Easy Test! Easy Pass!

Vendor: Microsoft

Exam Code: 70-486

Exam Name: Developing ASP.NET MVC 4 Web Applications

Version: Demo

Topic 1, Olympic Marathon

Background
You are developing an ASP.NET MVC application in Visual Studio 2012 that will be used by Olympic marathon runners to log data about training runs.

Business Requirements
The application stores date, distance, and duration information about a user's training runs. The user can view, insert, edit, and delete records.

The application must be optimized for accessibility.

All times must be displayed in the user's local time.

Technical Requirements
Data Access:
Database access is handled by a public class named RunnerLog.DataAccess.RunnerLogDb.
All data retrieval must be done by HTTP GET and all data updates must be done by HTTP POST.

Layout:
All pages in the application use a master layout file named \Views\Shared_Layout.cshtml.

Models:
The application uses the \Models\LogModel.cs model.

Views:
All views in the application use the Razor view engine.

Four views located in \Views\RunLog are named:

- _CalculatePace.cshtml
- EditLog.cshtml
- GetLog.cshtml
- InsertLog.cshtml

The application also contains a \Views\Home\Index.cshtml view.

Controllers:
The application contains a \Controllers\RunLogController.cs controller.

Images:
A stopwatch.png image is located in the \Images folder.

Videos:
A map of a runner's path is available when a user views a run log. The map is implemented as an Adobe Flash application and video. The browser should display the video natively if possible, using H264, Ogg, or WebM formats, in that order. If the video cannot be displayed, then the Flash application should be used.

Security:
You have the following security requirements:

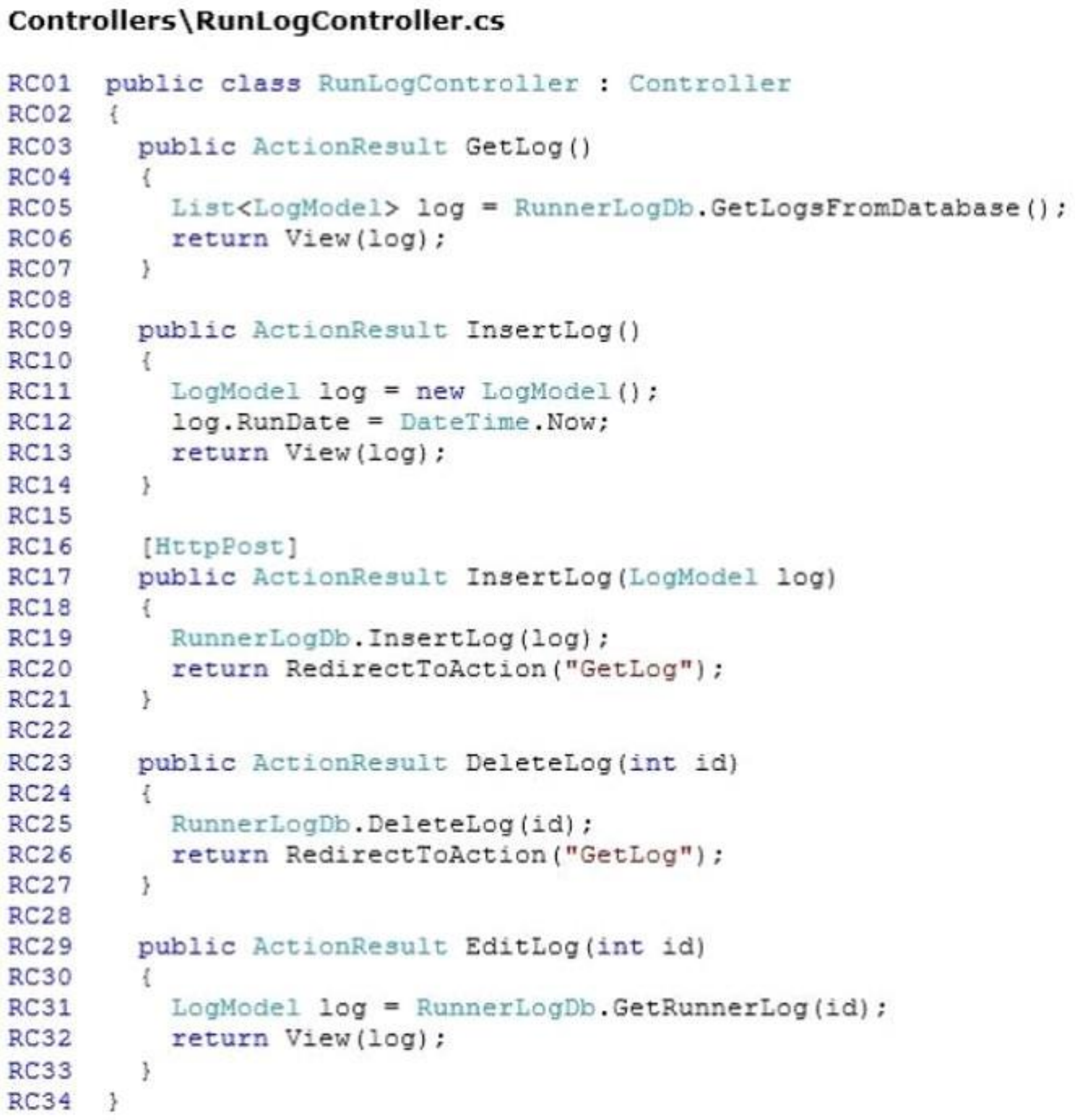
- The application is configured to use forms authentication.
- Users must be logged on to insert runner data.

- Users must be members of the Admin role to edit or delete runner data.
- There are no security requirements for viewing runner data.
- You need to protect the application against cross-site request forgery.
- Passwords are hashed by using the SHA1 algorithm.

RunnerLog.Providers.RunLogRoleProvider.es contains a custom role provider.

Relevant portions of the application files follow. (Line numbers are included for reference only.)

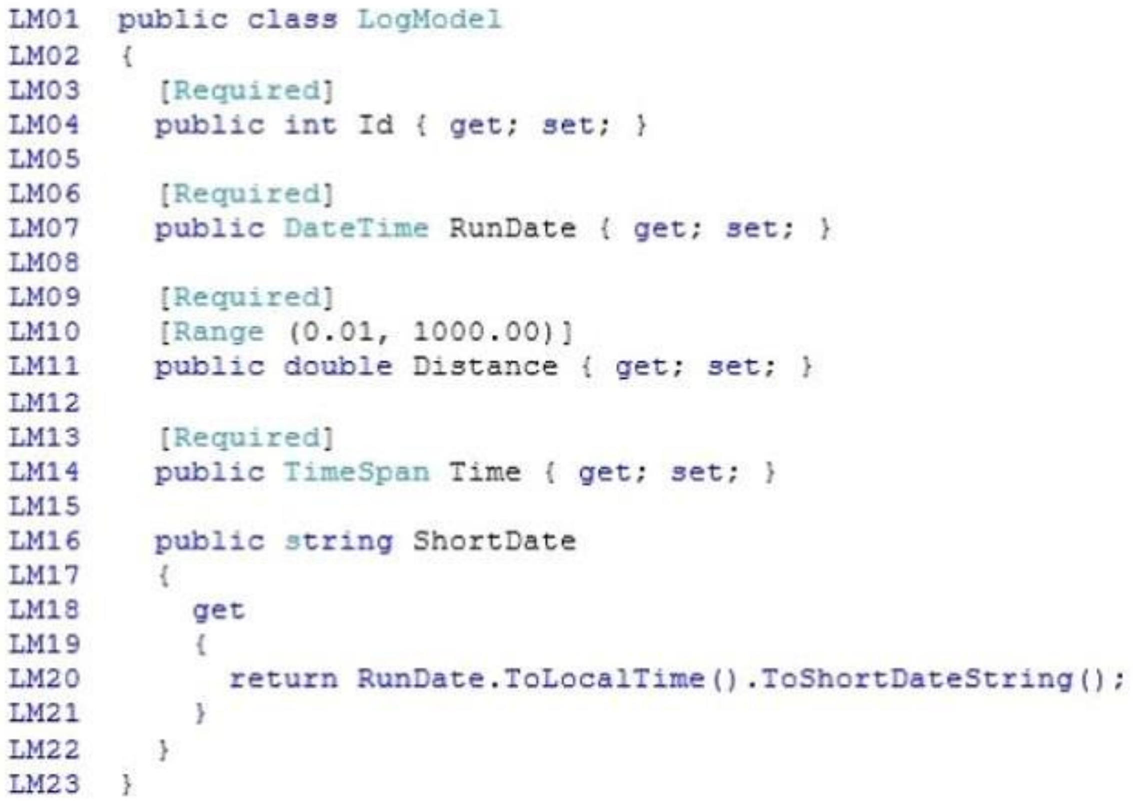
Application Structure



Controllers\RunLogController.cs

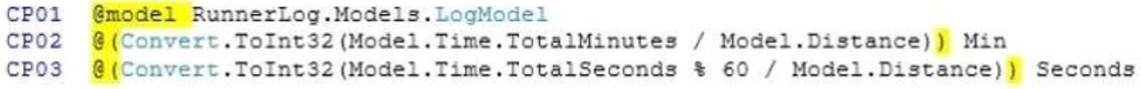
```
RC01  public class RunLogController : Controller
RC02  {
RC03    public ActionResult GetLog()
RC04    {
RC05      List<LogModel> log = RunnerLogDb.GetLogsFromDatabase();
RC06      return View(log);
RC07    }
RC08
RC09    public ActionResult InsertLog()
RC10    {
RC11      LogModel log = new LogModel();
RC12      log.RunDate = DateTime.Now;
RC13      return View(log);
RC14    }
RC15
RC16    [HttpPost]
RC17    public ActionResult InsertLog(LogModel log)
RC18    {
RC19      RunnerLogDb.InsertLog(log);
RC20      return RedirectToAction("GetLog");
RC21    }
RC22
RC23    public ActionResult DeleteLog(int id)
RC24    {
RC25      RunnerLogDb.DeleteLog(id);
RC26      return RedirectToAction("GetLog");
RC27    }
RC28
RC29    public ActionResult EditLog(int id)
RC30    {
RC31      LogModel log = RunnerLogDb.GetRunnerLog(id);
RC32      return View(log);
RC33    }
RC34  }
```

Models\LogModel.cs

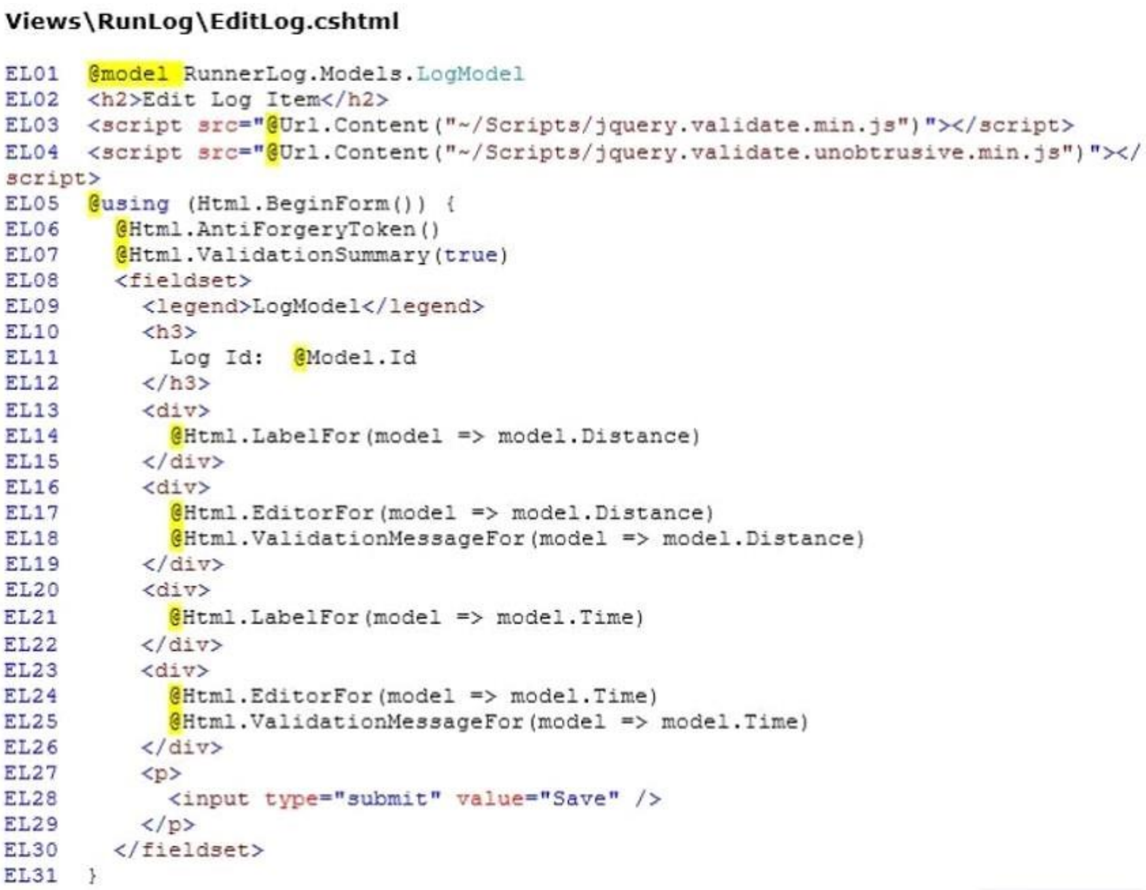


```
public class LogModel
{
  [Required]
  public int Id { get; set; }

  [Required]
  public DateTime RunDate { get; set; }

  [Required]
  [Range (0.01, 1000.00)]
  public double Distance { get; set; }

  [Required]
  public TimeSpan Time { get; set; }

  public string ShortDate
  {
    get
    {
      return RunDate.ToLocalTime().ToShortDateString();
    }
  }
}
```

Views\RunLog_CalculatePace.cshtml

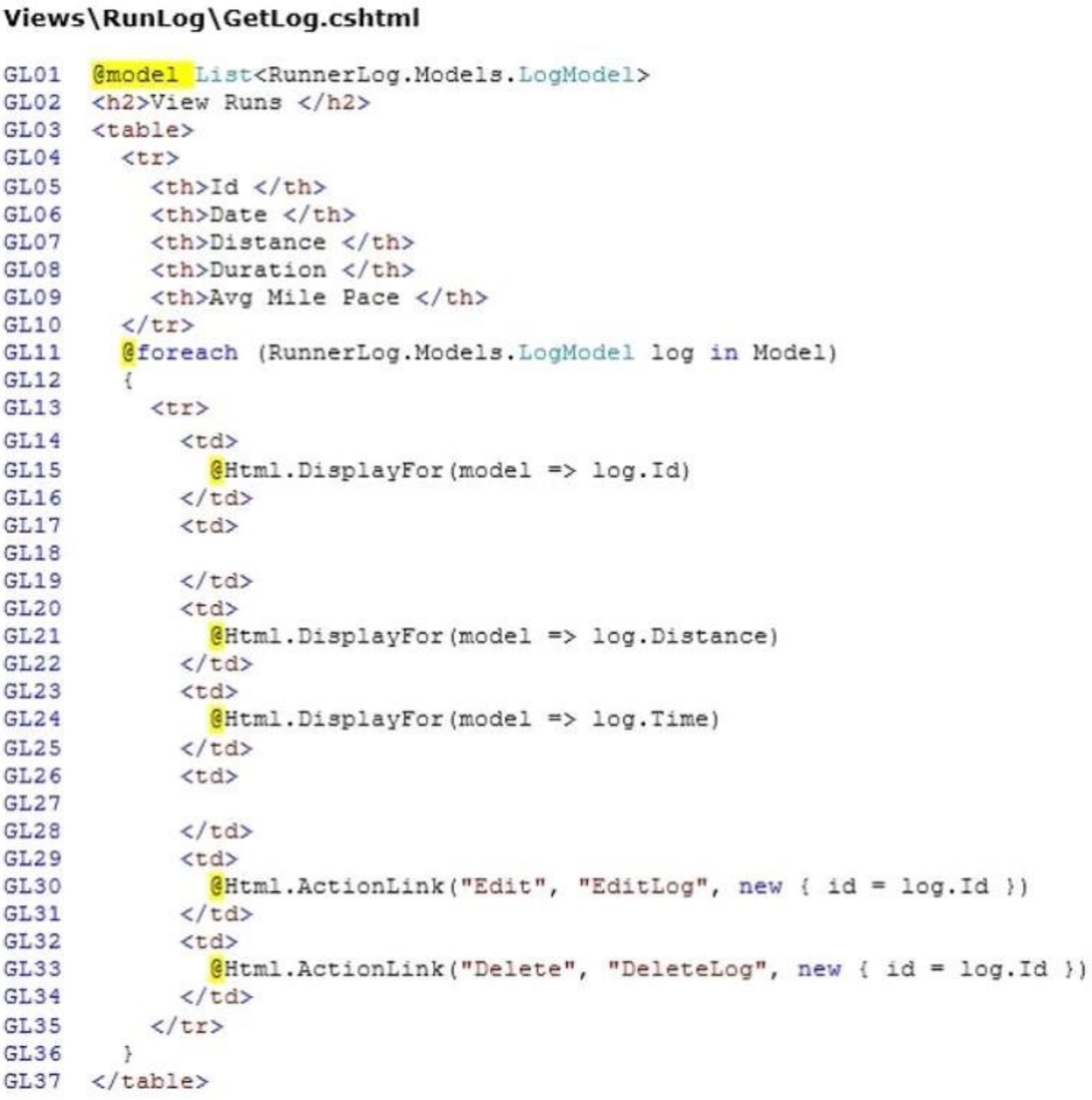


```
@model RunnerLog.Models.LogModel
@(Convert.ToInt32(Model.Time.TotalMinutes / Model.Distance)) Min
@(Convert.ToInt32(Model.Time.TotalSeconds % 60 / Model.Distance)) Seconds
```



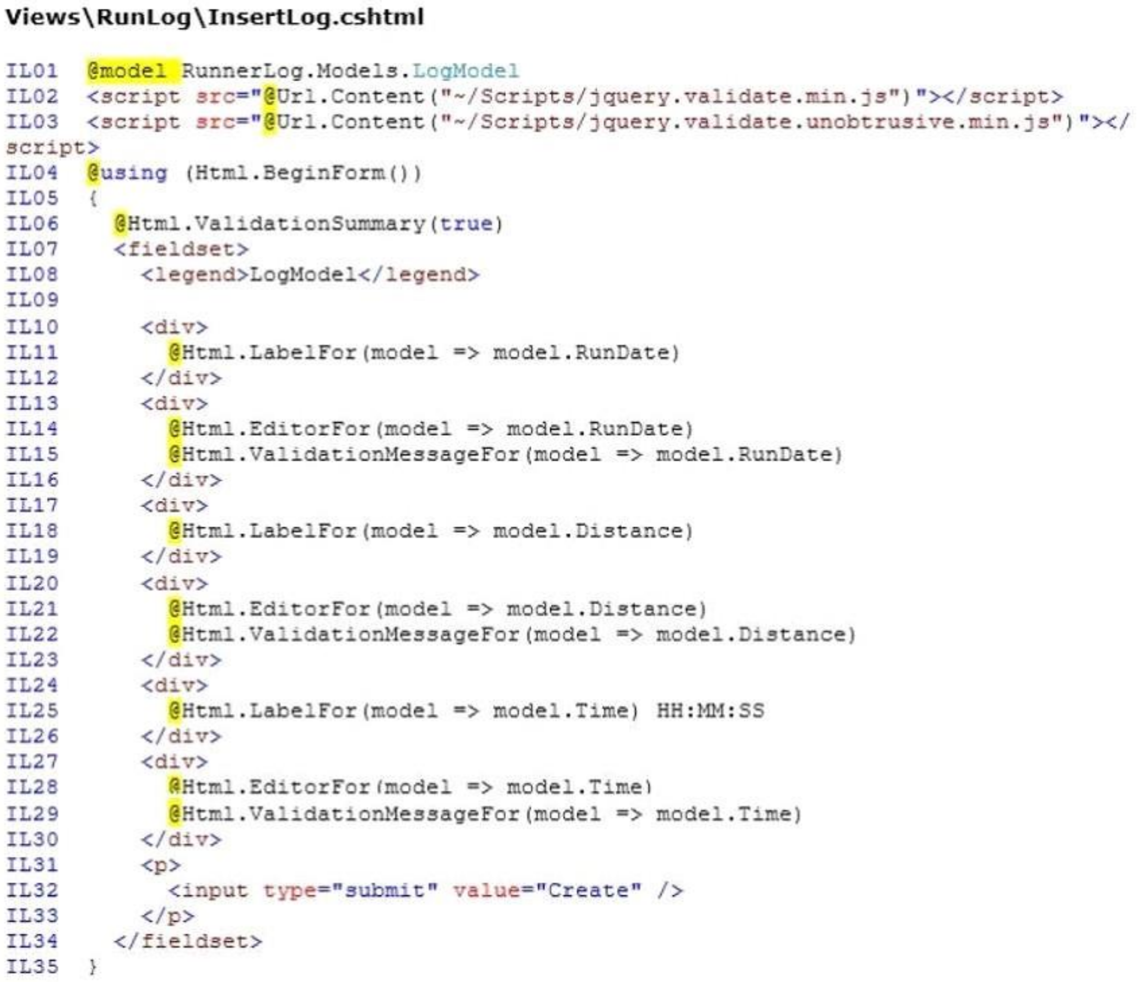
Views\RunLog\EditLog.cshtml

```
EL01  @model RunnerLog.Models.LogModel
EL02  <h2>Edit Log Item</h2>
EL03  <script src="@Url.Content("~/Scripts/jquery.validate.min.js")"></script>
EL04  <script src="@Url.Content("~/Scripts/jquery.validate.unobtrusive.min.js")"></
script>
EL05  @using (Html.BeginForm()) {
EL06    @Html.AntiForgeryToken()
EL07    @Html.ValidationSummary(true)
EL08    <fieldset>
EL09      <legend>LogModel</legend>
EL10      <h3>
EL11        Log Id:  @Model.Id
EL12      </h3>
EL13      <div>
EL14        @Html.LabelFor(model => model.Distance)
EL15      </div>
EL16      <div>
EL17        @Html.EditorFor(model => model.Distance)
EL18        @Html.ValidationMessageFor(model => model.Distance)
EL19      </div>
EL20      <div>
EL21        @Html.LabelFor(model => model.Time)
EL22      </div>
EL23      <div>
EL24        @Html.EditorFor(model => model.Time)
EL25        @Html.ValidationMessageFor(model => model.Time)
EL26      </div>
EL27      <p>
EL28        <input type="submit" value="Save" />
EL29      </p>
EL30    </fieldset>
EL31  }
```



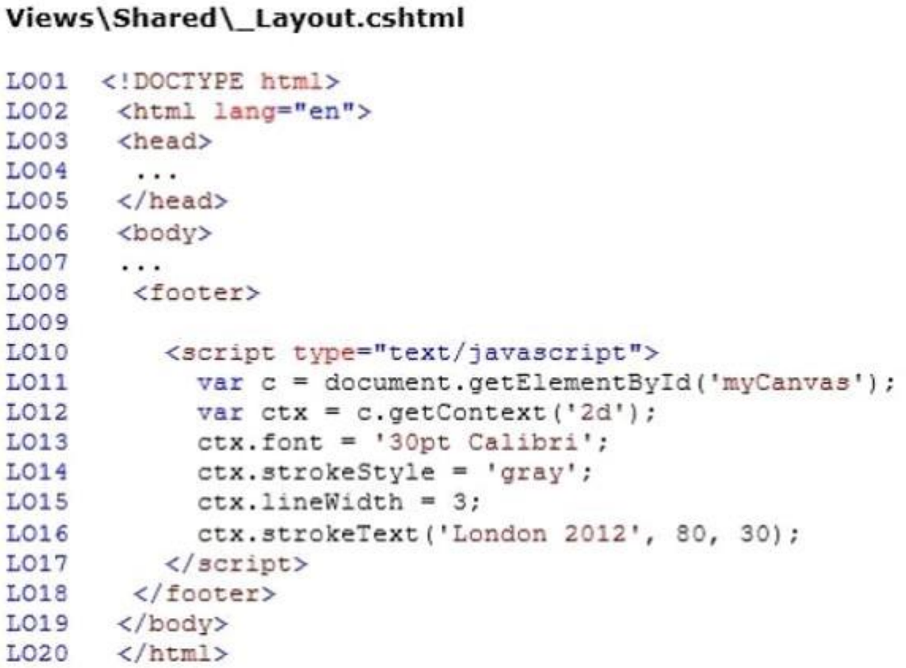
Views\RunLog\GetLog.cshtml

```
GL01  @model List<RunnerLog.Models.LogModel>
GL02  <h2>View Runs </h2>
GL03  <table>
GL04    <tr>
GL05      <th>Id </th>
GL06      <th>Date </th>
GL07      <th>Distance </th>
GL08      <th>Duration </th>
GL09      <th>Avg Mile Pace </th>
GL10    </tr>
GL11    @foreach (RunnerLog.Models.LogModel log in Model)
GL12    {
GL13      <tr>
GL14        <td>
GL15          @Html.DisplayFor(model => log.Id)
GL16        </td>
GL17        <td>
GL18
GL19        </td>
GL20        <td>
GL21          @Html.DisplayFor(model => log.Distance)
GL22        </td>
GL23        <td>
GL24          @Html.DisplayFor(model => log.Time)
GL25        </td>
GL26        <td>
GL27
GL28        </td>
GL29        <td>
GL30          @Html.ActionLink("Edit", "EditLog", new { id = log.Id })
GL31        </td>
GL32        <td>
GL33          @Html.ActionLink("Delete", "DeleteLog", new { id = log.Id })
GL34        </td>
GL35      </tr>
GL36    }
GL37  </table>
```



Views\RunLog\InsertLog.cshtml

```
IL01  @model RunnerLog.Models.LogModel
IL02  <script src="@Url.Content("~/Scripts/jquery.validate.min.js")"></script>
IL03  <script src="@Url.Content("~/Scripts/jquery.validate.unobtrusive.min.js")"></
script>
IL04  @using (Html.BeginForm())
IL05  {
IL06    @Html.ValidationSummary(true)
IL07    <fieldset>
IL08      <legend>LogModel</legend>
IL09
IL10      <div>
IL11        @Html.LabelFor(model => model.RunDate)
IL12      </div>
IL13      <div>
IL14        @Html.EditorFor(model => model.RunDate)
IL15        @Html.ValidationMessageFor(model => model.RunDate)
IL16      </div>
IL17      <div>
IL18        @Html.LabelFor(model => model.Distance)
IL19      </div>
IL20      <div>
IL21        @Html.EditorFor(model => model.Distance)
IL22        @Html.ValidationMessageFor(model => model.Distance)
IL23      </div>
IL24      <div>
IL25        @Html.LabelFor(model => model.Time) HH:MM:SS
IL26      </div>
IL27      <div>
IL28        @Html.EditorFor(model => model.Time)
IL29        @Html.ValidationMessageFor(model => model.Time)
IL30      </div>
IL31      <p>
IL32        <input type="submit" value="Create" />
IL33      </p>
IL34    </fieldset>
IL35  }
```



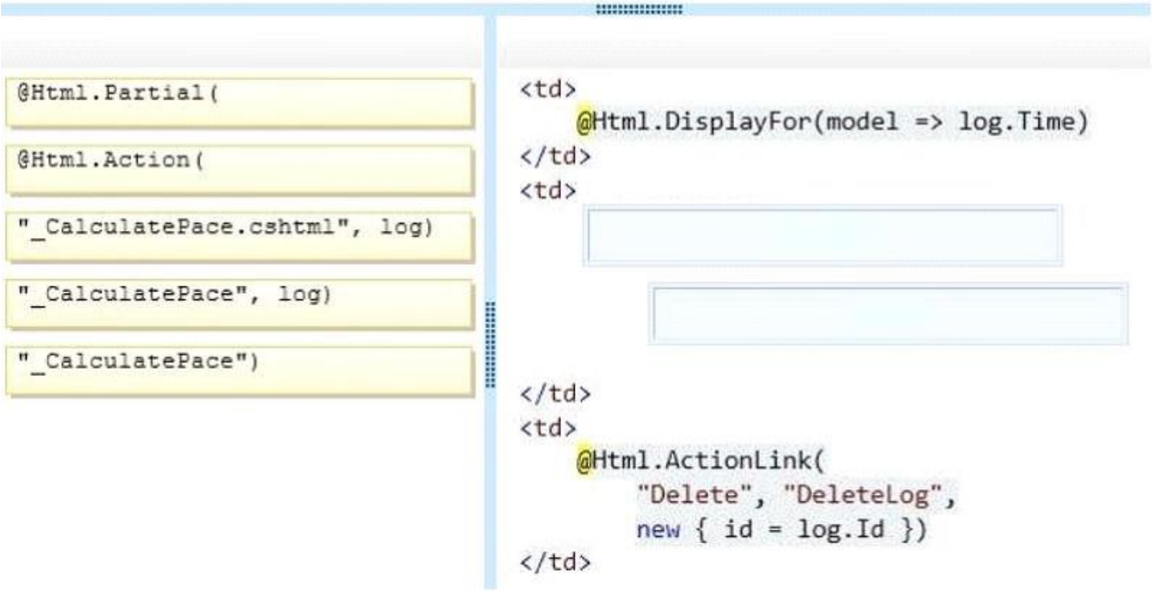
Views\Shared_Layout.cshtml

```
LO01  <!DOCTYPE html>
LO02   <html lang="en">
LO03   <head>
LO04    ...
LO05   </head>
LO06   <body>
LO07   ...
LO08    <footer>
LO09
LO10      <script type="text/javascript">
LO11        var c = document.getElementById('myCanvas');
LO12        var ctx = c.getContext('2d');
LO13        ctx.font = '30pt Calibri';
LO14        ctx.strokeStyle = 'gray';
LO15        ctx.lineWidth = 3;
LO16        ctx.strokeText('London 2012', 80, 30);
LO17      </script>
LO18    </footer>
LO19   </body>
LO20   </html>
```

QUESTION 1
DRAG DROP
You need to implement the Views\RunLog_CalculatePace.cshtml partial view from Views\Runlog \GetLog.cshtml to display the runner's average mile pace.

How should you implement the view?

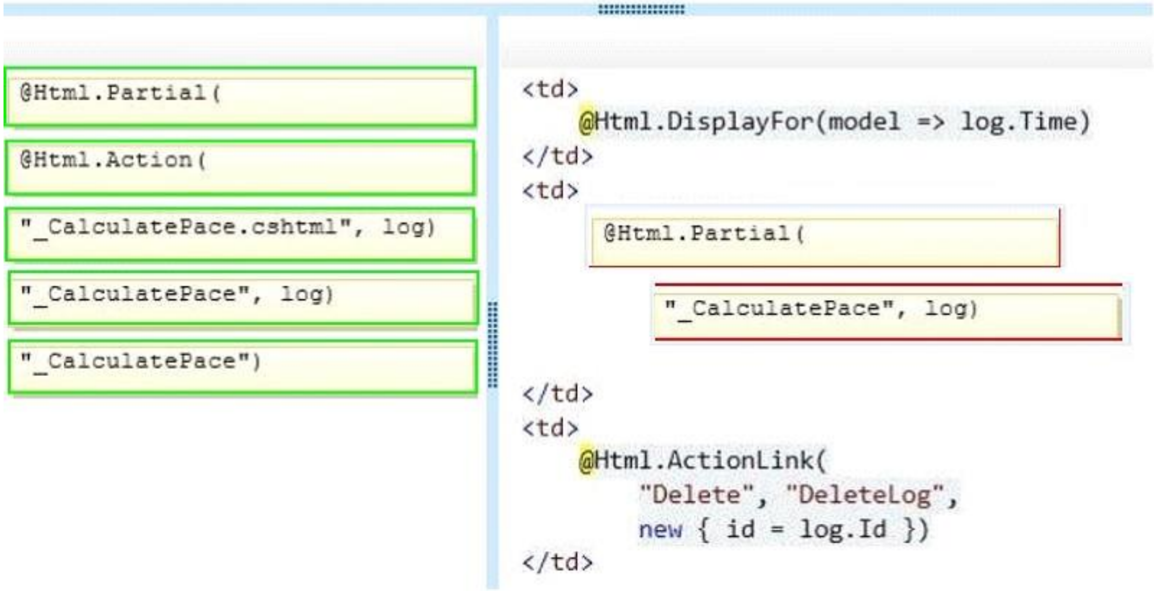
To answer, drag the appropriate code segments to the correct location or locations. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.



```
@Html.Partial(
@Html.Action(
"_CalculatePace.cshtml", log)
"_CalculatePace", log)
"_CalculatePace")
```

```
<td>
    @Html.DisplayFor(model => log.Time)
</td>
<td>
    
    
</td>
<td>
    @Html.ActionLink(
        "Delete", "DeleteLog",
        new { id = log.Id })
</td>
```

Correct Answer:



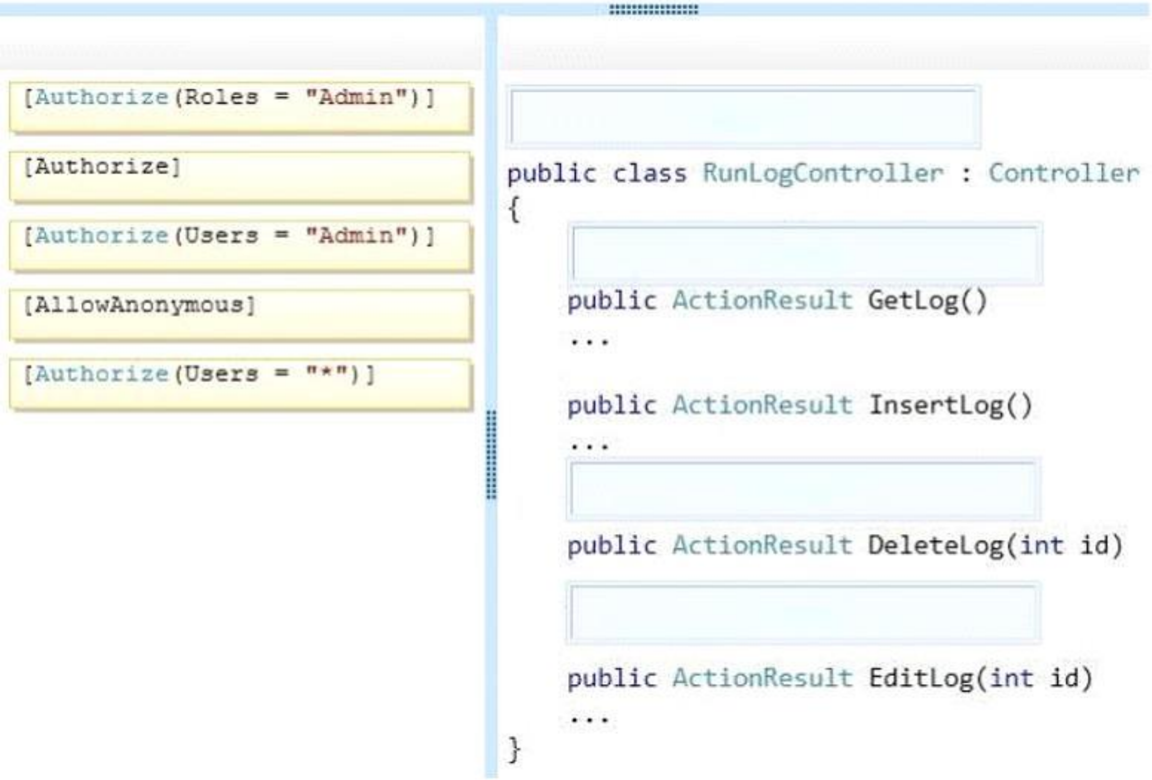
```
@Html.Partial(
@Html.Action(
"_CalculatePace.cshtml", log)
"_CalculatePace", log)
"_CalculatePace")
```

```
<td>
    @Html.DisplayFor(model => log.Time)
</td>
<td>
    @Html.Partial(
        "_CalculatePace", log)
</td>
<td>
    @Html.ActionLink(
        "Delete", "DeleteLog",
        new { id = log.Id })
</td>
```

QUESTION 2
DRAG DROP
You need to implement security according to the business requirements.

How should you modify RunLogController?

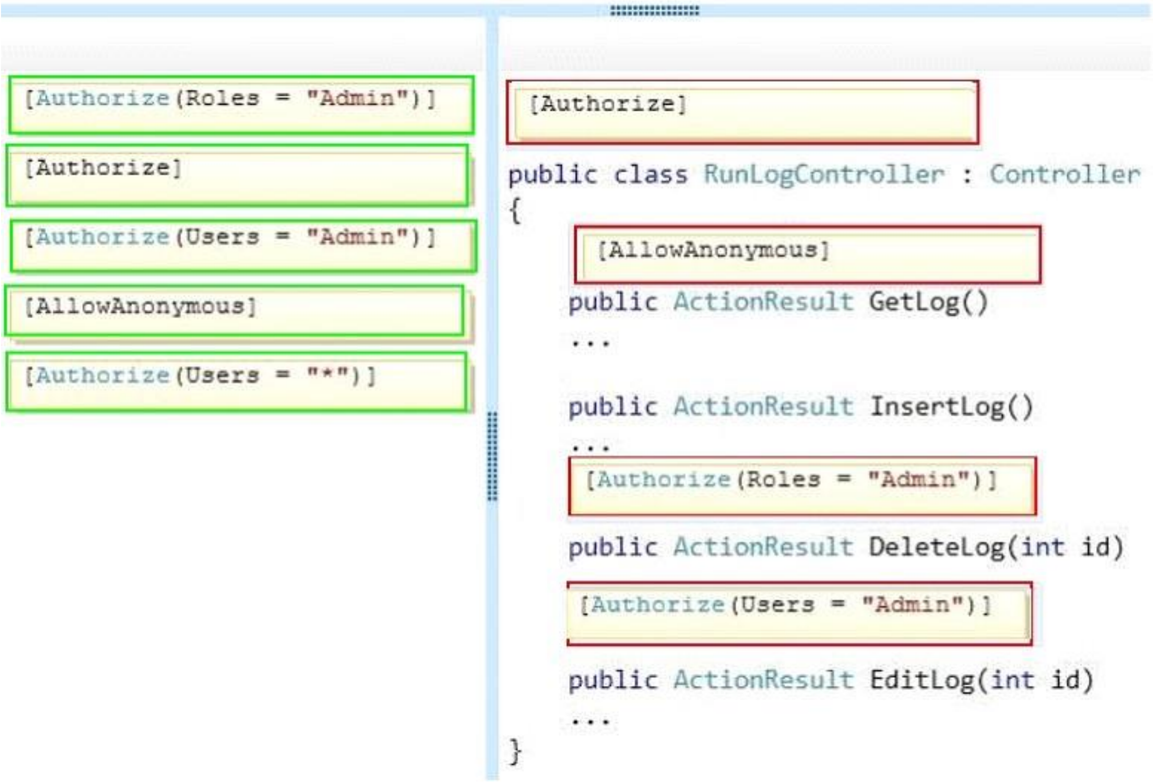
To answer, drag the appropriate code segment to the correct location or locations. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.



```
[Authorize(Roles = "Admin")]
[Authorize]
[Authorize(Users = "Admin")]
[AllowAnonymous]
[Authorize(Users = "*")]
```

```
public class RunLogController : Controller
{
    public ActionResult GetLog()
    ...

    public ActionResult InsertLog()
    ...

    public ActionResult DeleteLog(int id)

    public ActionResult EditLog(int id)
    ...
}
```

Correct Answer:



```
[Authorize(Roles = "Admin")]
[Authorize]
[Authorize(Users = "Admin")]
[AllowAnonymous]
[Authorize(Users = "*")]
```

```
[Authorize]
public class RunLogController : Controller
{
    [AllowAnonymous]
    public ActionResult GetLog()
    ...

    public ActionResult InsertLog()
    ...
    [Authorize(Roles = "Admin")]
    public ActionResult DeleteLog(int id)
    [Authorize(Users = "Admin")]
    public ActionResult EditLog(int id)
    ...
}
```

QUESTION 3

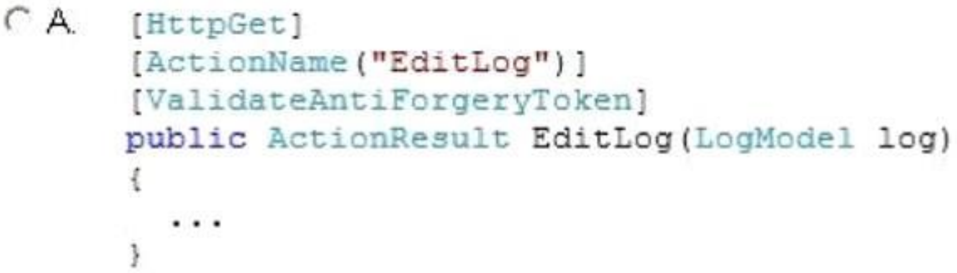
You need to make the "Distance" header of the table bold in the Views/RunLog/GetLog.cshtml view. Which code segment should you use?

A. table>tr{ font-weight: bold; }
B. table>th:last-child{ font-weight: bold; }
C. table+first-child{ font-weight: bold; }
D. table>tr>th:nth-child (2) { font-weight: bold; }

Correct Answer: D

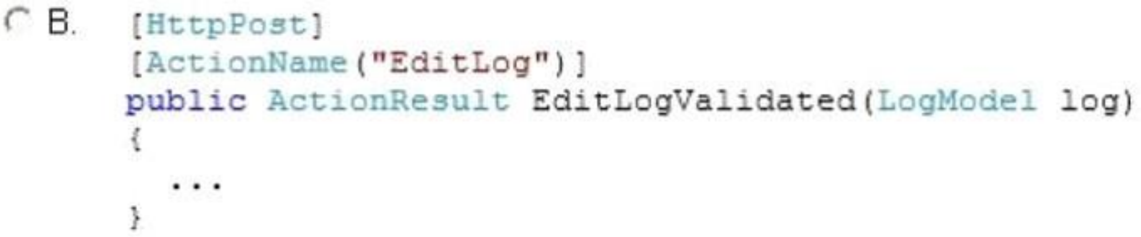
QUESTION 4

You need to extend the edit functionality of RunLogController. Which code segment should you use?



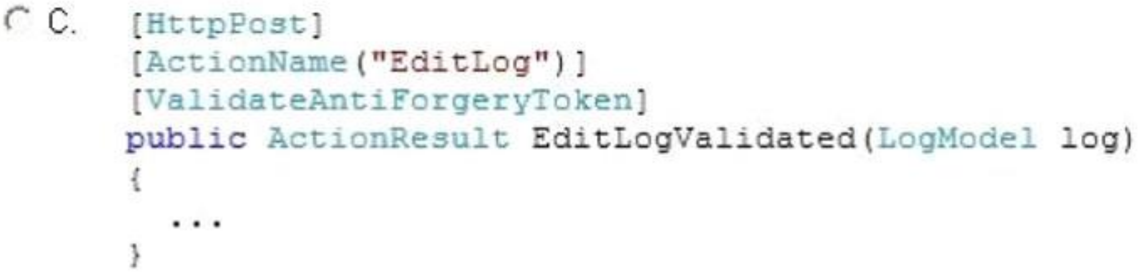
○ A.

```
[HttpGet]
[ActionName("EditLog")]
[ValidateAntiForgeryToken]
public ActionResult EditLog(LogModel log)
{
   ...
}
```



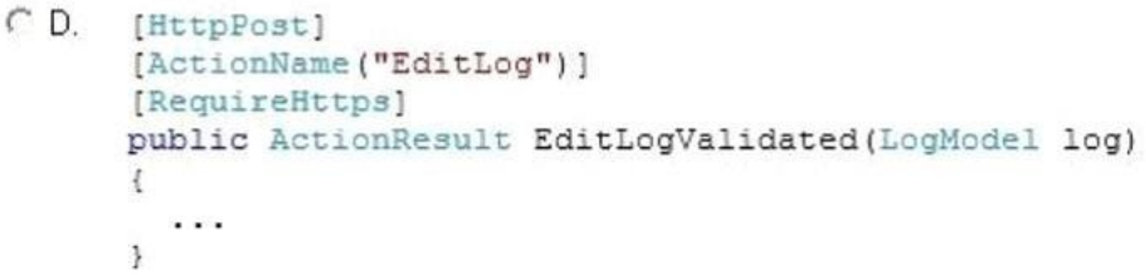
○ B.

```
[HttpPost]
[ActionName("EditLog")]
public ActionResult EditLogValidated(LogModel log)
{
   ...
}
```



○ C.

```
[HttpPost]
[ActionName("EditLog")]
[ValidateAntiForgeryToken]
public ActionResult EditLogValidated(LogModel log)
{
   ...
}
```



○ D.

```
[HttpPost]
[ActionName("EditLog")]
[RequireHttps]
public ActionResult EditLogValidated(LogModel log)
{
   ...
}
```

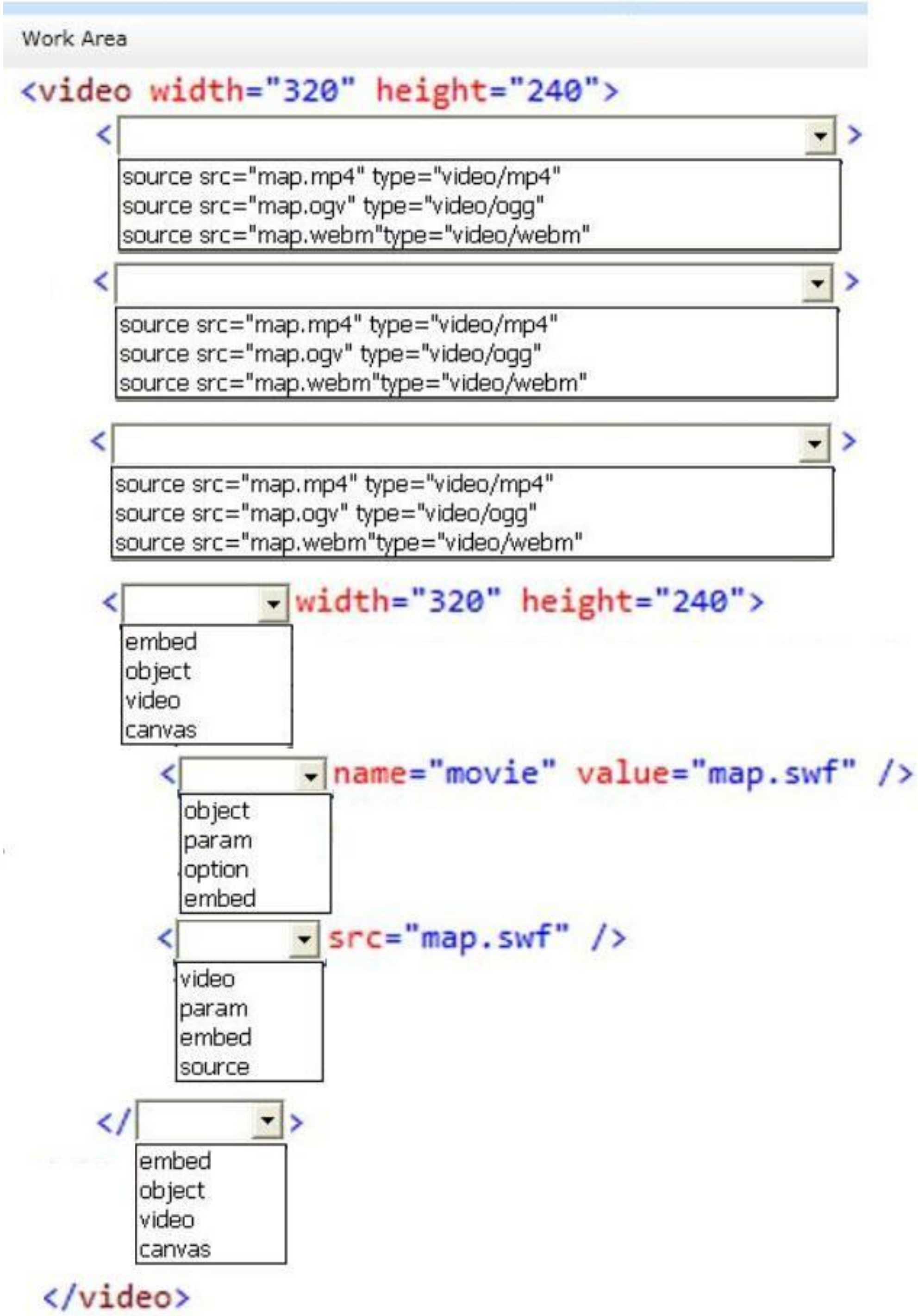
A. Option A
B. Option B
C. Option C
D. Option D

Correct Answer: C

QUESTION 5
HOTSPOT
You need to implement the map of the runners' paths.

How should you build the video viewer?

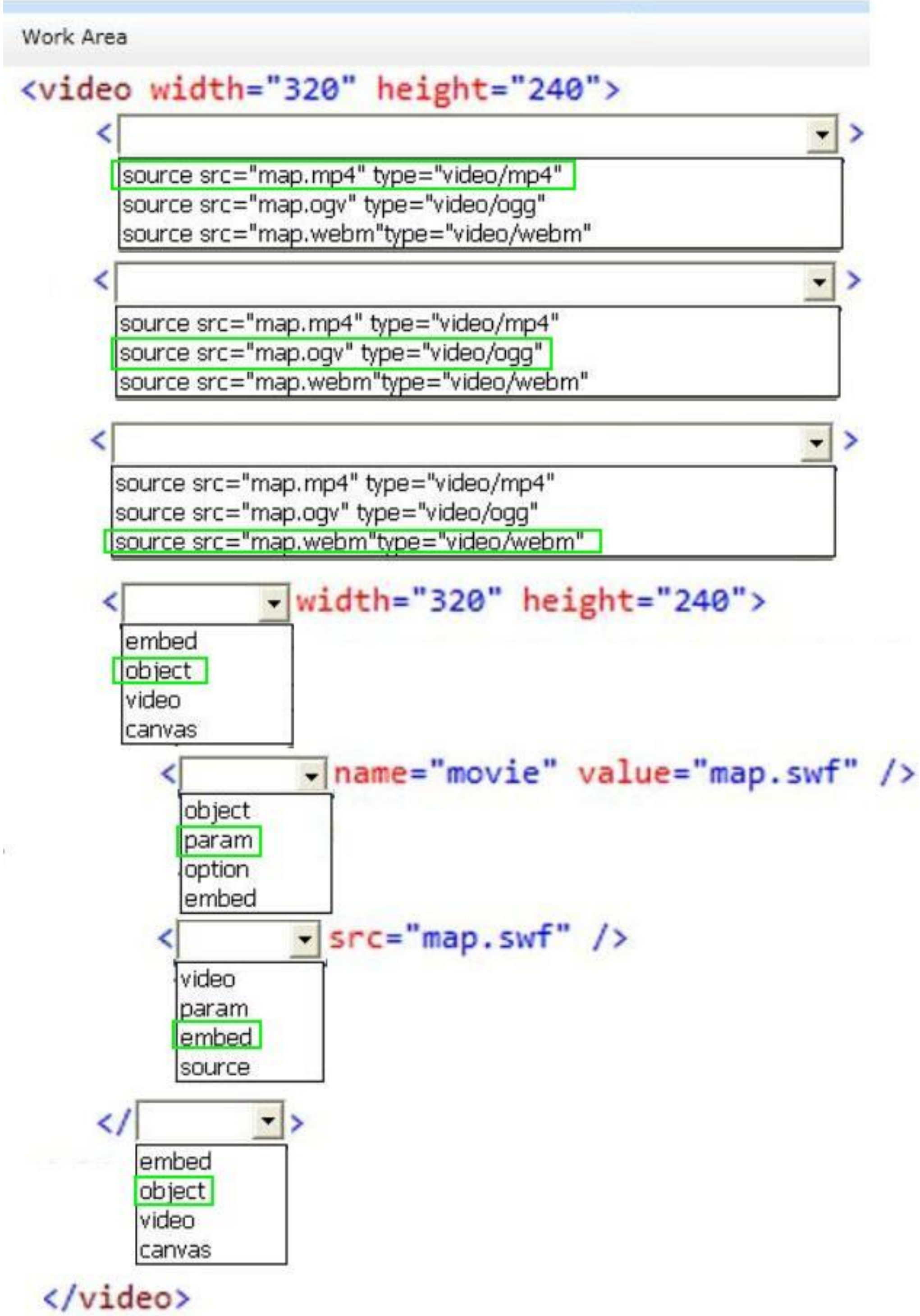
To answer, select the appropriate options in the answer area.



Work Area

```
<video width="320" height="240">
    <                                        >
     source src="map.mp4" type="video/mp4"
     source src="map.ogv" type="video/ogg"
     source src="map.webm"type="video/webm"
    <                                        >
     source src="map.mp4" type="video/mp4"
     source src="map.ogv" type="video/ogg"
     source src="map.webm"type="video/webm"
    <                                        >
     source src="map.mp4" type="video/mp4"
     source src="map.ogv" type="video/ogg"
     source src="map.webm"type="video/webm"
    <          width="320" height="240">
     embed
     object
     video
     canvas
        <          name="movie" value="map.swf" />
         object
         param
         option
         embed
        <          src="map.swf" />
         video
         param
         embed
         source
    </          >
     embed
     object
     video
     canvas
</video>
```

Correct Answer:



Work Area

<video width="320" height="240">

< >

[✓ source src="map.mp4" type="video/mp4"]
source src="map.ogv" type="video/ogg"
source src="map.webm"type="video/webm"

< >

source src="map.mp4" type="video/mp4"
[✓ source src="map.ogv" type="video/ogg"]
source src="map.webm"type="video/webm"

< >

source src="map.mp4" type="video/mp4"
source src="map.ogv" type="video/ogg"
[✓ source src="map.webm"type="video/webm"]

< width="320" height="240">

embed
[✓ object]
video
canvas

< name="movie" value="map.swf" />

object
[✓ param]
option
embed

< src="map.swf" />

video
param
[✓ embed]
source

</ >

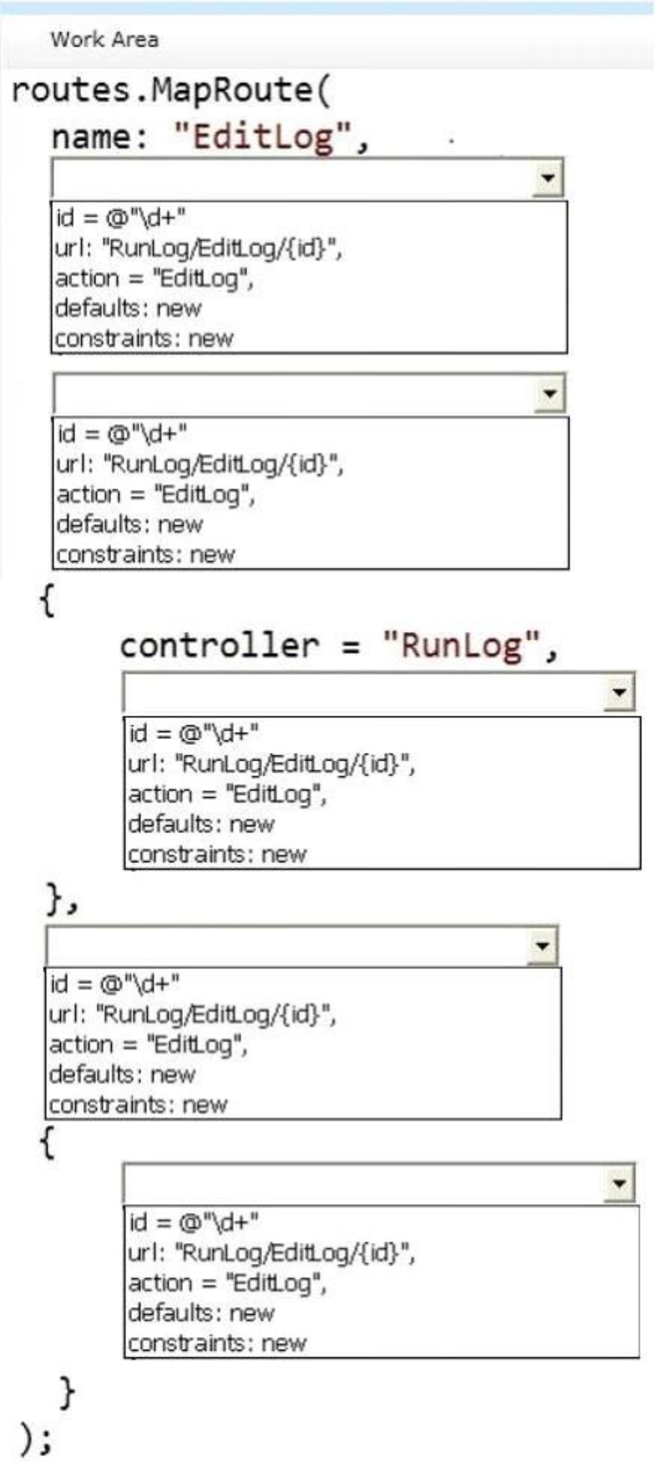
embed
[✓ object]
video
canvas

</video>

QUESTION 6
HOTSPOT
You need to ensure that only valid parameters are passed to the EditLog action.

How should you build the route?

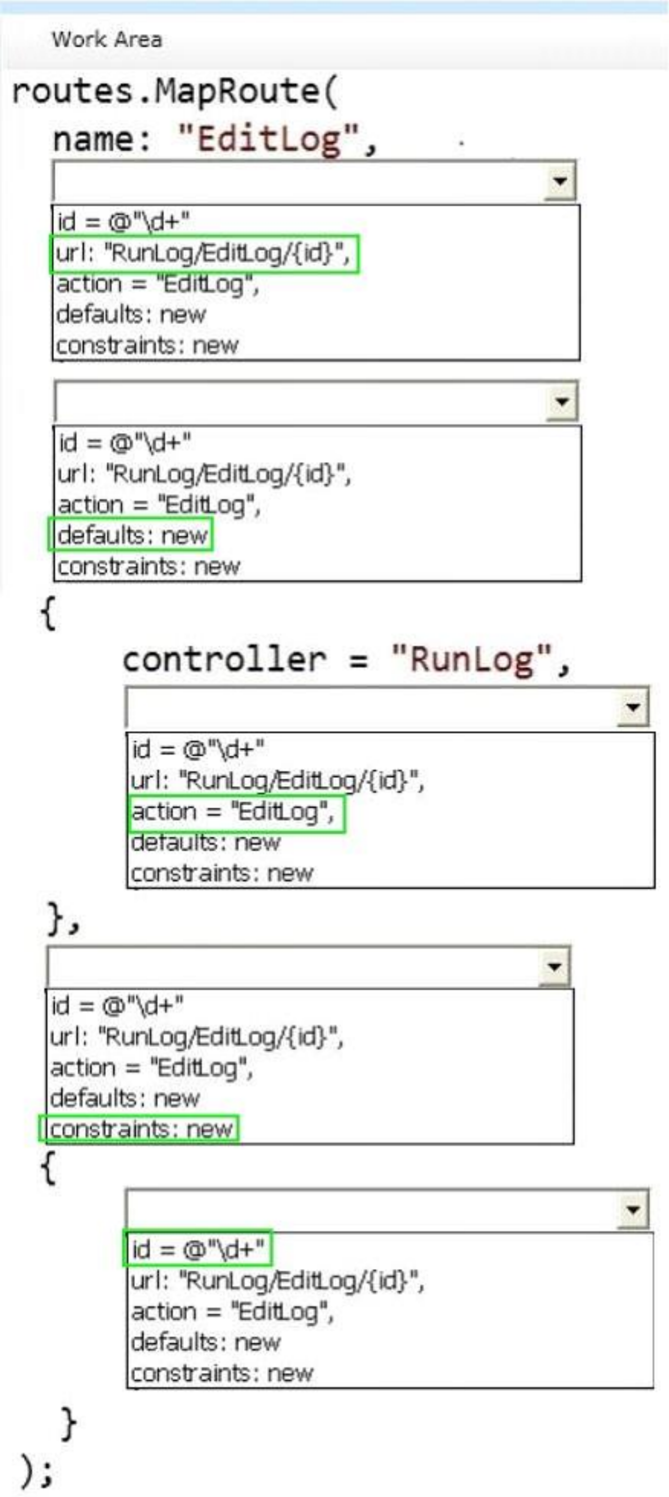
To answer, select the appropriate options in the answer area.



Work Area

```
routes.MapRoute(
   name: "EditLog",
   [                                    ▾]
   id = @"\d+"
   url: "RunLog/EditLog/{id}",
   action = "EditLog",
   defaults: new
   constraints: new

   [                                    ▾]
   id = @"\d+"
   url: "RunLog/EditLog/{id}",
   action = "EditLog",
   defaults: new
   constraints: new
  {
       controller = "RunLog",
       [                                    ▾]
       id = @"\d+"
       url: "RunLog/EditLog/{id}",
       action = "EditLog",
       defaults: new
       constraints: new
  },
   [                                    ▾]
   id = @"\d+"
   url: "RunLog/EditLog/{id}",
   action = "EditLog",
   defaults: new
   constraints: new
  {
       [                                    ▾]
       id = @"\d+"
       url: "RunLog/EditLog/{id}",
       action = "EditLog",
       defaults: new
       constraints: new
   }
);
```

Correct Answer:



Work Area

```
routes.MapRoute(
   name: "EditLog",
```

- id = @"\d+"
- [✓ url: "RunLog/EditLog/{id}",]
- action = "EditLog",
- defaults: new
- constraints: new

- id = @"\d+"
- url: "RunLog/EditLog/{id}",
- action = "EditLog",
- [✓ defaults: new]
- constraints: new

```
  {
       controller = "RunLog",
```

- id = @"\d+"
- url: "RunLog/EditLog/{id}",
- [✓ action = "EditLog",]
- defaults: new
- constraints: new

```
  },
```

- id = @"\d+"
- url: "RunLog/EditLog/{id}",
- action = "EditLog",
- defaults: new
- [✓ constraints: new]

```
  {
```

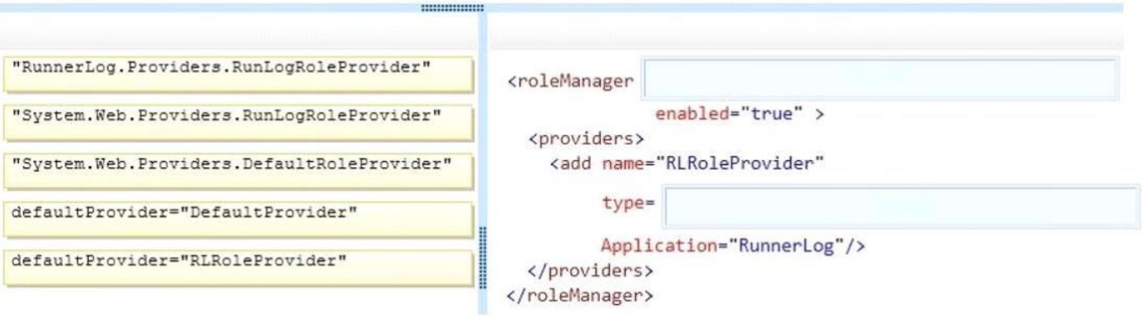
- [✓ id = @"\d+"]
- url: "RunLog/EditLog/{id}",
- action = "EditLog",
- defaults: new
- constraints: new

```
   }
);
```

QUESTION 7
DRAG DROP
You need to ensure that the application uses RunLogRoleProvider custom role provider.

How should you modify the web.config file?

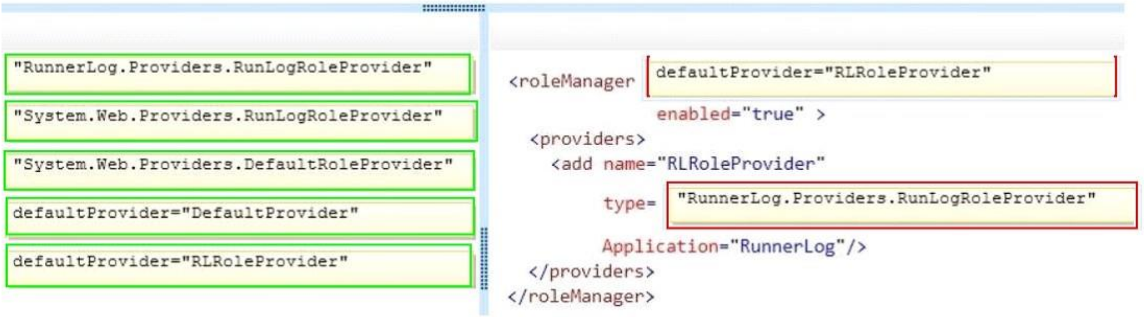
To answer, drag the appropriate line of code to the correct location or locations. Each line of code may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.



```
"RunnerLog.Providers.RunLogRoleProvider"
"System.Web.Providers.RunLogRoleProvider"
"System.Web.Providers.DefaultRoleProvider"
defaultProvider="DefaultProvider"
defaultProvider="RLRoleProvider"
```

```
<roleManager
        enabled="true" >
  <providers>
    <add name="RLRoleProvider"
        type=
        Application="RunnerLog"/>
  </providers>
</roleManager>
```

Correct Answer:



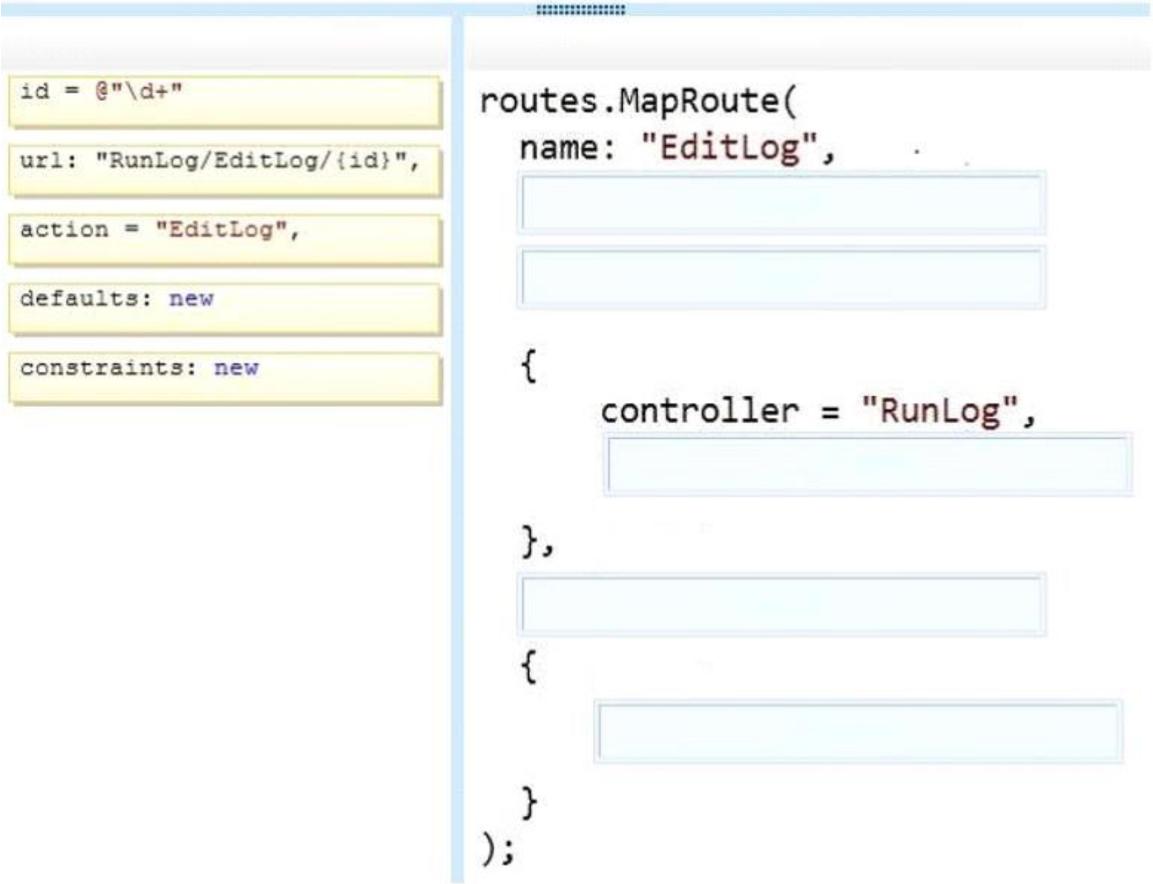
```
"RunnerLog.Providers.RunLogRoleProvider"
"System.Web.Providers.RunLogRoleProvider"
"System.Web.Providers.DefaultRoleProvider"
defaultProvider="DefaultProvider"
defaultProvider="RLRoleProvider"
```

```
<roleManager defaultProvider="RLRoleProvider"
        enabled="true" >
  <providers>
    <add name="RLRoleProvider"
        type= "RunnerLog.Providers.RunLogRoleProvider"
        Application="RunnerLog"/>
  </providers>
</roleManager>
```

QUESTION 8
DRAG DROP
You need to ensure that only valid parameters are passed to the EditLog action.

How should you build the route?

To answer, drag the appropriate code segments to the correct location or locations. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.



```
id = @"\d+"
```

```
url: "RunLog/EditLog/{id}",
```

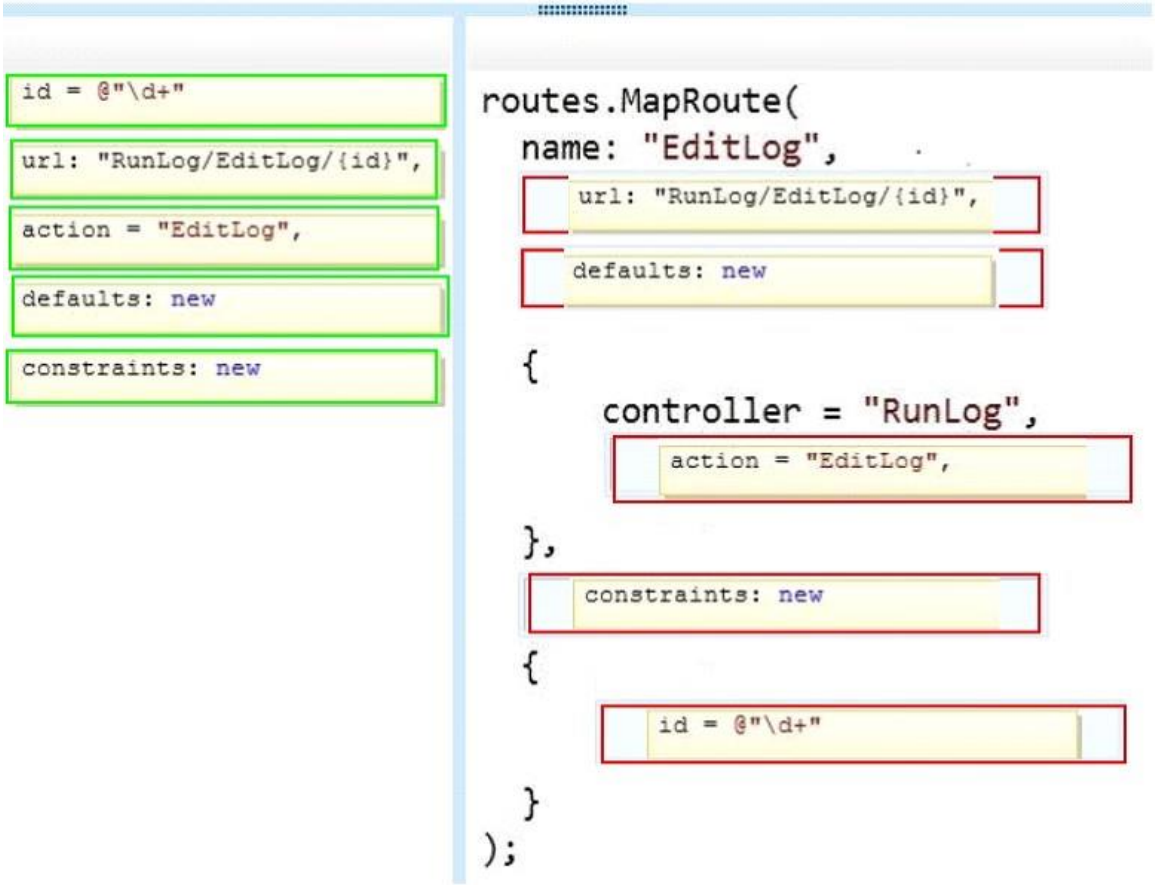
```
action = "EditLog",
```

```
defaults: new
```

```
constraints: new
```

```
routes.MapRoute(
   name: "EditLog",



   {
         controller = "RunLog",

   },

   {

   }
);
```

Correct Answer:



```
id = @"\d+"
url: "RunLog/EditLog/{id}",
action = "EditLog",
defaults: new
constraints: new
```

```
routes.MapRoute(
  name: "EditLog",
  url: "RunLog/EditLog/{id}",
  defaults: new
  {
      controller = "RunLog",
      action = "EditLog",
  },
  constraints: new
  {
      id = @"\d+"
  }
);
```

QUESTION 9

If the canvas element is supported by the client browser, the application must display "London 2012" in the footer as text formatted by JavaScript at the end of the _Layout.cshtml file. You need to modify the layout to ensure that "London 2012" is displayed as either formatted text or as plain text, depending on what the client browser supports. Which code segment should you add?

A. <canvas id="myFooter">
@(Request,Browser.JavaApplets ? new HtmlString("London 2012") : null)
</canvas>

B. <canvas id="myFooter"London 2012</canvas>

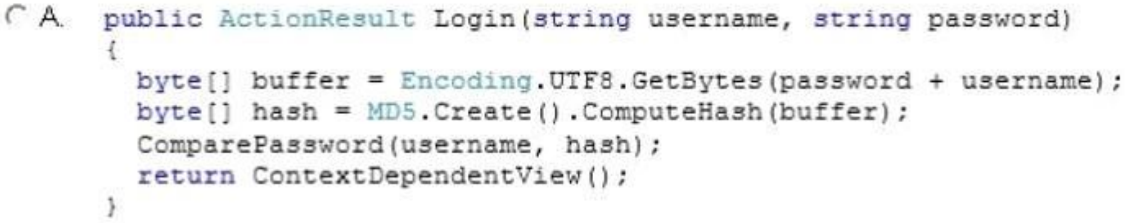
C. <canvas id="myCanvas">London 2012</canvas>

D. <canvas id="myCanvas"><canvas>
<p>London 2012</p>

Correct Answer: C

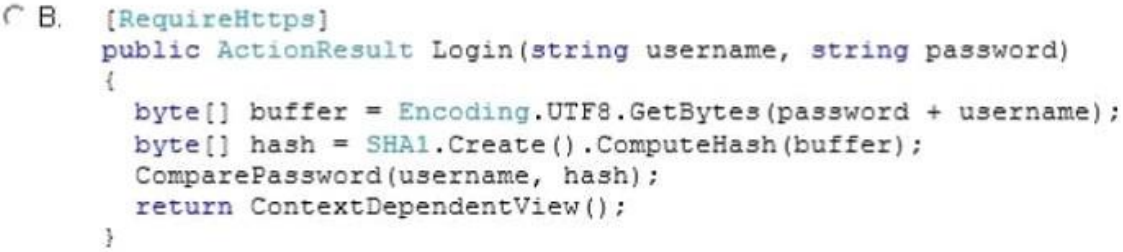
QUESTION 10

You need to add an action to RunLogController to validate the users' passwords. Which code segment should you use?



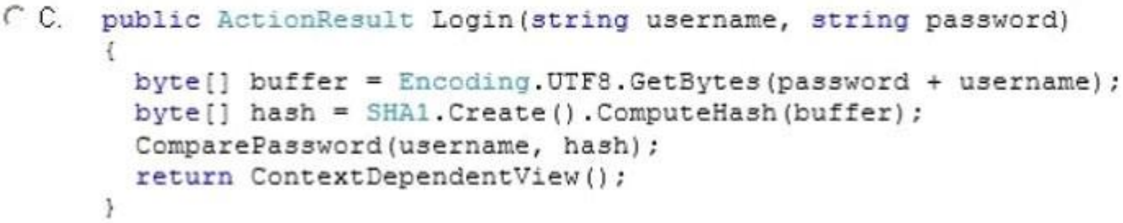
○ A.

```
public ActionResult Login(string username, string password)
{
  byte[] buffer = Encoding.UTF8.GetBytes(password + username);
  byte[] hash = MD5.Create().ComputeHash(buffer);
  ComparePassword(username, hash);
  return ContextDependentView();
}
```



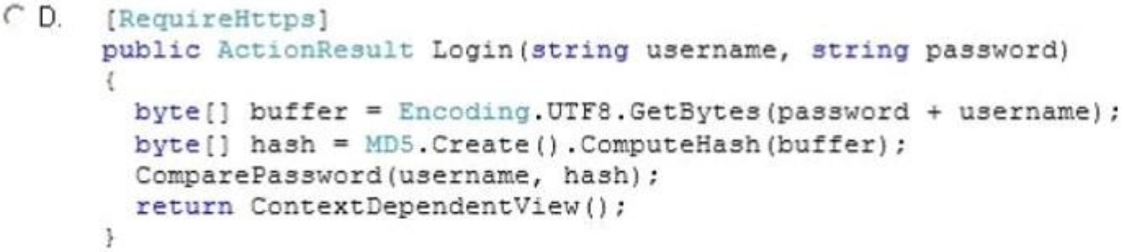
○ B.

```
[RequireHttps]
public ActionResult Login(string username, string password)
{
  byte[] buffer = Encoding.UTF8.GetBytes(password + username);
  byte[] hash = SHA1.Create().ComputeHash(buffer);
  ComparePassword(username, hash);
  return ContextDependentView();
}
```



○ C.

```
public ActionResult Login(string username, string password)
{
  byte[] buffer = Encoding.UTF8.GetBytes(password + username);
  byte[] hash = SHA1.Create().ComputeHash(buffer);
  ComparePassword(username, hash);
  return ContextDependentView();
}
```



○ D.

```
[RequireHttps]
public ActionResult Login(string username, string password)
{
  byte[] buffer = Encoding.UTF8.GetBytes(password + username);
  byte[] hash = MD5.Create().ComputeHash(buffer);
  ComparePassword(username, hash);
  return ContextDependentView();
}
```

A. Option A
B. Option B
C. Option C
D. Option D

Correct Answer: B

QUESTION 11
You need to make all of the rows in the table bold in the Views/RunLog/GetLog.cshtml view.
Which code segment should you use?

A. Table > th:last-child { font-weight: bold; }
B. Table+first-child{ font-weight: bold; }
C. Table>tr>th:nth-child{2}{font-weight: bold; }
D. Table > tr {font-weight: bold;}

Correct Answer: D

QUESTION 12
You need to display the "miles" unit description after the distance in the GetLog view. Which line of code should you use to replace line GL21? (Each correct answer presents a complete solution. Choose all that apply.)

A. @log.Distance miles
B. @Htrml.DisplayFor(model => log.Distance) miles
C. @log.Distance.ToStringO @Html.TextArea ("miles")
D. @Htmi.DisplayFor(model => log.Distance.ToString() + " miles")

Correct Answer: AB

Topic 2, Web Application

Background
You are developing an online shopping web application.

Business Requirements
A user is not required to provide an email address. If a user enters an email address, it must be verified to be a valid email address.
Information about the first product on the product page must fade out over time to encourage the user to continue browsing the catalog.
Administrators must be able to edit information about existing customers.
Administrators also must be able to specify a default product on the product page.

Technical Requirements
General:
The web store application is in a load-balanced web farm. The load balancer is not configured to use server affinity.
The web store application is an ASP.NET MVC application written in Visual Studio 2012.

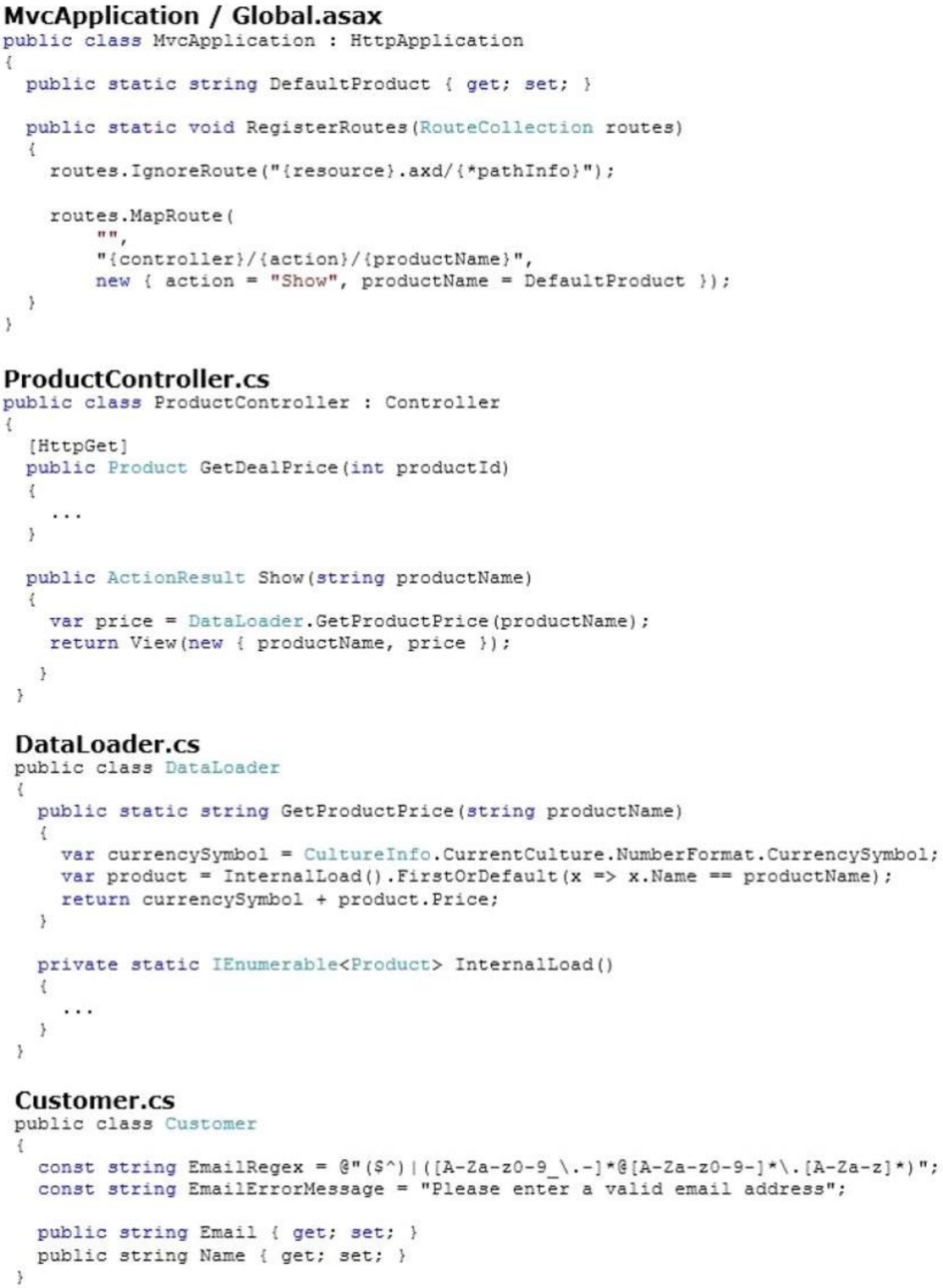
Products:
The value of the productId property must always be greater than 0.
The Products page for mobile devices must display to mobile users. The Products page for desktop devices must display to desktop users.

Storage:
The data must be stored in a serialized XML data format.
Serialized objects must be schema-independent.

Exception handling:
Exceptions originating from IIS must display a page with support contact information.
Some page links expire, and users who access these links encounter 404 errors.
Exceptions must be logged by using the WriteLog method of the Utility class.

Browser and device support:
The application must support image format conversions from .bmp to .jpeg for mobile devices.
The application must support image format conversions from .bmp to .png for desktop devices.

Application Structure



MvcApplication / Global.asax

```
public class MvcApplication : HttpApplication
{
  public static string DefaultProduct { get; set; }

  public static void RegisterRoutes(RouteCollection routes)
  {
    routes.IgnoreRoute("{resource}.axd/{*pathInfo}");

    routes.MapRoute(
        "",
        "{controller}/{action}/{productName}",
        new { action = "Show", productName = DefaultProduct });
  }
}
```

ProductController.cs

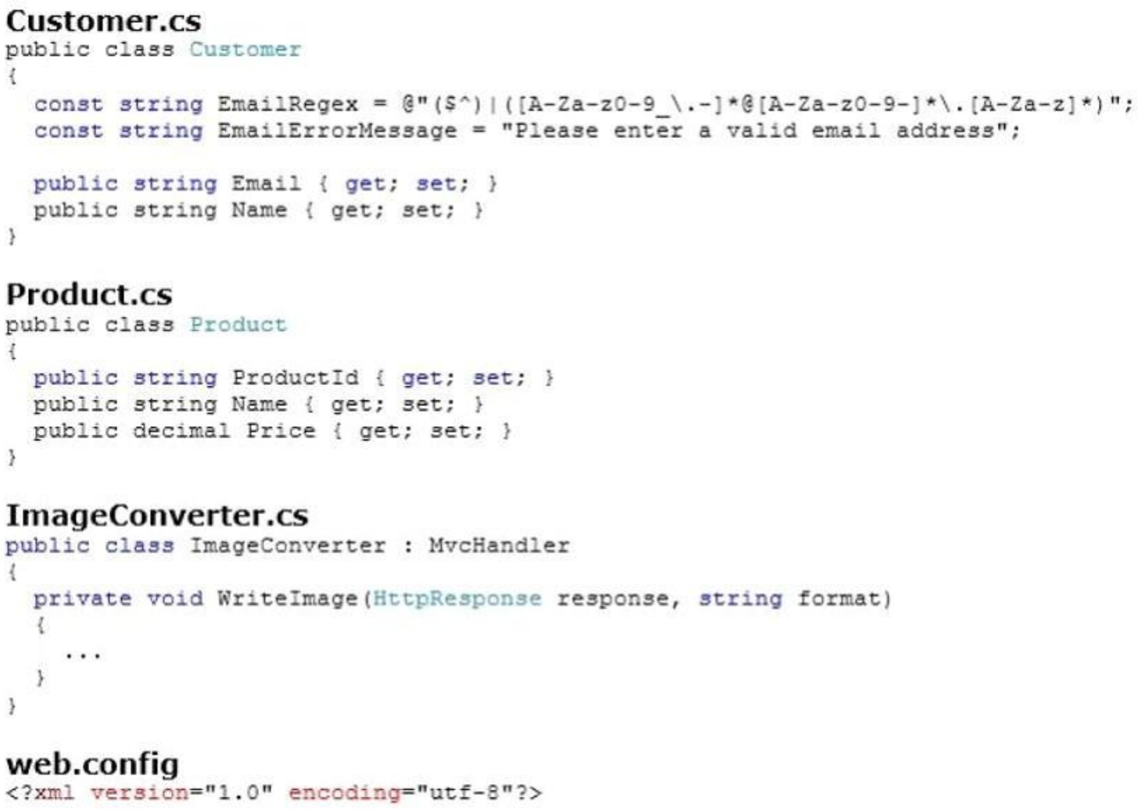
```
public class ProductController : Controller
{
  [HttpGet]
  public Product GetDealPrice(int productId)
  {
    ...
  }

  public ActionResult Show(string productName)
  {
    var price = DataLoader.GetProductPrice(productName);
    return View(new { productName, price });
  }
}
```

DataLoader.cs

```
public class DataLoader
{
  public static string GetProductPrice(string productName)
  {
    var currencySymbol = CultureInfo.CurrentCulture.NumberFormat.CurrencySymbol;
    var product = InternalLoad().FirstOrDefault(x => x.Name == productName);
    return currencySymbol + product.Price;
  }

  private static IEnumerable<Product> InternalLoad()
  {
    ...
  }
}
```

Customer.cs

```
public class Customer
{
  const string EmailRegex = @"($^)|([A-Za-z0-9_\.-]*@[A-Za-z0-9-]*\.[A-Za-z]*)";
  const string EmailErrorMessage = "Please enter a valid email address";

  public string Email { get; set; }
  public string Name { get; set; }
}
```



Customer.cs

```
public class Customer
{
  const string EmailRegex = @"($^)|([A-Za-z0-9_\.-]*@[A-Za-z0-9-]*\.[A-Za-z]*)";
  const string EmailErrorMessage = "Please enter a valid email address";

  public string Email { get; set; }
  public string Name { get; set; }
}
```

Product.cs

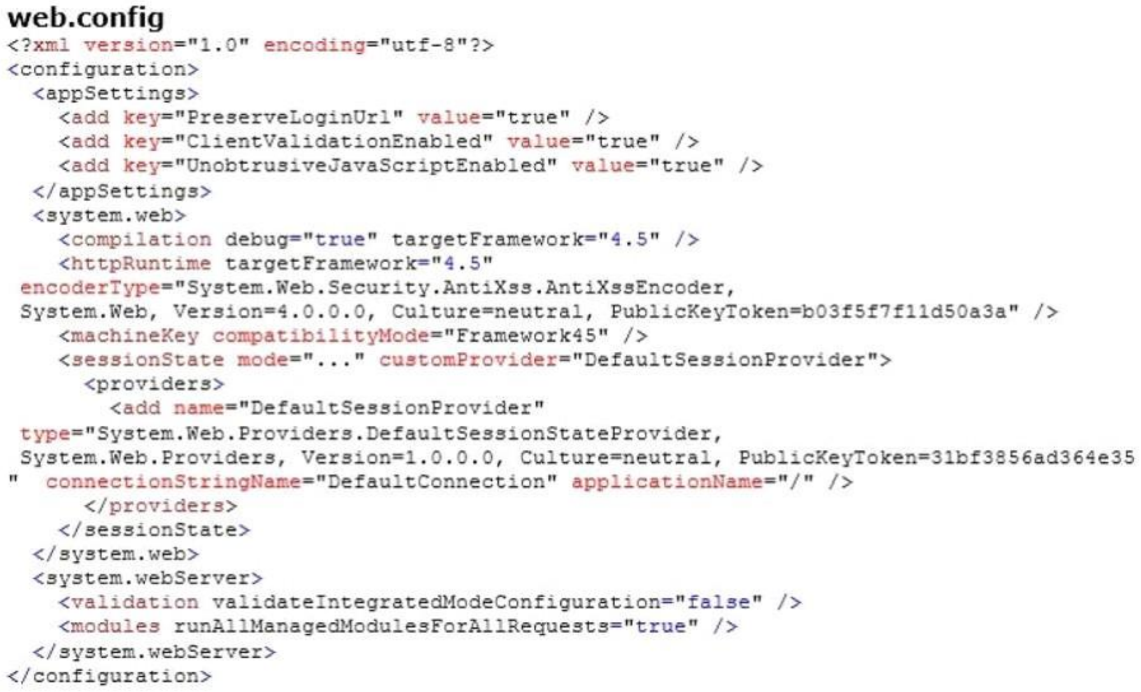
```
public class Product
{
  public string ProductId { get; set; }
  public string Name { get; set; }
  public decimal Price { get; set; }
}
```

ImageConverter.cs

```
public class ImageConverter : MvcHandler
{
  private void WriteImage(HttpResponse response, string format)
  {
    ...
  }
}
```

web.config

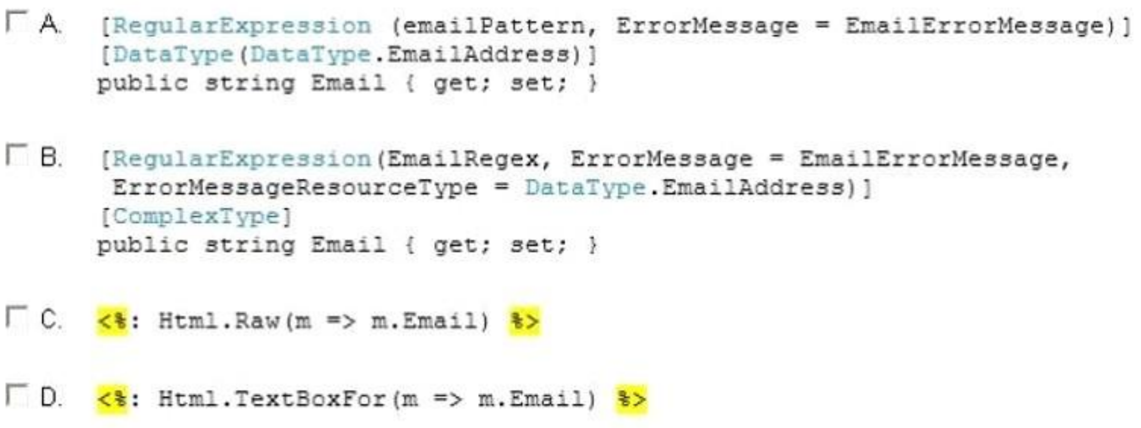
```
<?xml version="1.0" encoding="utf-8"?>
```



web.config

```
<?xml version="1.0" encoding="utf-8"?>
<configuration>
  <appSettings>
    <add key="PreserveLoginUrl" value="true" />
    <add key="ClientValidationEnabled" value="true" />
    <add key="UnobtrusiveJavaScriptEnabled" value="true" />
  </appSettings>
  <system.web>
    <compilation debug="true" targetFramework="4.5" />
    <httpRuntime targetFramework="4.5"
 encoderType="System.Web.Security.AntiXss.AntiXssEncoder,
 System.Web, Version=4.0.0.0, Culture=neutral, PublicKeyToken=b03f5f7f11d50a3a" />
    <machineKey compatibilityMode="Framework45" />
    <sessionState mode="..." customProvider="DefaultSessionProvider">
      <providers>
        <add name="DefaultSessionProvider"
 type="System.Web.Providers.DefaultSessionStateProvider,
 System.Web.Providers, Version=1.0.0.0, Culture=neutral, PublicKeyToken=31bf3856ad364e35
"  connectionStringName="DefaultConnection" applicationName="/" />
      </providers>
    </sessionState>
  </system.web>
  <system.webServer>
    <validation validateIntegratedModeConfiguration="false" />
    <modules runAllManagedModulesForAllRequests="true" />
  </system.webServer>
</configuration>
```

QUESTION 13
You need to ensure that new customers enter a valid email address. Which code should you use? (Each correct answer presents part of the solution. Choose all that apply.)



□ A.
```
[RegularExpression (emailPattern, ErrorMessage = EmailErrorMessage)]
[DataType(DataType.EmailAddress)]
public string Email { get; set; }
```

□ B.
```
[RegularExpression(EmailRegex, ErrorMessage = EmailErrorMessage,
 ErrorMessageResourceType = DataType.EmailAddress)]
[ComplexType]
public string Email { get; set; }
```

□ C.
```
<%: Html.Raw(m => m.Email) %>
```

□ D.
```
<%: Html.TextBoxFor(m => m.Email) %>
```

A. Option A
B. Option B
C. Option C
D. Option D

Correct Answer: AD

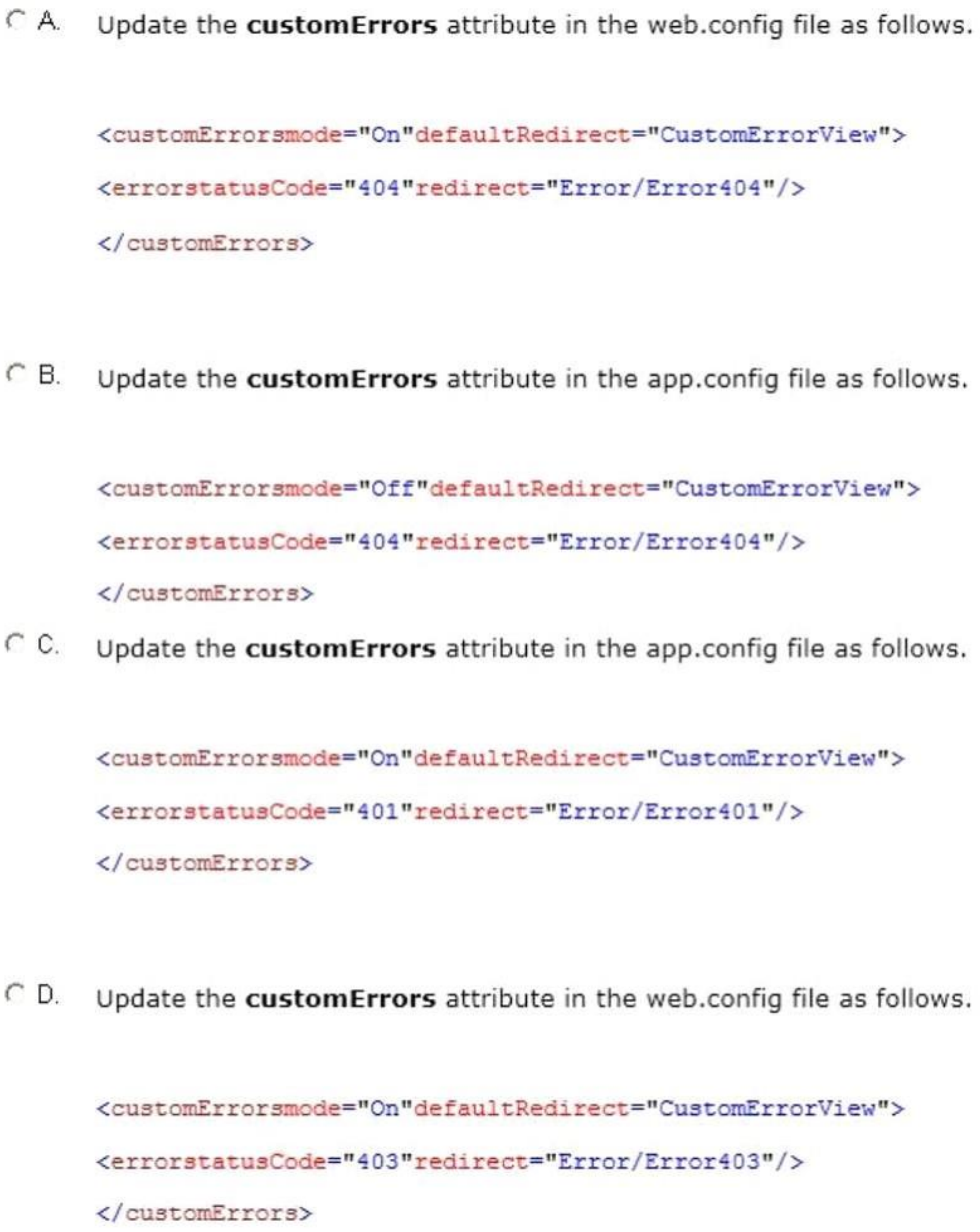
QUESTION 14
You are designing a Windows Communication Foundation (WCF) service that uses the Product class. You need to update the class to meet the storage requirement. What should you do? (Each correct answer presents part of the solution. Choose all that apply.)

A. Mark the Product class with the DataContract attribute.
B. Mark the public members of the Product class with the DataContractFormat attribute.
C. Mark the Product class with the CollectionDataContract attribute.
D. Mark the public members of the Product class with the DataMember attribute.

Correct Answer: AD
Explanation:
So as of .NET 3.5 SP1, you don't have to add data contract or data member attributes anymore - if you don't then the data contract serializer will serialize all public properties on your class, just like the XML serializer would. HOWEVER: by not adding those attributes, you lose a lot of useful capabilities:
without [DataContract], you cannot define an XML namespace for your data to live in
without [DataMember], you cannot serialize non-public properties or fields
without [DataMember], you cannot define an order of serialization (Order=) and the DCS will serialize all properties alphabetically
without [DataMember], you cannot define a different name for your property (Name=)
without [DataMember], you cannot define things like IsRequired= or other useful attributes
without [DataMember], you cannot leave out certain public properties - all public properties will be serialized by the DCS

QUESTION 15

You need to implement the requirements for handling IIS errors. What should you do?



○ A. Update the **customErrors** attribute in the web.config file as follows.

```
<customErrorsmode="On"defaultRedirect="CustomErrorView">
<errorstatusCode="404"redirect="Error/Error404"/>
</customErrors>
```

○ B. Update the **customErrors** attribute in the app.config file as follows.

```
<customErrorsmode="Off"defaultRedirect="CustomErrorView">
<errorstatusCode="404"redirect="Error/Error404"/>
</customErrors>
```

○ C. Update the **customErrors** attribute in the app.config file as follows.

```
<customErrorsmode="On"defaultRedirect="CustomErrorView">
<errorstatusCode="401"redirect="Error/Error401"/>
</customErrors>
```

○ D. Update the **customErrors** attribute in the web.config file as follows.

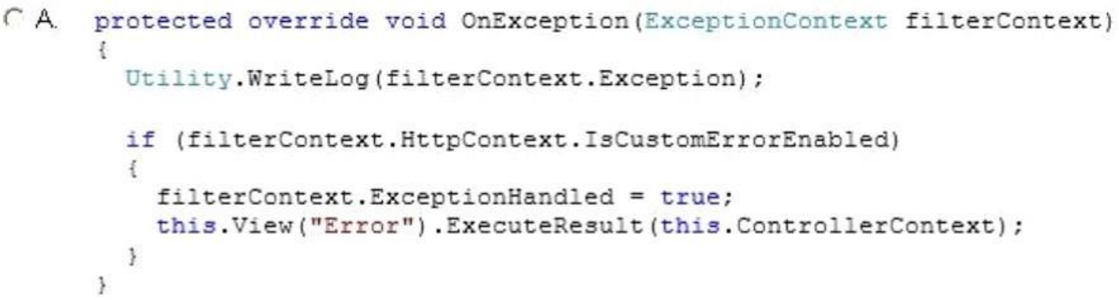
```
<customErrorsmode="On"defaultRedirect="CustomErrorView">
<errorstatusCode="403"redirect="Error/Error403"/>
</customErrors>
```

A. Option A
B. Option B
C. Option C
D. Option D

Correct Answer: A

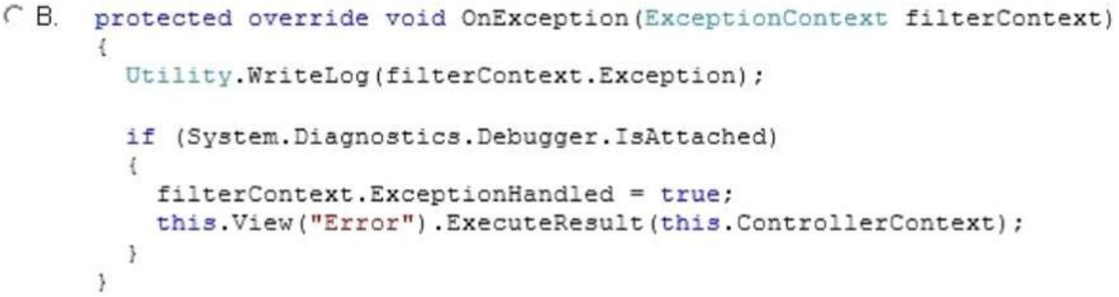
QUESTION 16

You need to add a method to the ProductController class to meet the exception handling requirements for logging. Which code segment should you use?



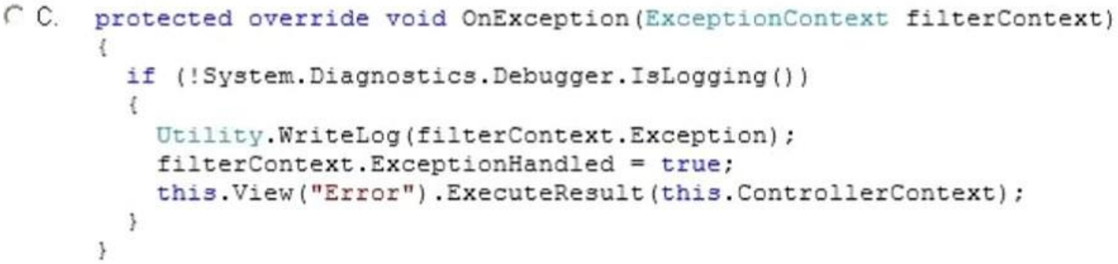
○ A.

```
protected override void OnException(ExceptionContext filterContext)
{
  Utility.WriteLog(filterContext.Exception);

  if (filterContext.HttpContext.IsCustomErrorEnabled)
  {
    filterContext.ExceptionHandled = true;
    this.View("Error").ExecuteResult(this.ControllerContext);
  }
}
```



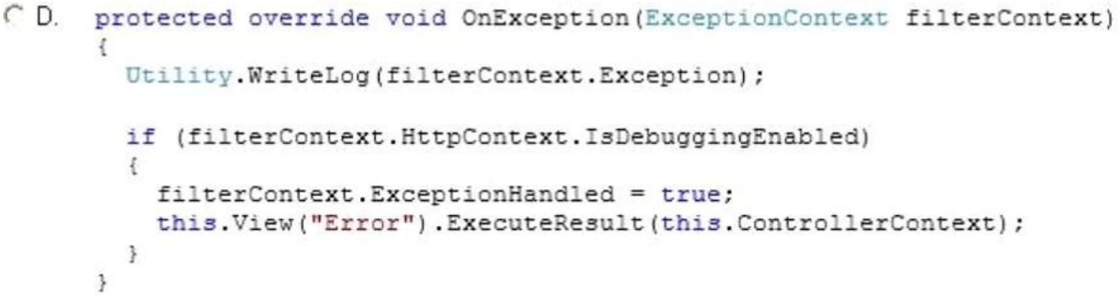
○ B.

```
protected override void OnException(ExceptionContext filterContext)
{
  Utility.WriteLog(filterContext.Exception);

  if (System.Diagnostics.Debugger.IsAttached)
  {
    filterContext.ExceptionHandled = true;
    this.View("Error").ExecuteResult(this.ControllerContext);
  }
}
```



○ C.

```
protected override void OnException(ExceptionContext filterContext)
{
  if (!System.Diagnostics.Debugger.IsLogging())
  {
    Utility.WriteLog(filterContext.Exception);
    filterContext.ExceptionHandled = true;
    this.View("Error").ExecuteResult(this.ControllerContext);
  }
}
```



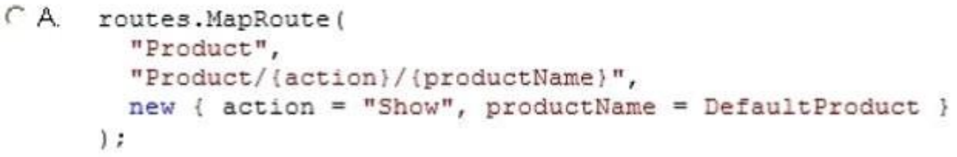
○ D.

```
protected override void OnException(ExceptionContext filterContext)
{
  Utility.WriteLog(filterContext.Exception);

  if (filterContext.HttpContext.IsDebuggingEnabled)
  {
    filterContext.ExceptionHandled = true;
    this.View("Error").ExecuteResult(this.ControllerContext);
  }
}
```

A. Option A
B. Option B
C. Option C
D. Option D

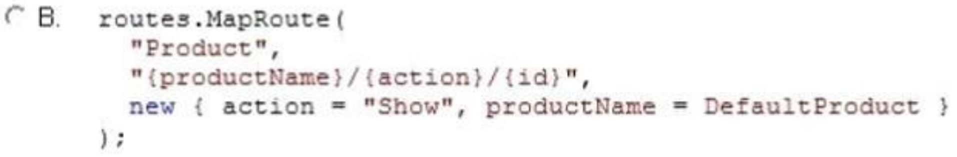
Correct Answer: A

QUESTION 17
An advertising campaign was recently launched. Some of the ads contain a link to products that no longer exist or have IDs that have changed. You need to ensure that all product links display a product. Which code segment should you use to configure the route?



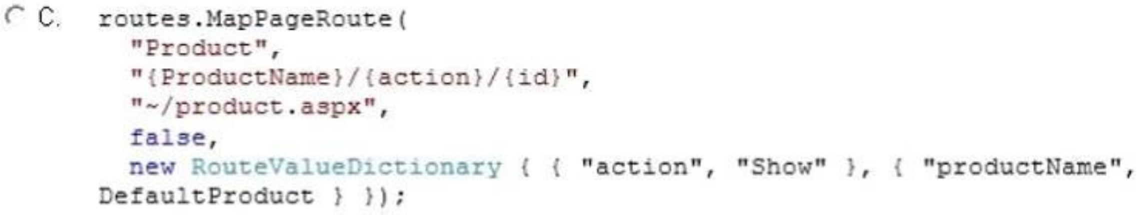
○ A.

```
routes.MapRoute(
  "Product",
  "Product/{action}/{productName}",
  new { action = "Show", productName = DefaultProduct }
);
```



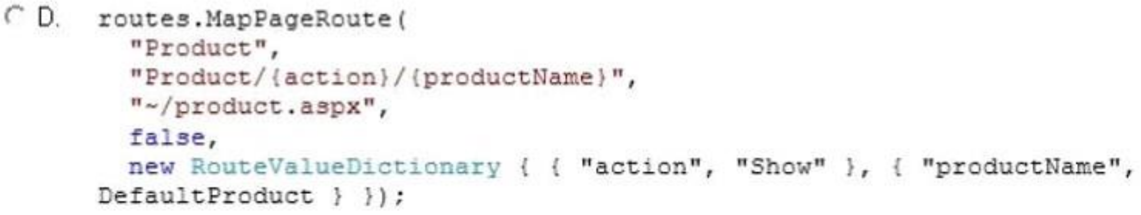
○ B.

```
routes.MapRoute(
  "Product",
  "{productName}/{action}/{id}",
  new { action = "Show", productName = DefaultProduct }
);
```



○ C.

```
routes.MapPageRoute(
  "Product",
  "{ProductName}/{action}/{id}",
  "~/product.aspx",
  false,
  new RouteValueDictionary { { "action", "Show" }, { "productName",
DefaultProduct } });
```



○ D.

```
routes.MapPageRoute(
  "Product",
  "Product/{action}/{productName}",
  "~/product.aspx",
  false,
  new RouteValueDictionary { { "action", "Show" }, { "productName",
DefaultProduct } });
```

A. Option A
B. Option B
C. Option C
D. Option D

Correct Answer: A

QUESTION 18
You need to modify the application to meet the productId requirement. What should you do?

A. Modify the RegisterGlobalFilters method of the Global.asax.es file as follows.
Contract.Assume<ArgumentException>(productId != 0);
B. Modify the GetDealPrice method of ProductController as follows.
Contract.Requires<ArgumentException>(productId > 0);
C. Modify the RegisterGlobalFilters method of the Global.asax.es file as follows.
Contract.Requires<ArgumentException>(productId > 0);

D. Modify the GetDealPrice method of ProductController as follows.
Contract.Assume<ArgumentException>(productId > 0);

Correct Answer: B
Explanation:
The Contract.Requires(Of TException) method specifies a precondition contract for the enclosing method or property, and throws an exception if the condition for the contract fails.
Syntax:
'Declaration
Public Shared Sub Requires(Of TException As Exception) (_ condition As Boolean _
)
Type Parameters
TException
The exception to throw if the condition is false.
Parameters
condition
Type: System.Boolean
The conditional expression to test.

Reference:
Contract.Requires(Of TException) Method (Boolean)

QUESTION 19
You need to implement the business requirements for managing customer data. What should you do? (Each correct answer presents part of the solution. Choose all that apply.)

A. Add a class named Customer-Controller to the Controllers folder. Then add a method named Edit to the class.
B. Create a new controller named Administration in the Controllers folder. Add an action named EditCustomer to the controller.
C. Add a folder named Customer to the Views folder. Then create a view inside this folder named Edit.aspx.
D. Create a new folder named EditCustomer to the Views folder. In the new folder, create a new file named Administration.aspx.

Correct Answer: AB

QUESTION 20
You updated the web.config file with the HTTP run-time value required to display an alternative version of the site. You need to ensure that the correct page displays to the users. Which code segment should you use to update the controller?

A. If (Request.IsTabletDevice)
B. If (Request.Browser.IsBrowser("Mobile"))
C. If (Request.UserAgent["Tablet"])
D. If (Request.Browser.IsMobileDevice)

Correct Answer: D