MS.NET Live Project Training Syllabus

What we are going to Learn

1. Here we will explain you everything you are going to learn in this course.
2. This module contains an introduction video which explains this document file.

Developing N - tier windows and Web Application

1. A video of developing a N- tier architecture windows based application will be provided online, which will be giving you a clear picture of how to start with the project and what care should be taken during the implementation.
2. We will then extend the same application and reuse most of the code to develop Web based N-Tier Application
3. Complete Sample Code of both the projects will be provided here.

Documenting Roles and their tasks

1. For every project there are some Roles defined with the help of which it is known what a particular users responsibilitie are, according to a particular position or status in a group or organization he/she belongs to. Based on the roles the privileges to access a particular page is given to the user.
2. **Input:**
    1. Participants will be explained all the types of users (Roles) and their individual task list.
    2. This information also will be given verbally.
3. **Task:**
    1. Participant should prepare a document listing modules / tasks in each and every role.
    2. Role Overview Document must be submitted.
4. **Documents:**
    1. Roles and their responsibilities Document.

Requirement Analysis and Documenting Project Abstract

1. **Input:**
    1. A brief overview of the requirement will be given to the participant.
    2. A template of Abstract Document also will be provided.
2. **Task:**
    1. Participant will have to draft an abstract document as per the requirements given verbally.
3. **Documents:**
    1. Project Abstract Document

Understanding all Modules and documenting features

1. Every project will be divided in to one or modules, each module will have its own functionality and importance. Project will be divided in to modules in order to ease the understanding of the project and development. Based on the project requirement and the roles identified the modules will be identified. In module document we are going to specify what the module is about, functionalities of a module and which role is going to use this module.
2. **Input:**
    1. Detailed explanation about each and every module will be provided to the participants
3. **Task:**
    1. Participant is supposed to provide detailed document explaining the operations to be performed in and every module.
4. **Document:**
    1. Module Description Document

Designing and Creating Database Schema in SQL Server

1. For storage and retrieval we need a persistent storage in the form of Database, here we need to specify the following:
    1. What are the different Entities
    2. What are the fields and their types and size.
    3. Defining the relationships between Entities
    4. Validation rules for each field. Static values or sample data for each field must be provided
    5. GUI element (Control) for each field of the entity.
2. **Input:**
    1. A template of excel file will be provided to the participant
    2. Detailed explanation of any one entity including documenting in Excel file will be provided.
3. **Task:**
    1. Participant will have to decide and finalize database entities for every module based on the inputs given.
    2. An excel file with all the details of the entities must be submitted.
4. **Document:**
    1. Entity Description Document

Setup Project in VS.NET

1. Its very important that we plan proper Name, directory structure for the application.☐ Creating and setting up the application in visual studio means, creating different folders for different classes like BO, Data, DAO, utility etc. for ease of navigation and maintenance of the project.
2. **Input:**
    1. Demonstration of how to create a web application project

     2. Create proper directory structure based on roles of different users.
3. **Task:**
     1. Participant should do the same
4. **Document:**
     1. Basic application setup with directory structure

Developing Data classes and Helper Classes

1. **Data Class**
     1. In the Data classes the developer is going to represent each table of database as a separate data class which holds every
     2. column of the table as a property with specific return type as the data type of the column in the table.
2. **Input**:
     1. Demonstration of writing any one data class
3. **Task:**
     1. Participant should write data class for all the tables in the database
4. **Document:**
     1. Application with Data Classes
5. **Helper class**
     1. Helper class is a user defined class where the common functions are defined.Common functions are the ones which arebeing used in more than one page so instead of writing them in each and every page we are going to put them in one classcalled "Helper".
6. **Input:**
     1. Skeleton with declarations will be provided to the participant
7. **Task:**
     1. Must provide implementation for all the members of this class
8. **Document:**
     1. Application with Helper Classes

Writing Custom Exception classes

1. Exception handling is very crucial in every application.
2. **Input:**
     1. Demonstration of how to write any one Custom Exception class
3. **Task:**
     1. Participant should write other Exception classes.
4. **Document:**
     1. Application with Custom Exception Classes

Documenting and Programming DAO classes

1. **Documenting DAO Classes**
     1. This will be a semi technical document created by a developer. In this document developer is going to specify the sequence of actions to be performed by the user. This document will help a developer to enter design phase to implementation.
2. **Input:**

    1. Template along with demonstration of how to write the document for any one module will be provided

3. **Task:**
   1. Participant will write the documentation for each and every module based on the guide lines provided.
4. **Document:**
   1. Step by Step DAO Process document
5. **Programming DAO classes**.
   1. All the classes of DAO will be in the Data Access Layer (DAL).This layer provides a simplified access to the persistent storage or Database.
   2. DAL will hide the complexity of underlying data source to the external world.
   3. For instance, instead of using the commands such as insert, delete, update to access a specific table in the database, we can write a class and few stored procedures in the database and we can call the stored procedure from a method inside the class which would return the object of specific type containing the requested values. Also we can fetch data from several tables of the application with a single call. ☐ We can also make the DAL to support multiple database types.

Documenting and Programming BO classes

1. **Documenting BO classes**

This will be a semi technical document created by a developer. In this document developer is going to specify the sequence of actions to be performed by the user. This document will help a developer to enter design phase to implementation.

1. **Input:**
   1. Template along with demonstration of how to write the document for any one module will be provided
2. Task:
   1. Participant will write the documentation for each and every module based on the guide lines provided.

Document: Step by Step BO Process document
Programming BO Class
Based on Detailed Process document for each module here we are going to program the BO classes.

1. **Input:**
   1. Demonstration of how to write any one BO class
2. **Task:**
   1. Participant should write other BO classes.
3. **Document:**
   1. Application with BO Classes

Design and Develop GUI

1. To get an idea about how the screens are going to look we are going to visit few websites and based on the above inputs and details we are going to develop the screens on paper and if everything looks finethen we are going to start designing the screens. After preparing the screens we have to integrate the application with the respective BO's.
2. **Input:**
    1. Demonstration of how to Design and code any one GUI form
3. **Task:**
    1. Participant should do the same for other forms
4. **Document:**
    1. Application with all GUI

Deploying on Internet using FTP

1. Demonstration of how to create a Setup an application on the web server of bestdotnettraining.com
2. How to use FTP client to upload and configure the application on server.