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| Case Study |
| 2012 |
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| |  | | --- | | Following a review of your abilities in the theoretical test, the case study enables you to display your practical skills in delivering a small software project within the context of the regular work ethic at Catalogue Solutions. | |
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Index

[1. License, Copyrights and Disclaimer 2](#_Toc329442706)

[2. Instructions 3](#_Toc329442707)

[3. Case Study 4](#_Toc329442708)

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# Instructions

The time allowed for this case study is **8 hours**. You should complete the case study in coherence with the coding standards provided to you, whilst dedicating enough time to revise the deliverable and ensure that basic functionality is working as expected.

You are provided with a computer having:

1. Internet Connectivity
2. Text Editor
3. Image Editor
4. Visual Studio 2010
5. Microsoft SQL Server 2008
6. IIS Web Server

Your deliverable will be assessed against the following core criteria:

1. The ability to design and structure a web application in a relevant N-tier architecture with adherence to OOP principles
2. The ability to deliver a front-end running on a relevant template and following DRY principles, thus composed of re-usable front-end modules
3. Coherency with the company coding standards provided
4. Code validity, in terms of W3C standards (CSS and HTML) as well as .NET compiler validations.
5. Competency in delivering a working version of all the core features required

The criteria are listed in relative order of importance. Therefore, whilst proficiency will be also assessed by the completeness of the final deliverable within the allocated timeframe, the overall quality of the deliverable is also very important.

Good Luck!

# Case Study

Product catalogues used to be phone-book-size volumes; now they’re applications — among the most common found on the Web. That’s because most companies want to show off their products. Small companies sometimes create Web sites that have just a few products. Other companies, such as Amazon.com, have online catalogues with hundreds of thousands of products. Still, the idea is the same: online product catalogues exist because they drive sales.

Many web sites not only let users browse the product catalogue, but also let users purchase products directly from the web site. This case study requires you to deliver a working application that:

1. Presents a home page to a potential customer
2. Presents product information that’s stored in a database in an interesting and useful way.
3. Allows a customer to add a product to a shopping cart

The following diagram describes the overall navigation flow required.

Home Page (*index.aspx)*

Product list page (*showProducts.aspx)*

Product detail page (*product.aspx)*

Shopping Cart page (*basket.aspx)*

You will find a set of mock-ups on your Desktop. You should strive to adhere to the design guidelines defined in these mock-ups. The dynamic content (categories, products etc.) is arbitrary and, as in a real-world scenario, may be changed and/or embellished.

The screen designs describe some functionality which is beyond the scope of the navigation flow described. These include links in the footer and a search engine. These screen elements should be retained, but you are not expected to develop the functionality which they suggest.

The implementation needs to exploit the following technologies:

1. ASP.NET (C#) 2.0, 3.5 or 4.0
2. Microsoft SQL Server 2008

The front-end needs to be compatible with major browsers installed on your computer (Firefox, Internet Explorer and Chrome) and should thus exploit:

1. XHTML 1.0 Strict (validated against W3C standards)
2. CSS (validated against W3C standards)
3. JavaScript, where relevant (use of open source 3rd party libraries such as jQuery is allowed)

The deliverable should be set up to load the home page immediately by browsing to ***http://localhost*** on your local machine.