QUEZON CITY UNIVERSITY
COLLEGE OF COMPUTER STUDIES
INFORMATION TECHNOLOGY

IPT102 – INTEGRATIVE PROGRAMMING AND TECHNOLOGIES

WEEK 10 LABORATORY ACTIVITY

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YEAR/SECTION: 1ST YEAR/ SBIT-3R

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SCORE	PERCENTAGE

Laboratory Activity: Integrating Model — View — Controller (MVC) using Layout & CSS ([VB.NET](VB.NET))

SOURCE CODE

Tabs: `_Layout.vbhtml` | BooksController.vb | Index.vbhtml | Site.css | Web.config | Create.vbhtml | BookRepository.vb | Book.vb

```vbhtml
1   <!DOCTYPE html>
2   <html>
3   <head>
4       <meta charset="utf-8" />
5       <meta name="viewport" content="width=device-width, initial-scale=1.0">
6       <title>@ViewBag.Title - Book Catalog</title>
7       @Styles.Render("~/Content/css")
8       @Scripts.Render("~/bundles/modernizr")
9   </head>
10  <body>
11      <nav class="navbar navbar-expand-sm navbar-toggleable-sm navbar-dark bg-dark">
12          <div class="container">
13              @Html.ActionLink("Book Catalog", "Index", "Home", New With { .area = "" }, New With { .class = "navbar-brand" })
14              <button type="button" class="navbar-toggler" data-bs-toggle="collapse" data-bs-target=".navbar-collapse" title="Toggle navigation" aria-controls="navbarSupportedContent"
15                      aria-expanded="false" aria-label="Toggle navigation">
16                  <span class="navbar-toggler-icon"></span>
17              </button>
18              <div class="collapse navbar-collapse d-sm-inline-flex justify-content-between">
19                  <ul class="navbar-nav flex-grow-1">
20                      <li>@Html.ActionLink("Home", "Index", "Home", New With { .area = "" }, New With { .class = "nav-link" })</li>
21                      <li>@Html.ActionLink("Books", "Index", "Books", New With { .area = "" }, New With { .class = "nav-link" })</li>
22                  </ul>
23              </div>
24          </div>
25      </nav>
26      <div class="container body-content">
27          @RenderBody()
28          <hr />
29          <footer>
30              <p>&copy; @DateTime.Now.Year - Book Catalog</p>
31          </footer>
32          <a href="~/Views/Shared/_Layout.vbhtml">~/Views/Shared/_Layout.vbhtml</a>
33      </div>
34
35      @Scripts.Render("~/bundles/jquery")
36      @Scripts.Render("~/bundles/bootstrap")
37      @RenderSection("scripts", required:=False)
38  </body>
39  </html>
40
```

HOME CONTROLLER

Tabs: `HomeController.vb` | _Layout.vbhtml | BooksController.vb | Index.vbhtml | Site.css | Web.config | Create.vbhtml | BookRepository.vb | Book.vb

BookCatalogVB — HomeController — Index

```vb
1   Public Class HomeController
2       Inherits System.Web.Mvc.Controller
3
4       Function Index() As ActionResult
5           Return View()
6       End Function
7
8       Function About() As ActionResult
9           ViewData("Message") = "Your application description page."
10
11          Return View()
12      End Function
13
14      Function Contact() As ActionResult
15          ViewData("Message") = "Your contact page."
16
17          Return View()
18      End Function
19  End Class
20
```

BOOK CONTROLLER

Tabs: HomeController.vb | _Layout.vbhtml | `BooksController.vb` | Index.vbhtml | Site.css | Web.config | Create.vbhtml | BookRepository.vb | Book.vb

BookCatalogVB — BooksController — Create(Book) As ActionResult

```vb
1   Imports System.Web.Mvc
2   Imports BookCatalogVB.Models
3
4   Namespace Controllers
        0 references
5       Public Class BooksController
6           Inherits Controller
7
8           ' GET: Books
            0 references
9           Function Index() As ActionResult
10              Dim books = BookRepository.GetAll()
11              Return View(books)
12          End Function
13
14          ' GET: Books/Create
            0 references
15          Function Create() As ActionResult
16              Return View()
17          End Function
18
19          ' POST: Books/Create
20          <HttpPost>
21          <ValidateAntiForgeryToken>
            0 references
22          Function Create(book As Book) As ActionResult
23              If ModelState.IsValid Then
24                  BookRepository.Add(book)
25                  Return RedirectToAction("Index")
26              End If
27              Return View(book)
28          End Function
29      End Class
30  End Namespace
31
```

MODEL BOOKS

```vb
Namespace Models
    Public Class Book
        Public Property Id As Integer
        Public Property Title As String
        Public Property Author As String
        Public Property YearPublished As Integer
    End Class
End Namespace
```

CREATE VEWS

```vbhtml
@ModelType BookCatalogVB.Models.Book
@Code
    ViewData("Title") = "Create New Book"
End Code

<h2>Create New Book</h2>

@Using Html.BeginForm()
    @Html.AntiForgeryToken()

    @<div class="form-horizontal">
        @Html.ValidationSummary(True, "", New With {.class = "text-danger"})

        <div class="form-group">
            @Html.LabelFor(Function(model) model.Title, htmlAttributes:=New With {.class = "control-label col-md-2"})
            <div class="col-md-10">
                @Html.EditorFor(Function(model) model.Title, New With {.htmlAttributes = New With {.class = "form-control"}})
                @Html.ValidationMessageFor(Function(model) model.Title, "", New With {.class = "text-danger"})
            </div>
        </div>

        <div class="form-group">
            @Html.LabelFor(Function(model) model.Author, htmlAttributes:=New With {.class = "control-label col-md-2"})
            <div class="col-md-10">
                @Html.EditorFor(Function(model) model.Author, New With {.htmlAttributes = New With {.class = "form-control"}})
                @Html.ValidationMessageFor(Function(model) model.Author, "", New With {.class = "text-danger"})
            </div>
        </div>

        <div class="form-group">
            @Html.LabelFor(Function(model) model.YearPublished, htmlAttributes:=New With {.class = "control-label col-md-2"})
            <div class="col-md-10">
                @Html.EditorFor(Function(model) model.YearPublished, New With {.htmlAttributes = New With {.class = "form-control", .type = "number", .min = "1900", .max = DateTime.Now.Year}})
                @Html.ValidationMessageFor(Function(model) model.YearPublished, "", New With {.class = "text-danger"})
            </div>
        </div>

        <div class="form-group">
            <div class="col-md-offset-2 col-md-10">
                <input type="submit" value="Create" class="btn btn-primary" />
                @Html.ActionLink("Back to List", "Index", Nothing, New With {.class = "btn btn-default"})
            </div>
        </div>
    </div>
End Using

@Section Scripts
    @Scripts.Render("~/bundles/jqueryval")
```