# TRAINING PLAN PROJECT

## Purpose

To generate training plan for the year.

## Scope

Phoenix Developer’s SQL training program

Duration: 4 Days

Project Description: TTA Training institute conducts various courses on software development. The training institute wants a software application developed to plan, schedule and manage the courses conducted. The courses are conducted through training programs that are scheduled periodically. Each training program has a set of courses. A fee is charged for each course. The database developer is assigned the

## Registers

Create the following tables. Write scripts to populate these tables with data.

|  |  |
| --- | --- |
| **TBLPROGRAM** |  |
| FLDPROGRAMID (PK) | UNIQUEIDENTIFIER DEFAULT NEWSEQUENTIALID |
|  |  |
| FLDPROGRAMCODE | VARCHAR(10) |
| FLDPROGRAMNAME | VARCHAR(500) |
| FLDDTKEY | UNIQUEIDENTIFIER DEFAULT NEWSEQUENTIALID |

|  |  |
| --- | --- |
| **TBLMODULE** |  |
| FLDPROGRAMID (FK) | UNIQUEIDENTIFIER |
| FLDMODULEID (PK) | UNIQUEIDENTIFIER DEFAULT NEWSEQUENTIALID |
| FLDMODULECODE | VARCHAR(10) |
| FLDMODULENAME | VARCHAR(500) |
| FLDDTKEY | UNIQUEIDENTIFIER DEFAULT NEWSEQUENTIALID |

|  |  |
| --- | --- |
| **TBLCOURSE** |  |
| FLDPROGRAMID (FK) | UNIQUEIDENTIFIER |
| FLDMODULEID (FK) | UNIQUEIDENTIFIER |
| FLDCOURSEID (PK) | UNIQUEIDENTIFIER DEFAULT NEWSEQUENTIALID |
| FLDCOURSECODE | VARCHAR(10) |
| FLDCOURSE | VARCHAR(500) |
| FLDFEE | DECIMAL(6,2) |
| FLDDTKEY | UNIQUEIDENTIFIER DEFAULT NEWSEQUENTIALID |

|  |  |
| --- | --- |
| **TBLTRAININGPLAN** |  |
| FLDTRAININGID (PK) | UNIQUEIDENTIFIER DEFAULT NEWSEQUENTIALID |
| FLDPROGRAMID (FK) | UNIQUEIDENTIFIER |
| FLDMODULEID (FK) | UNIQUEIDENTIFIER |
| FLDPLANNO | VARCHAR(10) |
| FLDFROMDATE | DATETIME |
| FLDTODATE | DATETIME |
| FLDDESCRIPTION | VARCHAR(200) |
|  |  |
| FLDTRAININGCOST | DECIMAL(10, 2) |
| FLDDTKEY | UNIQUEIDENTIFIER DEFAULT NEWSEQUENTIALID |

|  |  |
| --- | --- |
| **TBLTRAININGCOURSE** |  |
| FLDTRAININGCOURSEID (PK) | UNIQUEIDENTIFIER |
| FLDTRAININGID (FK) | UNIQUEIDENTIFIER |
| FLDCOURSEID (FK) | UNIQUEIDENTIFIER |
| FLDCOURSECODE | VARCHAR(10) |
| FLDTESTYN | SMALLINT |
| FLDFEE | DECIMAL (6, 2) |
| FLDNUMBEROFTRAINEES | SMALLINT |
| FLDDTKEY | UNIQUEIDENTIFIER DEFAULT NEWSEQUENTIALID |

(PK) – PRIMARY KEY

(FK) – FOREIGN KEY

## Transactions

As per the various action modes viz. – Add, Modify, Delete, View, the proposed transactions to be done in this module are

1. The user should be able to view the list of training plans created.
2. The user should be able to create a new training plan with the corresponding courses.
3. The user should be able to modify the training plan and its courses.
4. The user should be able to delete the training plan or one course at a time. When the plan is deleted, the courses planned will also get deleted.

## Major processes / algorithms

### Registers

1. Write stored procedures to INSERT, UPDATE, DELETE and LIST from Program, Module and Course registers.

Provide the following validations in the stored procedure

1. The Program, Module and Course entries that are used in Training Plan cannot be deleted.
2. Modifications to the name will automatically reflect in the Training Plan.

### Training Plan

1. Write stored procedures to INSERT, UPDATE, DELETE and LIST training plan.

Provide the following validations in the stored procedure

1. Each training plan can have multiple courses within a single module and program.
2. Number of trainees should be less than the maximum number of trainees in the course register.
3. From date should be less than or equal to To Date.

Provide the following field validations in the Training Plan stored procedures using RAISERROR.

If the To Date is not entered, system displays the following error. “You have not entered TO Date. Enter a To Date”.

If the To Date is less than the From date, system displays the following error. “To date should be later than the From date. Enter a valid To date”.

If the Program Code is not entered, system displays the following error. “You have not entered a Program Code. Specify a program code.”

If the Module Code is not entered, system displays the following error. “You have not entered a module code. Specify a module code”.

If the Program code does not exist in the Program Register, system displays the following error. “Program code is not defined. Specify a valid Program code”.

If the Module code does not exist in the Module Register, system displays the following error. “Module code is not defined. Specify a valid Module code”.

### Courses in Training Plan

If the number of trainees is not entered, system displays the following error. “You have not entered the Number of Trainees. Specify the Number of trainees.”

If the number of trainees is less than or equal to zero, system displays the following error. “Number of trainees must be greater than zero. Specify a valid number of trainees”.

If the Course code does not exist in the Course Register, system displays the following error. “Course code is not defined. Specify a valid course code”.

If the Course code is already entered in the plan, system displays the following error. “Course is already requested. Clear the repeated record.”

The Course Fee will be added to training cost when the course is added. The cost to be added is calculated as Course Fee X Number of Trainees.

#### Delete

Prior to deleting the plan, the system prompts the following message. “Are you sure you want to delete the Plan and its corresponding courses?”

On successful delete, system displays the following message. “Plan No and corresponding courses deleted.”