Using EB.TABLE.PROCEDURES

PGM.FILE	WALKIN.CUSTOMER.OVERRIDE
Type	S
Product	EB
Curr No	1
Inputter.1	19_INPUTTER_OFS_BROWSERTC
Date time.1	

EB.TABLE.PROCEDURES	ST.WALKIN.CUSTOMER
Description	EN Walkin Customer
Crossval Proc.1	WALKIN.CUSTOMER.OVERRIDE
Curr No	1
Inputter.1	19_INPUTTER_OFS_BROWSERTC
Date time.1	12 MAY 20 23:43
Authoriser	19_INPUTTER_OFS_BROWSERTC
Company	GB0010001
Dept Code	1

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Create an PGM.FILE Entry with the TYPE =S and PRODUCT = EB
Create an entry in EB.TABLE.PROCEDURES with the ID of LOCAL APPLICATION Entry created before.

Attach the PGM.FILE created before as CORSSVAL PROCEDURE

Solution 10.3

ST.WALKIN.CUSTOMER 100100

Name	Harry
Phone	206 553 6944
Email	harrycrisp@gmail.com
Override.1	This Phone number is used at the CUSTOMER No(s) 100806 129034 100108 100121 100107 100109 190110 100122 100110 100106 100111 100123 100125 150150 100100
Override.2	This Email Id is used at the CUSTOMER No(s) 100100
Record Status	INAU

This Phone number is used at the CUSTOMER No(s) 100806 129034 100108 100105 100121 100107 100109 190110 100122 100110 100106 100111 100123 100124 100120 100125 150150 100100

This Email Id is used at the CUSTOMER No(s) 100100

CANCEL ACCEPT

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Create a record using the application ST.WALKIN.CUSTOMER and create a record with existing email id
Override thrown for the customers who is using the same email ids.

| Practice 10.4

- Default the value of the Email field with abc@gmail.com for all the customers created in ST.WALKIN.CUSTOMER

Default the value of the Email field with abc@gmail.com for all the customers created in ST.WALKIN.CUSTOMER

| Solution 10.4

```
@Override
public void defaultFieldValues(String application, String currentRecordId, TStructure currentRecord,
    TStructure unauthorisedRecord, TStructure liveRecord, TransactionContext transactionContext) {

    WalkinCustomerRecord walkinCustomerRec = new WalkinCustomerRecord(currentRecord);

    if(walkinCustomerRec.getEmail().toString().isEmpty())
    {
        walkinCustomerRec.setEmail("abc@abc.com");
        currentRecord.set(walkinCustomerRec.toStructure());
    }
}
```

Solution 10.4 – EB.API and PGM.FILE

EB.API WALKIN.CUSTOMER.DEFAULT	
Description	EN Walkin Customer default email
Protection Level	Full
Source Type	Method
Java Method	defaultFieldValues
Java Class	WalkinCustomerOverride
Java Package	com.temenos.training
Curr No	1
Inputter.1	19_AUTHORISER__OFS_BROWSERTC
Date time.1	13 MAY 20 00:29
Authoriser	19_AUTHORISER__OFS_BROWSERTC
Company	GB0010001
Dept Code	1

PGM.FILE WALKIN.CUSTOMER.DEFAULT	
Type	S
Product	EB
Curr No	1

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Create EB.API with Class, Method and Package Information.
Create PGM.FILE entry with Type = SUBROUTINE and Product as EB

Solution 10.4 – EB.TABLE.PROCEDURES

EB.TABLE.PROCEDURES		ST.WALKIN.CUSTOMER
Description	EN	Walkin Customer
Check Rec Proc.1	WALKIN.CUSTOMER.DEFAULT	Walkin Customer default email
Crossval Proc.1	WALKIN.CUSTOMER.OVERRIDE	Walkin Customer Override
Curr No	2	

Attach the PGM.FILE id as the CHECK.REC.PROC in EB.TABLE.PROCEDURES

| Solution 10.4

ST.WALKIN.CUSTOMER	100101
Name	
Phone	
Email	abc@abc.com
Override.1	

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Try to create new record in ST.WALKIN.CUSTOMER application.
The email should be defaulted with abc@gmail.com

| Lesson Summary



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I Described, Create Local Application
Generate API
Program on Local Application
Application Level Validation



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