Uka Tarsadia University

5 Years Integrated M.Sc.(IT)

DSE8-Web Development using MVC (060010508)

5th Semester

EFFECTIVE FROM June - 2017

UKA TARSADIA UNIVERSITY

5 Years Integrated M.Sc.(IT) (5TH Semester) Syllabus, 2017-2018

Course Code: 060010508 Course Title: DSE8-Web Development using MVC

Course Credits: 04 Total Hours: 48 [Lectures:04 , Tutorial:00 , Practical:00]

Prerequisites: 060010102-Database Management Systems, 060010106-Web Design and Internet Based Application.

Prerequisites By Topics: SQL, HTML

Objectives: To acquire basic understanding of dynamic web development, to design, develop and infer light weight as well as test driven development and to build web based applications through MVC architecture.

1 Introduction of Web Development [20 %]
- 1.1. Introduction
- 1.2. Web Form, Server Control, HTML Controls
- 1.3. CSS, Website Navigation, Master Page
- 1.4. State Management

2 Data Access [20 %]
- 2.1. Data Components and data set
- 2.2. Data binding
- 2.3. Rich Data Controls

3 Security [10 %]
- 3.1. Security Model
- 3.2. Form Authentication
- 3.3. Form Authentication and Roles

4 Overview / Introduction of MVC [10 %]
- 4.1. Introduction
- 4.2. MVC Architecture
- 4.3. Importance of MVC

5 Views [20 %]
- 5.1. Specifying View, Strongly Typed Views
- 5.2. View Model, Razor view engine
- 5.3. HTML Helpers
- 5.4. Input Helpers, Rendering Helpers

6 Model, Controller and Annotation [20 %]
- 6.1. Model: Scaffolding, Model binding
- 6.2. Controller's role, Implementation of Controller
- 6.3. Validation and Annotations
- 6.4. JQuery, Ajax helper

Course Outcomes: Upon completion of the course, students shall be able to

CO1: Design dynamic web pages with different state management techniques in web applications.
CO2: Apply and correlate rich data bound controls in existing web applications.
CO3: Comprehend basic structure of MVC and its usage.
CO4: Develop lightweight web form with the help of HTML helper class.
CO5: Apply data annotation, validation and AJAX to develop secure and test driven web applications.

Course Objectives and Course Outcomes Mapping:

To acquire basic understanding of dynamic web development, to design, develop and infer light weight as well as test driven development : CO1, CO2
to build web based applications through MVC architecture: CO3, CO4 and CO5

Course Units and Course Outcomes Mapping:

Unit No.	Unit	Course Outcome				
		CO1	CO2	CO3	CO4	CO5

1	Introduction of Web Development	✓				
2	Data Access		✓			
3	Security		✓			
4	Overview / Introduction of MVC			✓		
5	Views				✓	
6	Model, Controller and Annotation					✓

Programme Outcomes

PO1: **Knowledge:** Apply the fundamental knowledge of information technology along with analytical, problem-solving and designing. Also to provide communication skill for life-long learning in chosen field.

PO2: **Problem Analysis and Solution:** Identify, Analyse and provide the solution for emerging real world problems with the help of theoretical and practical understanding of tools and technologies.

PO3: **Core Competence**: To cultivate professionalism, ethics, and aesthetic to become competent leader to serve the community.

PO4: **Preparation:** To Prepare the student for higher studies, research and development and social upliftment. Also to provides skills which help students to work and recognized themselves as an individual and as a team player.

Course Units and Course Outcomes Mapping:

Programme Outcome	Course out comes				
	CO1	CO2	CO3	CO4	CO5
PO1	✓				
PO2	✓	✓			
PO3			✓	✓	✓
PO4	✓			✓	✓

- Students shall be practicing programming and developing website in .NET C# programming language using Visual Studio 2012.

Modes of Transaction (Delivery):

- Lecture method: shall be used but along with it, as and when required, discussion method would be fruitful. It shall be supplemented with various appropriate audio-visual aids.
- Activity assignment: shall be given to the student. Assignment questions should be logical and twisted

Activities/Practicum:

The following activities shall be carried out by the students

- Study of web form
- Study of MVC architecture
- Study of basic design
- Study of CSS and theme

Text Book:

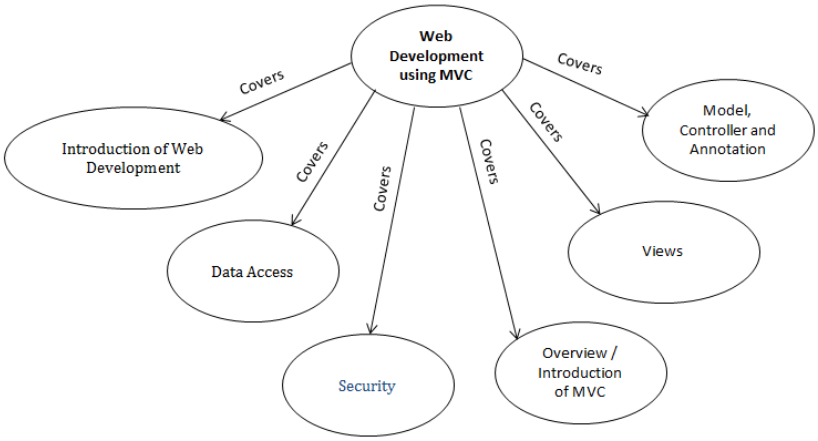
1. Jon Galloway, Phil Haack, Brad Wilson and K. Scott Allen, professional_asp.net_mvc_4, Wrox
2. Matthew MacDonald, Adam Freeman and Mario Szpuszta, Pro ASP.NET 4.5 In C# 2012, Apress
3. Martin Kalin – Java Web Services Up and Running – O'reilly

Reference Books:

1. Adam Freeman, Pro ASP.NET MVC 4, Apress.
2. Jess Chadwick, Todd Snyder, and Hrusikesh Panda, Programming ASP.NET MVC 4, O'RAILLY.
3. Jose Rolando Guay Paz, Beginning ASP.NET MVC 4, Apress.

Concept Map:

It is a hierarchical / tree based representation of all topics covered under the course. This gives direct / indirect relationship /association among topics as well as subtopics.



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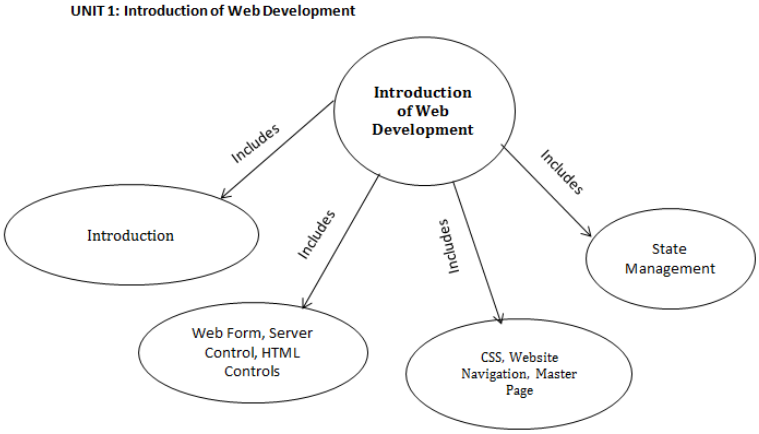

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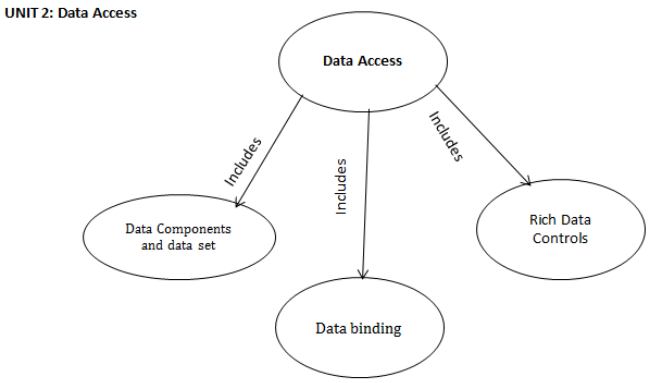

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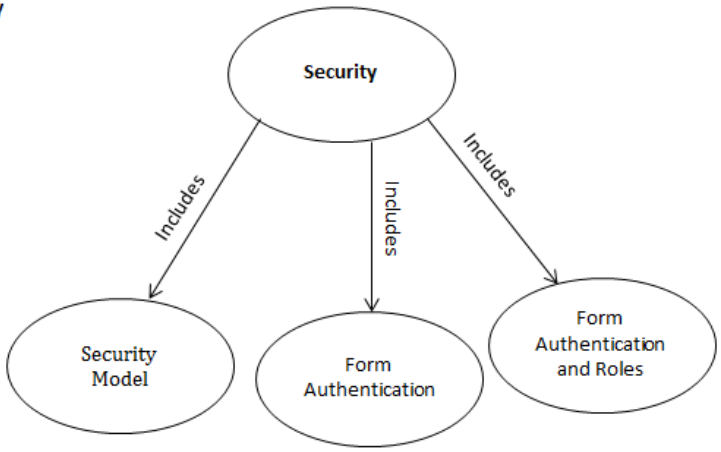
UNIT 3: Security



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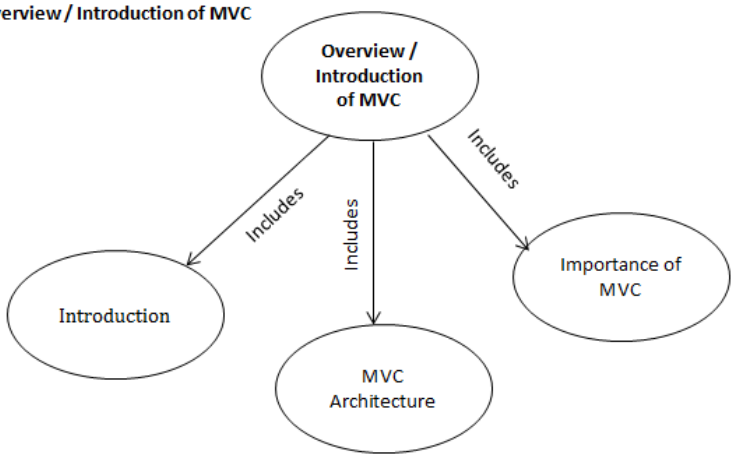
UNIT 4: Overview / Introduction of MVC



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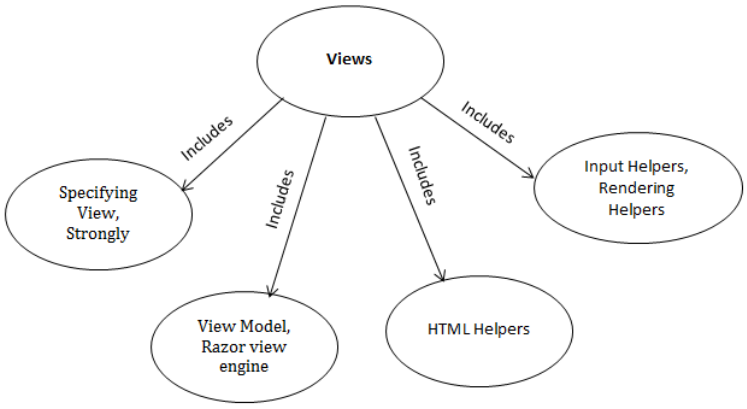
UNIT 5: Views



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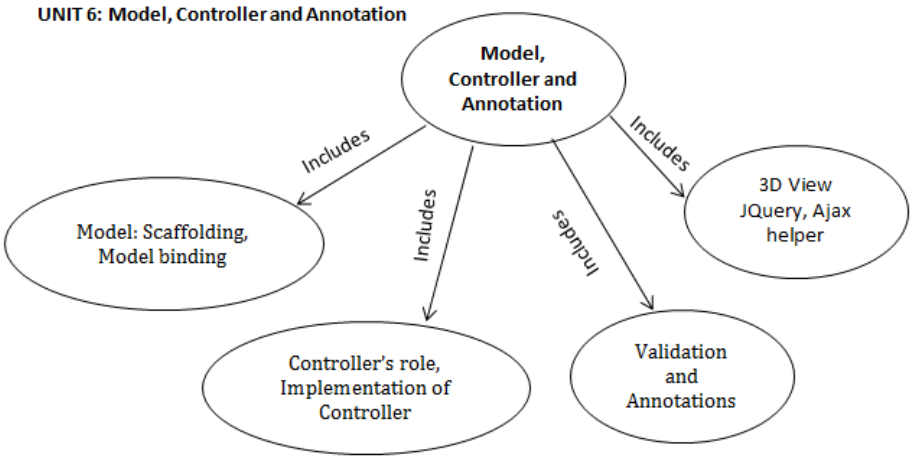

Assessment:

The weightage of CIE and University examination shall be as per the University regulations.
Composition of CIE shall be

Question Bank:

Question Bank must be prepared which consists of several types of questions namely Multiple-Choice Questions,
Fill in the blanks, Short type questions, Long type questions and Comprehensive exercises.

Academic Honesty:

Course work is assumed to be accomplished individually (otherwise stated). Any portion of submission taken directly from anywhere (like statements in assignment/report etc.) without modification must be accompanied With the properly formatted reference giving credit to the author and to the source.

UFM:

- If two or more submitted answer papers are too similar for coincidence, a penalty shall be imposed that shall usually be the same for the student who did the original as for the one copying from it
- Any ascertained fact of breaking institute policy shall be associated with one or all of the following: (i) zero marks for the work; (ii) report to the Programme Coordinator; (iii) report to the Director.

Attendance:

- Attendance means being present for the entire class session. Those arriving significant late or leaving significantly early without prior permission shall be counted as ABSENT for the entire class session.
- Concern teacher must clearly state his/her attendance policies at the first-class meeting.