

# Dot Net Fresher's Training

July – 2014

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Prepared by	<b>Sushant Banerjee</b> ( <a href="mailto:sushantba@cybage.com">sushantba@cybage.com</a> )
Reviewed by	Pushkar Kulkarni
For more information, contact <b>Akanksha Shaily (Ext: 7343)</b>	

## .NET FrTP July 2014 - B.E. Fresher

Day	Topic	Trainer	Date	Time
1	Introductory session	Pushkar Kulkarni	17-Jul	10:00am-10:30am
1	Pre-Assessment	Sushant Banerjee	17-Jul	10:30am onwards
2	Introduction to TFS	Sonal Patwa	18-Jul	10:00am-12:00pm
	<b>SQL Server 2012</b>			
3	RDBMS and SQL Server 2012	Sushant Banerjee	21-Jul	10:00am-1:00pm
4	DDL and DML Statements	Sushant Banerjee	22-Jul	10:00am-1:00pm
5	SELECT Queries and Built-in-Functions	Sushant Banerjee	23-Jul	10:00am-1:00pm
6	Views and Indexes	Sushant Banerjee	24-Jul	10:00am-1:00pm
7	Stored Procedures and UDFs	Sushant Banerjee	25-Jul	10:00am-1:00pm
8	Triggers and Transactions	Sushant Banerjee	28-Jul	10:00am-1:00pm
	<b>Test - 1</b>		<b>TBD</b>	
	<b>C# 5 and Visual Studio 2013</b>			
9	C# Language Fundamentals - Day1	Sushant Banerjee	29-Jul	10:00am-1:00pm
10	C# Language Fundamentals - Day2	Sushant Banerjee	30-Jul	10:00am-1:00pm
11	OOP Concepts - Day1	Sushant Banerjee	31-Jul	10:00am-1:00pm
12	OOP Concepts - Day2	Sushant Banerjee	01-Aug	10:00am-1:00pm
13	Overview of .NET Framework	Sushant Banerjee	04-Aug	10:00am-1:00pm
14	Exception Handling, Debugging, Using Visual Studio	Sushant Banerjee	05-Aug	10:00am-1:00pm
15	Delegates and Events	Sushant Banerjee	06-Aug	10:00am-1:00pm
16	Collections and Generics	Sushant Banerjee	07-Aug	10:00am-1:00pm
17	Threading and File Handling	Sushant Banerjee	08-Aug	10:00am-1:00pm
18	Attributes and Serialization	Sushant Banerjee	11-Aug	10:00am-1:00pm
	<b>Test - 2</b>		<b>TBD</b>	
	<b>Database Programming in C#</b>			
19	ADO.NET - Day1	Sushant Banerjee	12-Aug	10:00am-1:00pm
20	ADO.NET - Day2	Sushant Banerjee	13-Aug	10:00am-1:00pm
	<b>HTML</b>			
21	HTML Videos - Day1	Video Session	14-Aug	10:00am-12:00pm
22	HTML Videos - Day2	Video Session	18-Aug	10:00am-12:00pm
23	HTML Videos - Day3	Video Session	19-Aug	10:00am-12:00pm
	<b>EF and LINQ</b>			
24	EF - Introduction and DB first	Amit Dhandal	20-Aug	10:00am-1:00pm
25	Code First	Amit Dhandal	21-Aug	10:00am-1:00pm
26	Linq	Pushkar K	22-Aug	10:00am-1:00pm

	<b>Test - 3</b>		<b>TBD</b>	
	<b>ASP.NET MVC 5</b>			
27	Introduction to ASP.NET MVC	Sushant Banerjee	25-Aug	10:00am-1:00pm
28	Controllers	Sushant Banerjee	26-Aug	10:00am-1:00pm
29	Views	Sushant Banerjee	27-Aug	10:00am-1:00pm
30	Models	Sushant Banerjee	28-Aug	10:00am-1:00pm
31	Security and Identity	Sushant Banerjee	29-Aug	10:00am-1:00pm
32	ASP.NET MVC Advanced	Sushant Banerjee	01-Sep	10:00am-1:00pm
33	Overview of Distributed Computing	Sushant Banerjee	02-Sep	10:00am-1:00pm
34	Overview of Web Services and WCF	Sushant Banerjee	03-Sep	10:00am-1:00pm
35	Introduction to Web API	Sushant Banerjee	04-Sep	10:00am-1:00pm
	<b>Test - 4</b>		<b>TBD</b>	
	<b>JavaScript</b>			
36	OOJS and JSON - Day1	TBD	05-Sep	10:00am-1:00pm
37	OOJS and JSON - Day2	TBD	08-Sep	10:00am-1:00pm
38	OOJS and JSON - Day3	TBD	09-Sep	10:00am-1:00pm
39	OOJS and JSON - Day4	TBD	10-Sep	10:00am-1:00pm
40	OOJS and JSON - Day5	TBD	11-Sep	10:00am-1:00pm
41	JQuery - Day1	Yogesh Gaikwad	12-Sep	10:00am-1:00pm
42	JQuery - Day2	Yogesh Gaikwad	15-Sep	10:00am-1:00pm
	<b>Test - 5</b>		<b>TBD</b>	
	<b>VIVA</b>		<b>TBD</b>	

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# 1. SQL Server 2012

## Agenda

- RDBMS and SQL Server 2012
- DDL and DML Statements
- SELECT Queries and Built-in Functions
- Views and Indexes
- Stored Procedures and UDFs
- Triggers and Transactions

## Assignments

### Assignment # 1

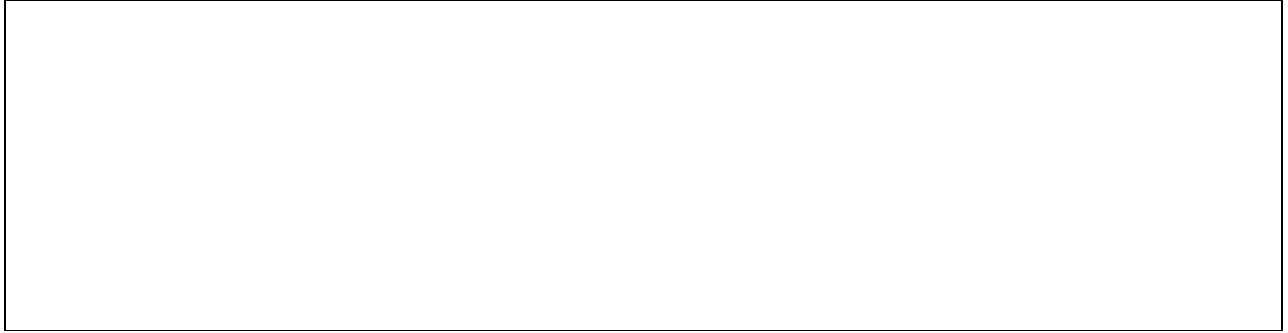
Create a database name “BookStoreDB” and create following tables with specified columns using SQL Server. Create all the required keys and establish relationship among tables wherever required.

1. Author – AuthorId, AuthorName, DateOfBirth, State, City, Phone.
2. Publisher – PublisherId, PublisherName, DateOfBirth, State, City, Phone.
3. Category – CategoryId, CategoryName, Description.
4. Book – BookId, CategoryId, Title, AuthorId, PublisherId, Description, Price, ISBN, PublicationDate, Image.

### Assignment # 2

Create the following objects using the above database and tables :

1. Views
2. indexes
3. Stored Procedures
4. Write following queries (Using SQL Statement and Stored Procedure)
  - i) Retrieve all the books which published in 2013
  - ii) Retrieve all the books which are belonging to category “Technical”
  - iii) Retrieve all the books which are written by a given author and belonging to category “Literature & Fiction”



## 2. C# 5 and Visual Studio 2013

### Agenda

- C# Language Fundamentals
- OOP Concepts
- Overview of .NET Framework
- Exception Handling and Debugging
- Using Visual Studio
- Delegates and Events
- Collections and Generics
- Threading
- File Handling
- Attributes
- Serialization

### Assignments

#### Assignment # 1

Create a console application name “BookStoreApp” using C#. Write the following classes with properties. Use Automatic Properties and use suitable access modifiers for the class and properties. All the properties should have an appropriate data types.

1. Author – AuthorId, AuthorName, DateOfBirth, State, City, Phone.
2. Publisher – PublisherId, PublisherName, DateOfBirth, State, City, Phone.
3. Category – CategoryId, CategoryName, Description.
4. Book – BookId, Category, Title, Author, Publisher, Description, Price, ISBN, PublicationDate.

**Note: You may ignore creating relationship among entities for this assignment.**

## Assignment # 2

Use the “BookStoreApp” and create your static data store using Generic Collections. Create multiple Book objects and store using collection. Write methods to support following operations against the collection:

1. Adding new books
2. Displaying all books
3. Displaying a book by BookId
4. Updating a book by BookId
5. Deleting a book by BookId

**Note: You must use exception handling code wherever required.**

## Assignment # 3

Write appropriate methods for the following requirements:

1. A method should create a file in the hard disk to serialize Book objects and save the objects in XML format.
2. A method should de-serialize the Book objects saved as XML data and consume in the application.

**Note: You must use exception handling code wherever required.**



### 3. Database Programming in C#

#### Agenda

- ADO.NET
- Entity Framework
- LINQ

#### Assignments

##### Assignment # 1

Use the “BookStoreApp” and the “BookStoreDB” you have already created during previous assignments. Create a Data Access Layer for the application. You should call the stored procedure wherever required that you have already created during SQL Server assignments. The DAL should expose appropriate methods for the following operations:

1. Connect to the BookStoreDB
2. Retrieve all books and display in the application
3. Retrieve a book by BookId
4. Add a new book
5. Update an existing book
6. Delete an existing book
7. Write following queries (Using SQL Statement and Stored Procedure) and call them through the code.
  - a) Retrieve all the books which published in 2013
  - b) Retrieve all the books which are belonging to category “Technical”
  - c) Retrieve all the books which are written by a given author and belonging to category “Literature & Fiction”

**Note: You must use exception handling code wherever required. Use ADO.NET here.**

## Assignment # 2

Use the “BookStoreApp” and the “BookStoreDB” you have already created during previous assignments. Replace the Data Access Layer for the application using Entity Framework and LINQ to complete this assignment and the assignment is same as above.

### EF Assignments

- 1) Create following entities and attributes :
  - a) Author – AuthorId, AuthorName, DateOfBirth, State, City, Phone.
  - b) Publisher – PublisherId, PublisherName, DateOfBirth, State, City, Phone.
  - c) Category – CategoryId, CategoryName, Description.
  - d) Book – BookId, CategoryId, Title, AuthorId, PublisherId, Description, Price, ISBN, PublicationDate, Image.
- 2) Connect to the BookStoreDB
- 3) Retrieve all books and display in the application
- 4) Retrieve a book by BookId
- 5) Add a new book
- 6) Update an existing book
- 7) Delete an existing book
  
- 8) Write following queries (Using SQL Statement and Stored Procedure) and call them through the code.
  - a) Retrieve all the books which published in 2013
  - b) Retrieve all the books which are belonging to category “Technical”
  - c) Retrieve all the books which are written by a given author and belonging to category “Literature & Fiction”

**Note: You must use exception handling code wherever required.**

## 4. ASP.NET MVC 5

### Agenda

- Introduction to ASP.NET MVC
- Controllers
- Views
- Models
- Security and Identity
- ASP.NET MVC Advanced
- Overview of Distributed Computing
- Overview of Web Services and WCF
- Introduction to Web API

### Assignments

#### Assignment # 1

Develop an application name “BookStoreApp” using ASP.NET MVC and Entity Framework. The tools to develop this application should be VS 2013 and use LocalDB (SQL Server 2012) to attach your database to the application. The application should meet the following requirements.

#### Phase-I

- 9) The application should have the following entities and attributes :
- a) Author – AuthorId, AuthorName, DateOfBirth, State, City, Phone.
  - b) Publisher – PublisherId, PublisherName, DateOfBirth, State, City, Phone.
  - c) Category – CategoryId, CategoryName, Description.
  - d) Book – BookId, CategoryId, Title, AuthorId, PublisherId, Description, Price, ISBN, PublicationDate, Image.

The application should support two roles – user and administrator.

**An administrator role can perform the following tasks.**

- 10) All the functionality for the Administrator should be in separate Area.
- 11) The application should allow an administrator to add new books, edit and delete existing books.
- 12) The view used for create and edit any entity should be same.
- 13) The application should have following validations. The validations should be on client side as well as server side.
  - a) ISBN of the book should be valid.
  - b) The date of publication for the book should not be the future date. The idea is to add custom validations.
- 14) The application should expose Web APIs which could be used by third party applications to get book details.

**Phase-II**

**A user role can perform the following tasks.**

- 15) The application should allow users to browse all the books by category.
- 16) The application should have functionality to search the books by title, author, and publisher. This should be done using Ajax such that only the search results section gets refreshed.
- 17) Users can view any single book details such as book name, category name, publisher name, author name and price.
- 18) While viewing book details users can add the book to their shopping cart.
- 19) The shopping cart should allow the user to review their cart and user can remove any item from their cart.
- 20) The application should ask users to login as soon as the users finally want to place an order (Use Membership).
- 21) If the user is not a registered user, the application should allow user to register (Use Membership).
- 22) After the user logged in or completed the registration process, the application should ask the shipping information from the user.
- 23) Finally when the user submits the order, the application should display confirmation message to the user.
- 24) The user should be able to add review for the book. These reviews should be displayed on book details view. Submitting review should be an Ajax action.

**Note: You must use exception handling code wherever required.**

## 5. JavaScript

### Agenda

- OOJS and JSON
- JQuery

Assignments
<b>Assignment # 1</b> OOJS and JQUERY assignments should be added here
<b>Assignment # 2</b> OOJS and JQUERY assignments should be added here

# Declaration by the Participant

## My Understanding

Name:
Employee ID:
DOJ:

Sr. No	Topic	Theoretical		Practical	
		Yes	No	Yes	No
1	VS 2008 IDE, C# Introduction				
2	Class and OOPs Concepts				
3	Introduction to .Net Framework				
4	Database Programming in C#				
5	Interface, Delegation, Events				
6	Advance Programming				
7	VS 2008 IDE, ASP.NET Introduction				
8	User Interface with ASP.Net				
9	State Management				
10	Managing Data in ASP.NET				
11	Debugging and Tracing ASP.NET Applications				
12	Caching in ASP.NET				
13	Controls				
14	Handling Security in ASP.NET				
15	Web Services				

## Signature of Participant

<b>For Office Use:</b>		
<b>Signature of Trainer</b>	<b>Signature of Evaluator</b>	<b>Signature of Training Head</b>

