



Assessment information booklet

Competencies for this subject

This subject covers the following competencies:

- ICTWEB516 Research and apply emerging web technology trends
- ICTPRG527 Apply intermediate object-oriented language skills

Assessments

There are two assessment tasks in this subject:

Assessment task	Required evidence
Assessment Task 1: Research proposal	You are required to submit: <ul style="list-style-type: none"> • Research proposal with a recommended solution • A simple project schedule, i.e., Gantt chart
Assessment Task 2: Practical	You are required to submit: <ul style="list-style-type: none"> • A fully functional, fully tested, fully documented C# web application

Submitting assessments

Assessments are submitted in one of three ways. Look for the instructions with each assessment.

- Most assessments can be completed on your computer and the file uploaded to myIvy. Make sure you name the files according to instructions in each assessment before uploading.
- Some interactive assessments are completed on screen through myIvy. In most cases you will see your mark immediately after completing the assessment.
- Some assessments require you to either make a presentation or undertake a role play. These can be done either in class or online. If you are studying online you will be given instructions by your facilitator on how to participate.

Your assessment answers should conform to the Ivy College Style Guide, a copy of which is available on the myIvy site in the *Learning and Study Support* section. When submitting any assessment, make sure your name and subject code are on each page so that it is identifiable as your work.

A note about referencing

The preferred style for referencing publications in your assessments is the APA Style. It is expected that you include a reference list of any books, websites, images, YouTube clips, journal articles and other information sources that you use. Also, include in text referencing for when you quote or paraphrase from these resources. There are many books and websites that provide information about this referencing system.

It is recommended to use the Ivy College Library on myIvy where the Study Skills Section has referencing guides available which provide clear and comprehensive information that should help.

Assessment Task Case Study

Your Earth. Your Home

“Your Earth. Your Home” is a not for profit organisation that aims to promote sustainability initiatives at a grassroots level through individual awareness.

Their mission is to educate individuals of the importance and urgency of change from within to bring about to change the world. They believe that saving the world from man-made disasters should start from the individual. They adhere in Mahatma Gandhi’s famous words, “Be the change you wish to see in the world.”

Their brand conveys energy, growth, vitality and colour – a bright future and they need a new website to promote brand awareness and which encompasses all of these things.

The brief

“Your Earth.Your Home” needs a site that will act as a showcase for their fresh and contemporary new branding. There is a lot of information which needs to be contained within the website and structured in a simple and accessible way. The design has to be visually engaging to its audience and abide by the basic principles of analysis and design. The aim of site is to encourage individuals to take action and become involved.

As a charitable organisation, “Your Earth.Your Home” wants users to join online, book events and donate through their website. They also need an area where they can sell unique gifts designed to encourage further support.

The website also collects information from users via the “Subscribe” page i.e. email addresses and demographic data to be collected, stored and exported for use by the company for direct marketing projects.

The following pages are required (details on these pages are included in Assessment Task 2):

1. Home
2. About us
3. Image gallery
4. A blog page
5. Subscribe
6. Calendar page
7. Donate
8. Shop

In addition, the client would like to be able to make changes to the website themselves and would like you to recommend a CMS solution.

Website Content

Your site should show your understanding of the principles of design through the visual presentation of the material.

1. Home page

Must include the corporate logo, image/s to attract new subscribers to the site and that are related to sustainability, links to sustainability sites and other relevant information including:

We are focused on minimising and reducing the individual's consumption of power, water and other consumables at home and at work. We do this by offering individual support and advice on sustainability issues and environmental projects. We believe that to save our planet, we should first change ourselves. Change starts with you. As Mahatma Gandhi once said, "Be the change you wish to see in the world."

Sustainability sites may include:

<http://www.earthhour.org>

<http://www.50waystohelp.com>

<http://www.greenpeace.org>

<http://www.wwf.org.au/>

2. About us page.

This page explains the organisation's aims and objectives which are:

Our vision is to save the planet from man-made environmental catastrophe.

Our mission is to create a sustainable future for humanity starting from each and every individual.

Our objective was to start sustainability initiatives at the grassroots level through individual awareness.

We aim to educate each individual person to the importance and urgency of starting change with themselves to change the world.

We believe in the words of Mahatma Gandhi, "Be the change you wish to see in the world."

You can also put a picture of yourself as the CEO of the organisation. And use Lorem Ipsum for any additional text requirements.

3. Image gallery

Incorporate at least five images relevant to sustainability using gridview or datalist controls. (Refer to the Copyright note).

4. Blog page

Featuring tips from guest contributors on how to conserve energy at home. You can link your blog with a blog site such as blogger.com.

5. **Subscribe**

This page provides a form where users can register their personal information to join. Should include at a minimum Name; Age; Sex; Address; email address; telephone contact; These need to be connected to the SQL Server database.

6. **Events Calendar**

Use a web service to show forthcoming events. Users can book to attend. (No back-end functionality required).

The events already noted in the calendar are as follows:

July 1, 201x

Sustainability in the home workshop

August 12, 201x

Soap-making from organic ingredients

September 20, 201x

Setting up a solar-panel workshop

October 3, 201x

Reducing power consumption seminar

November 14, 201x

Reducing your carbon footprint

December 1, 201x

Planning your first sustainable Christmas (Seminar)

7. Donate

A form where users can donate money using a credit card or PayPal. (Note: This does not need to be a working component but can be a visual representation of the donation page. i.e. Create a webform for the front-end with no backend functionality.)

8. Shop

Site visitors and registered users can shop in the online store for unique gifts designed to encourage further support. (Note: This does not need to be a working component but can be a visual representation of the shopping cart. i.e. Create a front-end interface with no backend functionality.)

Contact Details

The following contact details should be used in the site where specified.

123 Sustainability Street, Green City

Tel. (Work) 02 9280 1111

Mob. 0411 111 111

Fax 02 9280 1112

Email info@yourearth.com.au

Web <http://www.yourearth.com.au>

Copyright Note

As professionals we must exhibit professional behaviour. You are obliged to obtain only images that you have obtained from web sites that provide free images.

Just using any image that is available does not mean that they are free to use. You need to make sure that the images you are using are indeed from a web site that specifies that the images are free or creative commons (<http://creativecommons.org.au/>).

You can use your own photos, but make sure that they are not taken of a product that is copyright protected.

Assessment Task 1

Background

You have been contacted by Peter Parker, the PR Director at “Your Earth. Your Home” and asked to provide a proposal for their website.

Part A: Emerging Web Technology Trends

They are not familiar with web development and require an explanation of emerging web technology trends and how (where applicable) they can be incorporated into their site construction.

They would also like you to clarify for them these emerging web technologies and terminologies such as Content Management System (CMS), Web 2.0, HTML5, Active Server Pages (ASP.NET), PHP, JSP, MySQL.

Specifically, they would like to understand the following

- What is a CMS and will they need one for their website?
- What is Web 2.0?
- What is the difference between HTML and HTML5?
- Explain the difference between ASP.NET, PHP, or JSP.
- Explain the difference between Microsoft SQL Server, PostgreSQL, Oracle, MySQL and Microsoft Access
- You will be using Microsoft Visual Studio Express 2013 and C# with ASP.NET with a SQL Server Express database . Explain how this will meet the needs of the web application to be created.

For this task, you need to research and answer the above questions and propose how you will implement (where relevant) these technologies in the client website. Your proposal should be constructed professionally for the client.

and supply the URL to your facilitator

Part B: Requirements Checklist and client meeting

To ensure you have accurately interpreted the client requirements, you need to prepare a requirements checklist. (See template provided: Example Requirements Review Checklist)

You then need to schedule a one-on-one meeting (online learners may use an electronic meeting tool of choice i.e. phone /Skype) with your client (facilitator) and go through the checklist created

Amend as required and embed the final checklist

Part C: Project Schedule

Using a tool of choice (i.e. Google calendar, Word, Excel, Project), create a simple project management schedule for your client for the proposed project. Embed in your and supply a link to your facilitator.

Example Requirements Review Checklist

When examining a set of requirements, the reviewer might use the following questions:

ID	Yes/No	Items to Examine
1		Are all classes of users described? Are the user characteristics described?
2		Does the specification include all known customer or system needs? <i>Are all the tasks the user wants to perform specified?</i>
3		Does each functional requirement specify input and output, as well as function, as appropriate?
4		Have all dependencies on other systems been identified? (applications or application interfaces, databases, communications subsystems, networking, etc.)
5		Are user documentation and training requirements addressed?
6		Are the hardware and software environments specified?
7		Have all derived requirements been included? (those implied by the system or software requirements, generally constraints on development or verification)

ID	Yes/No	Items to Examine
8		Has full life cycle support been addressed, including maintenance?
9		Are any design or implementation constraints described?
10		Are all reliability, recoverability (business continuity), and performance requirements properly specified?
11		Are all security requirements properly specified?
12		Are all safety requirements properly specified?
13		Have all data privacy requirements been included?
14		Are time critical functions identified, and timing criteria specified for them?
15		Have any regulatory, legislative, or standards-driven requirements been addressed?
16		Have all quality attributes (characteristics) been properly specified (i.e. efficiency, flexibility, interoperability, maintainability, portability, reusability, usability, availability)
17		Have the human interface requirements been addressed? Are they correct?
18		Are all external hardware, software, and communication interfaces defined? Are they correct?

Assessment Task 2 – Website

Part A: Website Navigation

Create a navigation diagram which shows both the navigation of the site and the positioning of any specific requirements (ie feeds, social media, calendar etc.) that were identified in Assessment Task 1 Part B.

Learners may use a tool of choice to create their navigation diagram. (<https://www.draw.io/>; <http://pencil.evolus.vn/> Microsoft Word, Photoshop)

Embed a low resolution version of the images into your Seek client (facilitator) approval before continuing to the next phase.

Part B: Website Build

The “Your Earth. Your Home” management are happy with your proposal and diagrams and would like to see a “working” prototype of the website. You can use the following websites as a reference:

- <http://www.earthtrust.org.au>
- <http://www.foe.co.uk/>

You are just required to build a “working” prototype of the website at this stage with minimal functionality subject to stakeholder approval.

You following pages need to be included:

1. Home
2. About us
3. Image gallery
4. A blog page
5. Subscribe
6. Calendar page
7. Donate
8. Shop (a shopping cart)

(Content details are in the case study)

Website Specifications

The following technical requirements must be met:

1. Use Microsoft Visual Studio Express 2013 and C#.NET to build your OO application and follow guidelines for developing maintainable code adhering to C#.NET coding standards
2. The website must incorporate the corporate colours in all the pages (see logo)
 - a) Green (Hex #008000)
 - b) Yellow (Hex #FFFF00)
3. Create a Web User Control for the header of the pages
 - a) Show the name of the business and the logo. Use your understanding of Design Principles to ensure it is aesthetically pleasing.
 - b) Provide the business contact details in the header.
4. Create a Web User Control for the footer of the pages.
 - a) Position links to other pages of the web site in the footer using breadcrumb navigation.
5. Register the header and footer with all of the web pages to ensure that the look and feel of the web site is the same on each page.
6. You can use web user control sub-templates
7. Data entry forms must include validation controls. For example, to check whether correct email addresses are entered.
8. Front-end web forms capturing user information and donation details are stored on an SQL Server Express back-end database that can be created, extracted, updated, deleted, and queried. Database tables must be configured to ensure Referential Integrity.
9. Use C# data collections class i.e., arrays to store data
10. Use exceptions to ensure program stability

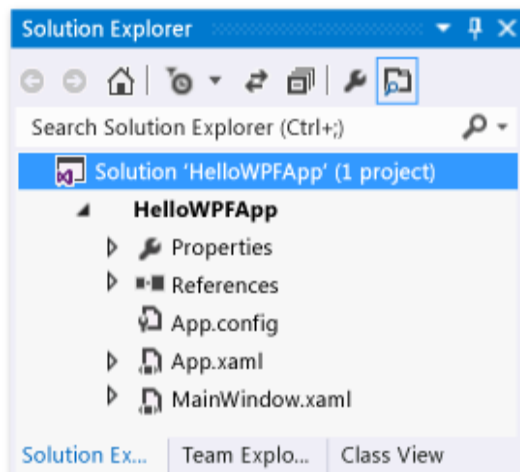
11. Use class inheritance for types of members. For example, there are Corporate Sponsors and Individual Members but could be classified as derived classes under the parent Member class
12. Use GUI components such as buttons, text input fields, checkboxes, drop-down lists etc. Each component must have a fully functioning code-behind written in C#. NET. For example, clicking Add Member button will save the data to the MS Access database.

Part C: Testing and documentation

Web application must be fully tested using the IDE's debugging features, i.e., breakpoints. It must be tested in at least all the major browsers such as IE, Chrome, Safari and Firefox.

- 1 Produce test documentation (see templates provided) as part of your submission.
- 2 Submit the following program documentation:
 - a) "Web application" folder that resides in c:\inetpub\wwwroot

Sample solutions folder in Microsoft Visual Studio Express 2013



- b) The SQL Server Express database (which should be in the folder above)
- c) The "solution folder" in your Documents folder you will find a Microsoft Visual Studio Express 2013 folder and within that look at the Project folder

- i) Place all of this into a ZIP file. Your facilitator will unzip this file and run your web application in debug mode.

Backup