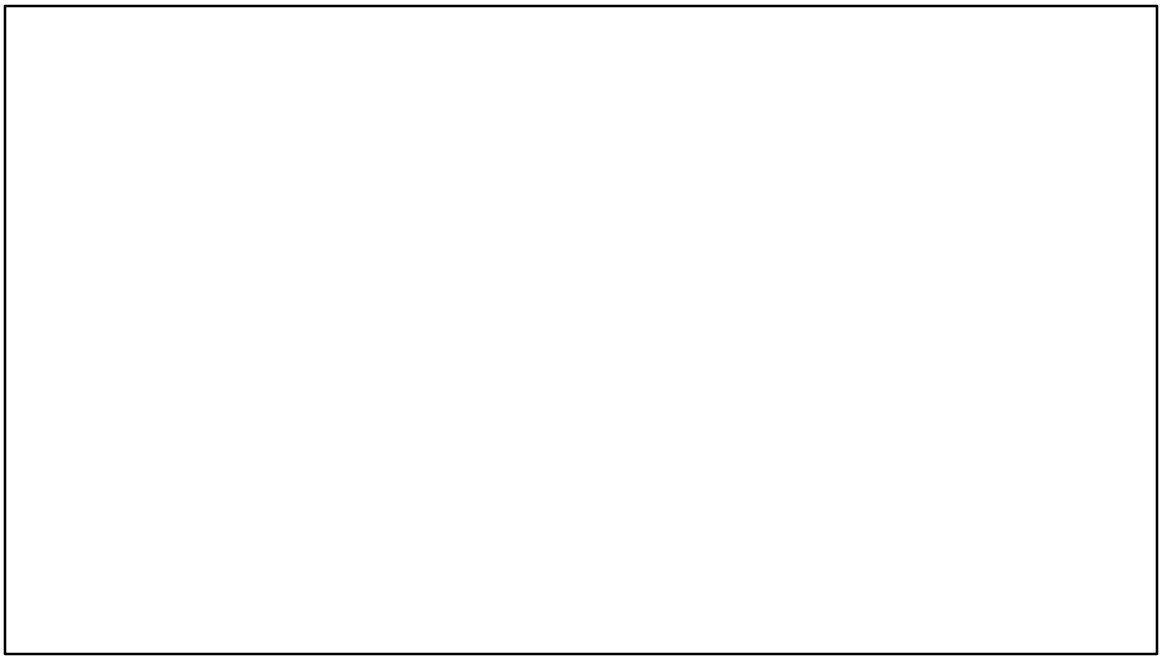

Local Reference Field

Transact Extensibility for Java (English)

2020 Q1

TEMENOS
Learning Community

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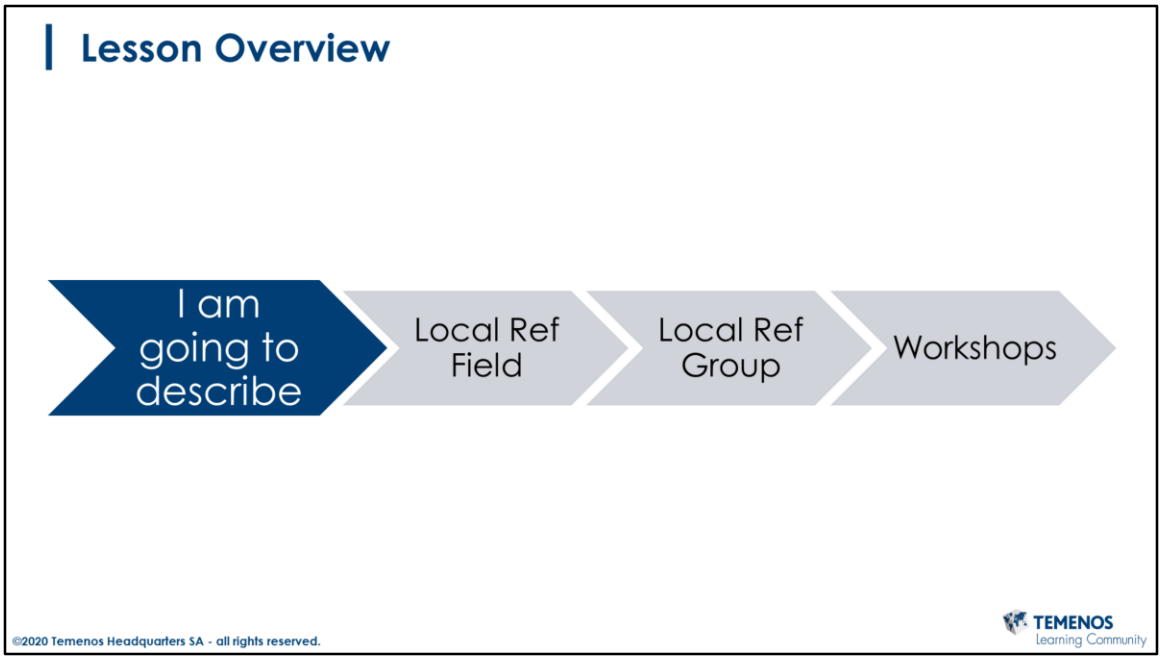

I am going to describe
- Local Ref Field
- Local Ref Group
- Workshops

Local Application in Java Framework

- T24 Application allow the entry of additional local customized input fields without any program modifications
- Addition of Local fields is only valid on applications, which have already reserved a field called LOCAL.REF
  - LOCAL.TABLE - This table allows to specify details of local fields to be defined.
  - LOCAL.REF.TABLE – this table is to attach the local field created to the specific application

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T24 Application allow the entry of additional local customized input fields without any program modifications

Addition of Local fields is only valid on applications, which have already reserved a field called LOCAL.REF

LOCAL.TABLE - This table allows to specify details of local fields to be defined.

LOCAL.REF.TABLE – this table is to attach the local field created to the specific application

Java Methods

- Method of T24 Record
  - getLocalRefField
  - getLocalRefGroups
  - getLocalRefNames
- All record classes have the above methods to access local reference fields

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Method of T24 Record
getLocalRefField
getLocalRefGroups
getLocalRefNames

getLocalRefField(FieldName)

- This interface is used to read the single field in Local Reference
- Parameters
  - Input: FieldName – Name of the Local Ref Field
  - Returns: value in TField

```
@Override
public void updateCoreRecord(String application, String currentRecordId, TStructure currentRecord,
        TStructure unauthorisedRecord, TStructure liveRecord, List<String> versionNames, TBoolean isZeroAuth,
        List<String> currentRecordIds, List<TStructure> currentRecords, TransactionContext transactionContext) {

    DataAccess dataAccess = new DataAccess(this);

    CustomerRecord customerRec = new CustomerRecord(dataAccess.getRecord("BNK", "CUSTOMER", "", currentRecordId));

    CustomerEducationRecord cusEduRec = new CustomerEducationRecord(currentRecord);

    TField segment = customerRec.getLocalRefField("CUSTOMER.SEGMENT");

    System.out.println("Segment of the Customer :"+segment.toString());
```

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This interface is used to read the single field in Local Reference
Parameters

Input: FieldName – Name of the Local Ref Field
Returns: value in TField

getLocalRefGroups(FieldName)

- This interface is to read the Multi Value Group
- Parameters
  - Input: FieldName – Name of the Multi Value Group
  - Returns: List of LocaRefGroup

```
@Override
public void updateCoreRecord(String application, String currentRecordId, TStructure currentRecord,
        TStructure unauthorisedRecord, TStructure liveRecord, List<String> versionNames, TBoolean isZeroAuth,
        List<String> currentRecordIds, List<TStructure> currentRecords, TransactionContext transactionContext) {

    DataAccess dataAccess = new DataAccess(this);

    CustomerRecord customerRec = new CustomerRecord(dataAccess.getRecord("BNK", "CUSTOMER", "", currentRecordId));

    CustomerEducationRecord cusEduRec = new CustomerEducationRecord(currentRecord);

    TField segment = customerRec.getLocalRefField("CUSTOMER.SEGMENT");

    System.out.println("Segment of the Customer :"+segment.toString());

    List<EducationClass> eduList = cusEduRec.getEducation();
    List<LocalRefGroup> localRef = customerRec.getLocalRefGroups("CUS.EDUCATION");
    localRef.clear();
```

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This interface is to read the Multi Value Group

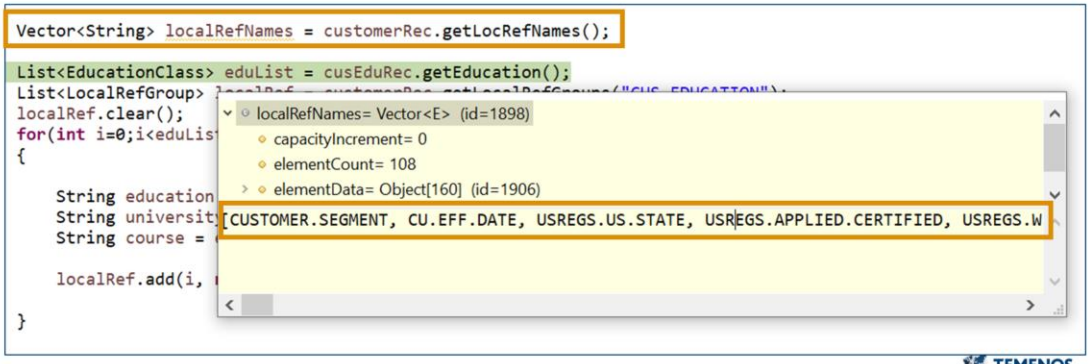
Parameters

Input: FieldName – Name of the Multi Value Group

Returns: List of LocaRefGroup

getLocalRefNames()

- This interface returns the names of the local reference field in the Record Object
- Parameters
  - Input: Null



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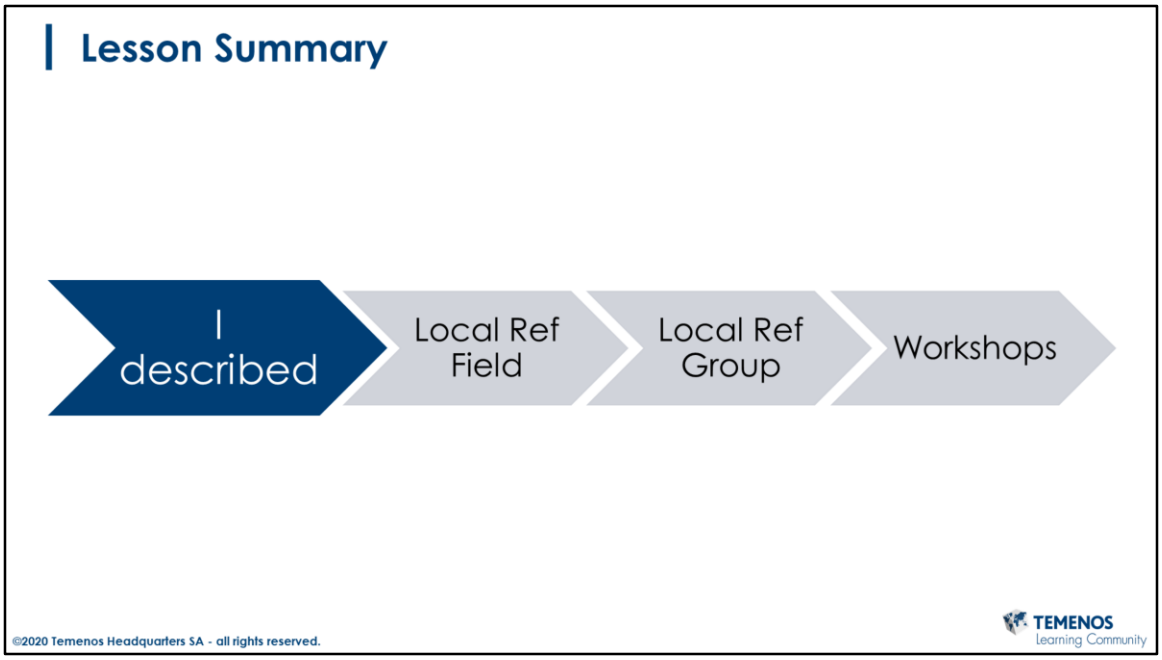
This interface returns the names of the local reference field in the Record Object
Parameters

Input: Null

Returns: Vector<String>



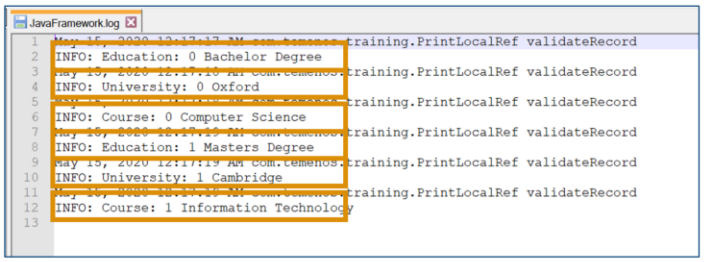
I described
- Local Ref Field
- Local Ref Group
- Workshops

Practice 11.1

- Create below Local Ref Group

Field Name	Char Type	Max Char
CUS.EDUCATION	A	35
UNIVERSITY	A	35
COURSE	A	10

- Attach the above fields as Local Ref Group to CUSTOMER Application
- Write a Input Routine to display the Local Reference Group Values in Log file.



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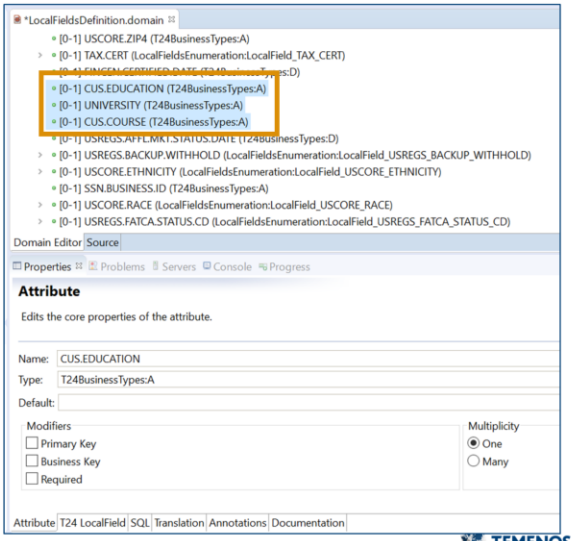
Create below Local Ref Group

Attach the above fields as Local Ref Group to CUSTOMER Application
Write a Input Routine to display the Local Reference Group Values in Log file.

Solution 11.1 – LocalFieldsDefinition

- Add the 3 fields with the Char type A and Max Char as 35



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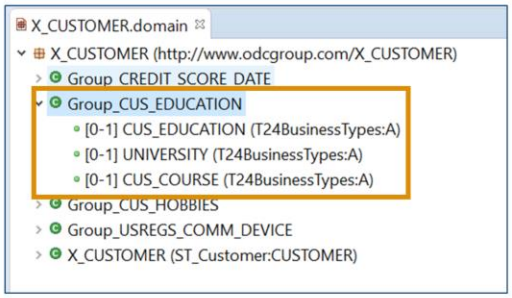
Add the 3 fields with the Char type A and Max Char as 35

Solution 11.1 – LocalRefApplication

- Create a Group called Group_CUS_EDUCATION and add the 3 local reference field as attributes



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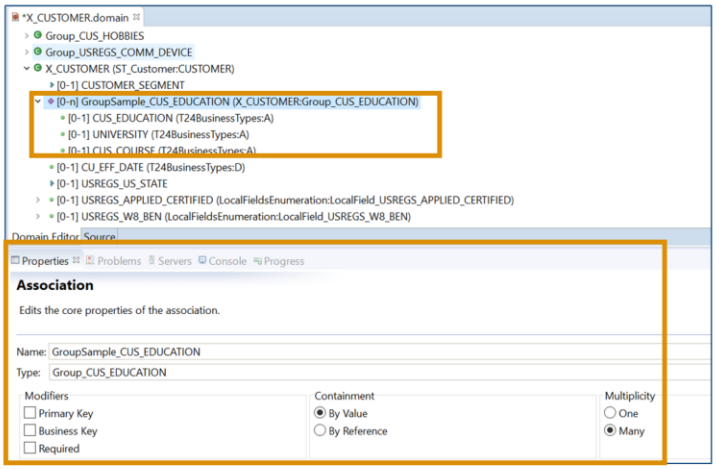
Create a Group called Group_CUS_EDUCATION and add the 3 local reference field as attributes

Solution 11.1 – LocalRefApplication

- Add the Group Created to the CUSTOEMR Application as ASSOCIATION



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Add the Group Created to the CUSTOEMR Application as ASSOCIATION

Solution 11.1 - validateRecord

```
@Override
public TValidationResponse validateRecord(String application, String currentRecordId, TStructure currentRecord,
        TStructure unauthorisedRecord, TStructure liveRecord, TransactionContext transactionContext) {
    Logger logger = Logger.getLogger("JAVAT24");
    try {
        //Create a log file under any dir
        FileHandler fileHandler = new FileHandler(
                "C:/Temenos/UTP-REL-2020.02.13-01-132-saf-retailsuite-developer-s08/Temenos/TAFJ/log/JavaFramework.log");
        logger.addHandler(fileHandler);
        SimpleFormatter formatter = new SimpleFormatter();
        fileHandler.setFormatter(formatter);
    } catch (SecurityException e) {

    } catch (IOException e) {

    }
    //Cast the TStructure to Customer Record
    CustomerRecord customerRec = new CustomerRecord(currentRecord);
    //Read the Local Ref Group using getLocalRefGroups
    List<LocalRefGroup> educationList = customerRec.getLocalRefGroups("CUS.EDUCATION");

    for (int i = 0; i < educationList.size(); i++) { //Loop through the list and read the Local Ref FIelds
        String edu = educationList.get(i).getLocalRefField("CUS.EDUCATION").toString();
        String univ = educationList.get(i).getLocalRefField("UNIVERSITY").toString();
        String cour = educationList.get(i).getLocalRefField("CUS.COURSE").toString();
        logger.info("Education: " + i + " " + edu);
        logger.info("University: " + i + " " + univ);
        logger.info("Course: " + i + " " + cour);

    }
    return customerRec.getValidationResponse();
}
```

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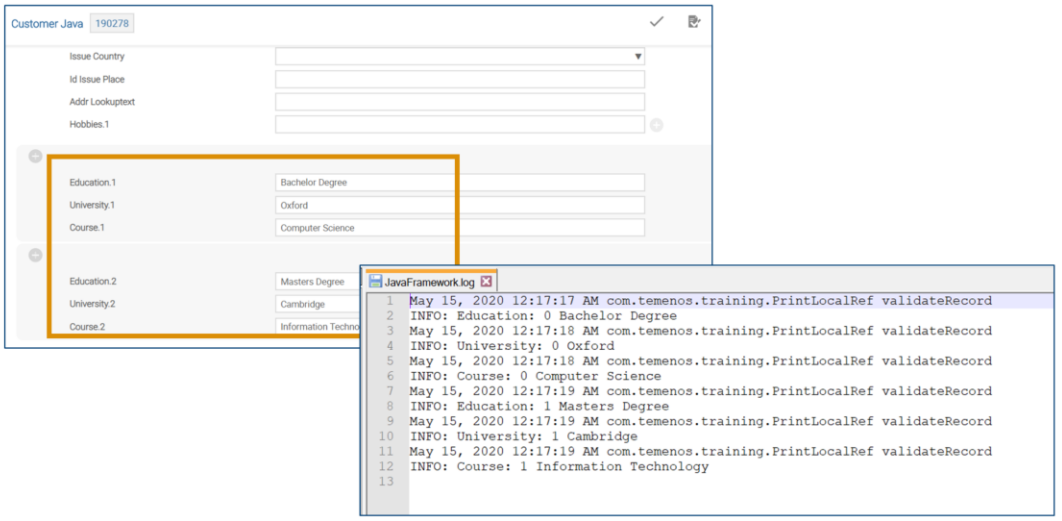
Create the Above Program and attach it as INPUT Routine to any CUSTOMER version

Solution 11.1 - Output



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The log file should have the Education Local Ref Group printed

Practice 11.2

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

Field Name	Data Type	Max Char
CUS.EDUCATION	A	35
UNIVERSITY	A	35
COURSE	A	10

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

- Write a updateRecord method that should update the CUSTOMER table with Education Details given in the CUSTOMER.EDUCATION local table

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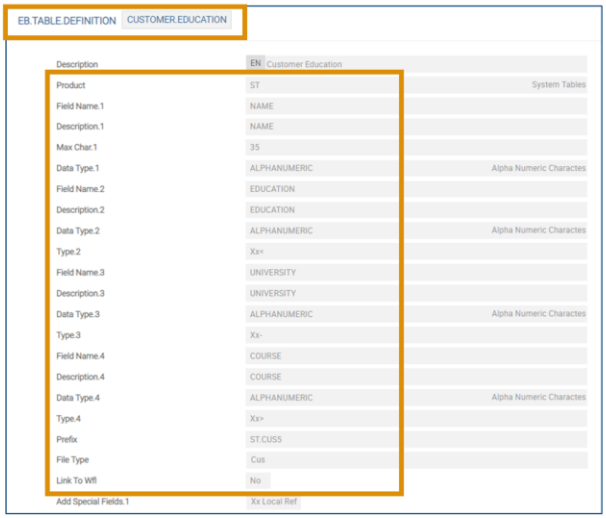
Create a local application called CUSTOMER.EDUCATION with below fields
Field Name
Data Type
Max Char
CUS.EDUCATION
A
35
UNIVERSITY
A
35
COURSE
A
10

Write a updateCoreRecord method that should update the CUSTOMER table with Education Details given in the CUSTOMER.EDUCATION local table

Field Name
Data Type
Max Char
CUS.EDUCATION
A
35
UNIVERSITY
A
35
COURSE
A
10

Solution 11.2 – EB.TABLE.DEFINITION

- Create EB.TABLE.DEFINITION with below fields,
  - NAME
  - CUS.EDUCATION
  - UNIVERSITY
  - CUS.COURSE



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Create EB.TABLE.DEFINITION
with below fields,
NAME
CUS.EDUCATION
UNIVERSITY
CUS.COURSE

Solution 11.2 - updateRecord

```
public void updateRecord(String application, String currentRecordId, TStructure currentRecord,
        TStructure unauthorisedRecord, TStructure liveRecord, TransactionContext transactionContext,
        List<TransactionData> transactionData, List<TStructure> currentRecords) {
    DataAccess dataAccess = new DataAccess(this);

    CustomerRecord customerRec = new CustomerRecord(dataAccess.getRecord("BNK", "CUSTOMER", "", currentRecordId));

    CustomerEducationRecord cusEduRec = new CustomerEducationRecord(currentRecord);

    TField segment = customerRec.getLocalRefField("CUSTOMER.SEGMENT");

    System.out.println("Segment of the Customer :"+segment.toString());

    Vector<String> localRefNames = customerRec.getLocRefNames();

    List<EducationClass> eduList = cusEduRec.getEducation();
    List<LocalRefGroup> localRef = customerRec.getLocalRefGroups("CUS.EDUCATION");
    int len = localRef.size();
    for(int j=len-1;j>0;j--)
    {
        localRef.remove(j);
    }

    for(int i=0;i<eduList.size();i++)
    {
        String education = eduList.get(i).getEducation().toString();
        String university = eduList.get(i).getUniversity().toString();
        String course = eduList.get(i).getCourse().toString();

        localRef.add(i,new LocalRefGroup(education,university,course));
```

```
        TransactionData txnData = new TransactionData();
        txnData.setFunction("I");
        txnData.setNumberOfAuthoriser("0");
        txnData.setVersionId("CUSTOMER,JAVADEMO");

        transactionData.add(txnData);
        currentRecords.add(customerRec.toStructure());
    }

    currentRecords.add(customerRec.toStructure());

}
```

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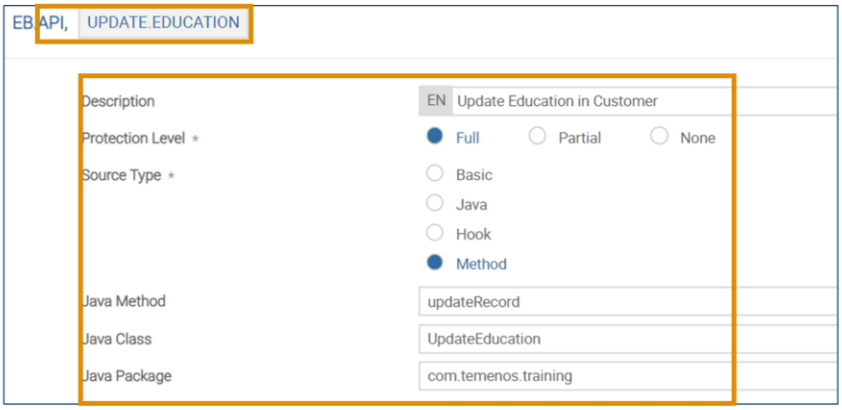
Solution 11.2 – EB.API



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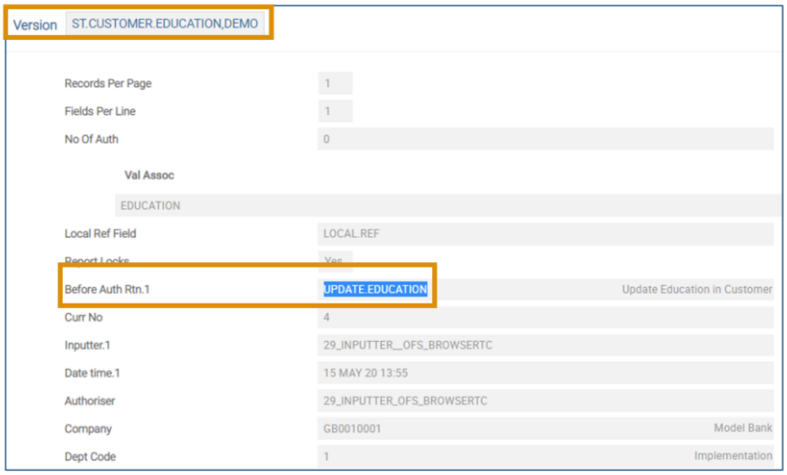
Create EB.API for the updateRecord Method

Solution 11.2 – Version



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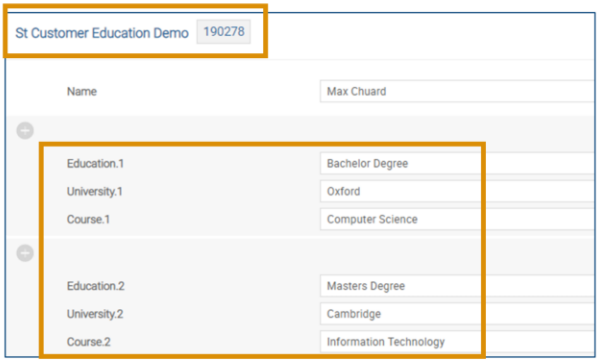
Attach the EB.API as Before Auth Routine in VERSION created for ST.CUSTOMER.EDUCATION Application

Solution 11.2 – Create Education Details



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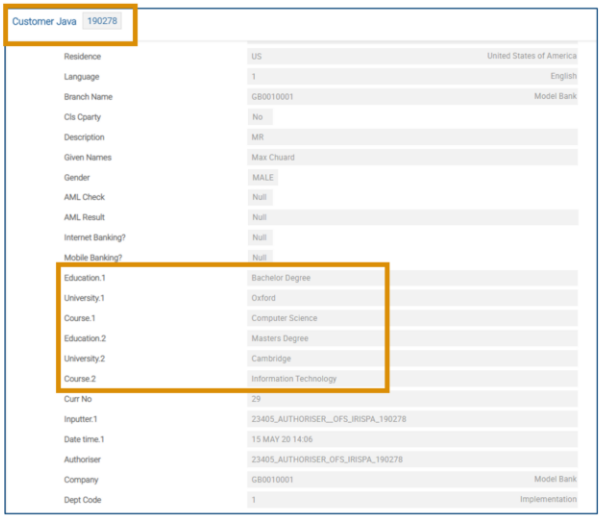
Create an entry in CUSTOMER.EDUCATION application with Customer Number

Solution 11.2 – CUSTOMER Record Updated

- Customer Updated



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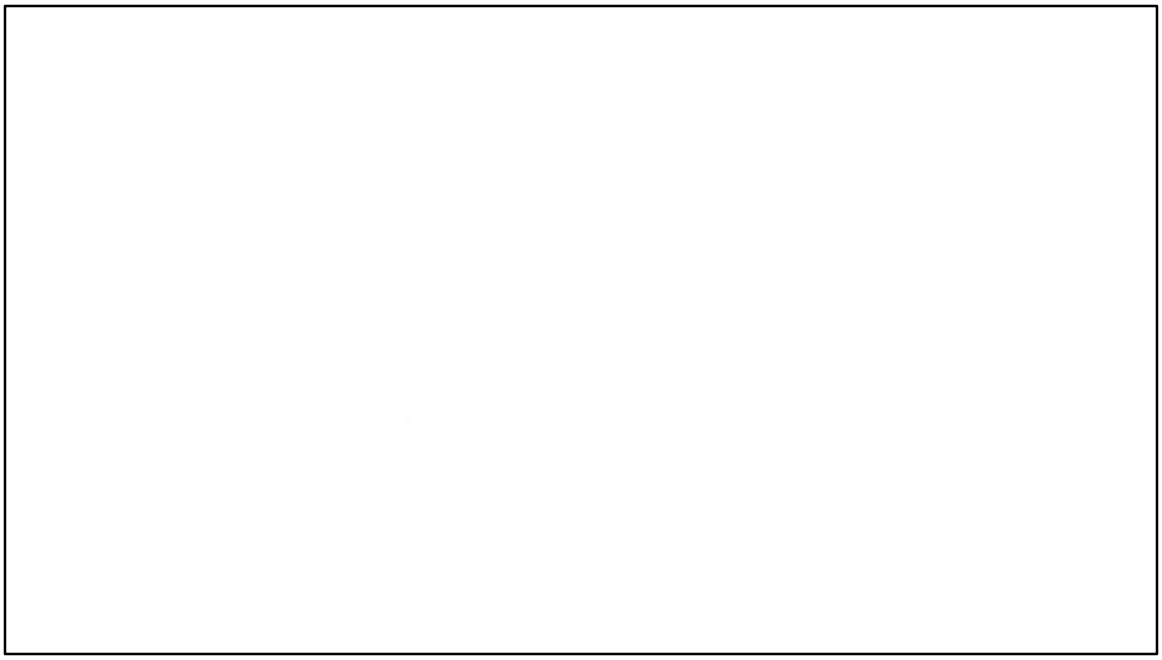
Customer Table Updated with the education details entered in CUSTOMER.EDUCATION Application

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