



DUBLIN CITY UNIVERSITY  
NATIONAL INSTITUTE FOR DIGITAL LEARNING  
OPEN EDUCATION / DCU CONNECTED

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**MODULE:** C1: IT AND WEB TECHNOLOGY FUNDAMENTALS

**PROGRAMME(S):**

BSC IN INFORMATION TECHNOLOGY  
BSC IN MANAGEMENT OF INFO TECH/INFO SYST  
HDIP IN SOFTWARE DEVELOPMENT  
CCP Certificate IN SOFTWARE DEVELOPMENT

## **ASSIGNMENT 1 2020–2021**

QUESTION 1: relevant to Units 1, 2 and 3

QUESTION 2: relevant to Unit 4

QUESTION 3: relevant to Units 5, 6 and 7

### **QUESTION 1**

**[TOTAL MARKS: 25]**

Explain, in your own words, with the aid of examples, each of the following:

Primary Storage

Open Source Software

Digital Multimedia

Bitmap Images

Vector Graphics

Include citing and referencing in your answer, and include a diagram of your own creation for one of the above.

**[END OF QUESTION 1]**

### **QUESTION 2**

**[TOTAL MARKS: 20]**

You have been chosen to plan the design of a website for a travel agent, but first you are required to perform market research on a competitor website. Your tasks are:

- Include the name of the competitor website.
- Identify at least three things you like and one thing that you dislike about the website.
- State the reasons for your likes / dislike(s).
- Identify and describe its main sections (i.e. large chunks of related information, grouped according to visitor needs).

Recommended word count: 500 words

**[END OF QUESTION 2]**

### QUESTION 3

[TOTAL MARKS: 55]

#### Q 3(a)

[45 Marks]

Develop a homepage (index.html) and contact page (contact.html) to promote interest in a historic building in your area:

You should:

- Develop the page in native HTML using the HTML5 DOCTYPE specification
- Use simple webpages with a good design and clean visual layout
- Include html comments and clear code alignment and indentation
- Make effective use of SEO
- Include two or more images
- Include two or more links
- Include a location map
- Use Relative Addressing to access images located in a subdirectory of the root folder (i.e. the root folder should contain index.html, contact.html and a directory called images; index.html and contact.html should use relative addressing to access images stored in the images directory).

You should not use JQuery to develop the webpages.

You may use Notepad++ or the HMTL Kit editor:

<http://www.chami.com/html-kit/> or another editor of your choice.

#### Q 3(b)

[10 Marks]

List ten ways that SEO was incorporated into the answer to 3(a). A list of ten short and concise points is required here, to complement and validate your answer to 3(a). Where possible, for each of the above, specify at what point in the code each SEO was incorporated by cross-referencing your answer in 3(a).

Example format:

*A web page title is specified by the use of a title tag in line 7 of the homepage, index.html, as follows:*

*<title>New Business Venture</title>*

*Title tags are displayed on search engine results pages (SERPs) as the clickable headline for a given result, and are important for usability, SEO, and social sharing.*

**[END OF QUESTION 3]**

**DELIVERABLES:**

- I. The deliverable for questions 1, 2 and 3(b) should be a document named C1\_A1\_2021\_StudentName.doc. Include deliverable I in the zipped archive that makes up deliverable II.
- II. The deliverable for question 3(a) is one zipped archive of all the files that make up the web pages (i.e. index.html, contact.html and any images or other linked files or folders). Refer to appendix B below if you need help with zipping files. Upload this deliverable to Loop on or before the assignment due date.

**BEFORE SUBMITTING AN ASSIGNMENT, PLEASE READ THE  
ASSIGNMENT REGULATIONS SECTION IN THE COURSE HANDBOOK**

**ENSURE THAT YOUR ASSIGNMENT IS CORRECTLY NAMED**  
e.g. C1\_A1\_StudentName\_2020.doc

**REMEMBER TO KEEP A BACKUP COPY OF YOUR ASSIGNMENT**

## Appendix B: Zipping Files (Creating a Zipped Archive)

Creating an archive means bundling a group of files together into a single container file that can be more easily emailed, uploaded to the web or otherwise transported.

Creating a zipped archive also compresses the files making the bundle smaller than the individual files would have been. An unzipped file archive can have the extension **.rar** while a zipped file should have a **.zip** extension. Please ensure to create a zipped archive for any assignments you are uploading to Loop i.e. with a **.zip** extension

### ***Creating a Zipped Archive***

There are several ways to create a zipped archive. Below are instructions for creating a zipped archive with windows with **7 – zip**. These instructions may vary if you are using a different Operation System. (Also if you are using Windows XP there is an even easier way to create a zip file: First select all of the files you want to add. Then, right-click the files, select "Send To" and "Compressed (zipped) Folder". This will create a .zip file in the same directory.

If you do not have a zip program you can download a free one such as 7 – zip.








### ***Creating a Zip File (Archive) with 7-Zip***

7 – zip is available from [www.sourceforge.net](http://www.sourceforge.net) At the time of writing it could be downloaded from <http://www.7-zip.org/download.html>

Or by going to the 7 – zip homepage on sourceforge and ***selecting Download >> Browse All Packages*** from the top menu bar.

At the time of writing 4.65 is the latest version that is not still in beta.

Click to expand the version you want and download the install file for your operating system If you are not sure which one you want make sure you can see the ***type*** column by clicking on **Options >> Type** as in **fig 1** below.

Options			
Package	Release	Filename	Type
<a href="#">7-Zip</a>			
Latest	<a href="#">4.60 beta</a>	 (2008-08-19 09:59)	
		<a href="#">7z460.exe</a> 	.exe (32-bit Windows)
		<a href="#">7z460_extra.7z</a> 	Other Binary Package
		<a href="#">7z460-ia64.msi</a> 	.msi (Windows installer)
		<a href="#">7z460.msi</a> 	.msi (Windows installer)
		<a href="#">7z460.tar.bz2</a> 	Source .bz2
		<a href="#">7z460-x64.msi</a> 	.msi (Windows installer)

Columns

- + Package
- + Release
- + Filename
- Size
- Downloads
- Architecture
- + Type

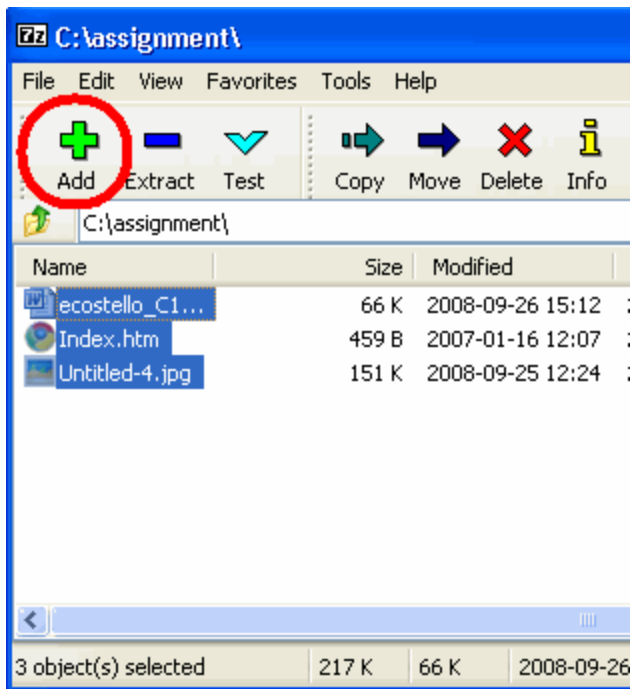
**Fig 1.**

Download and install the program.

Now open 7 – zip and navigate to the folder where you have saved your assignment.

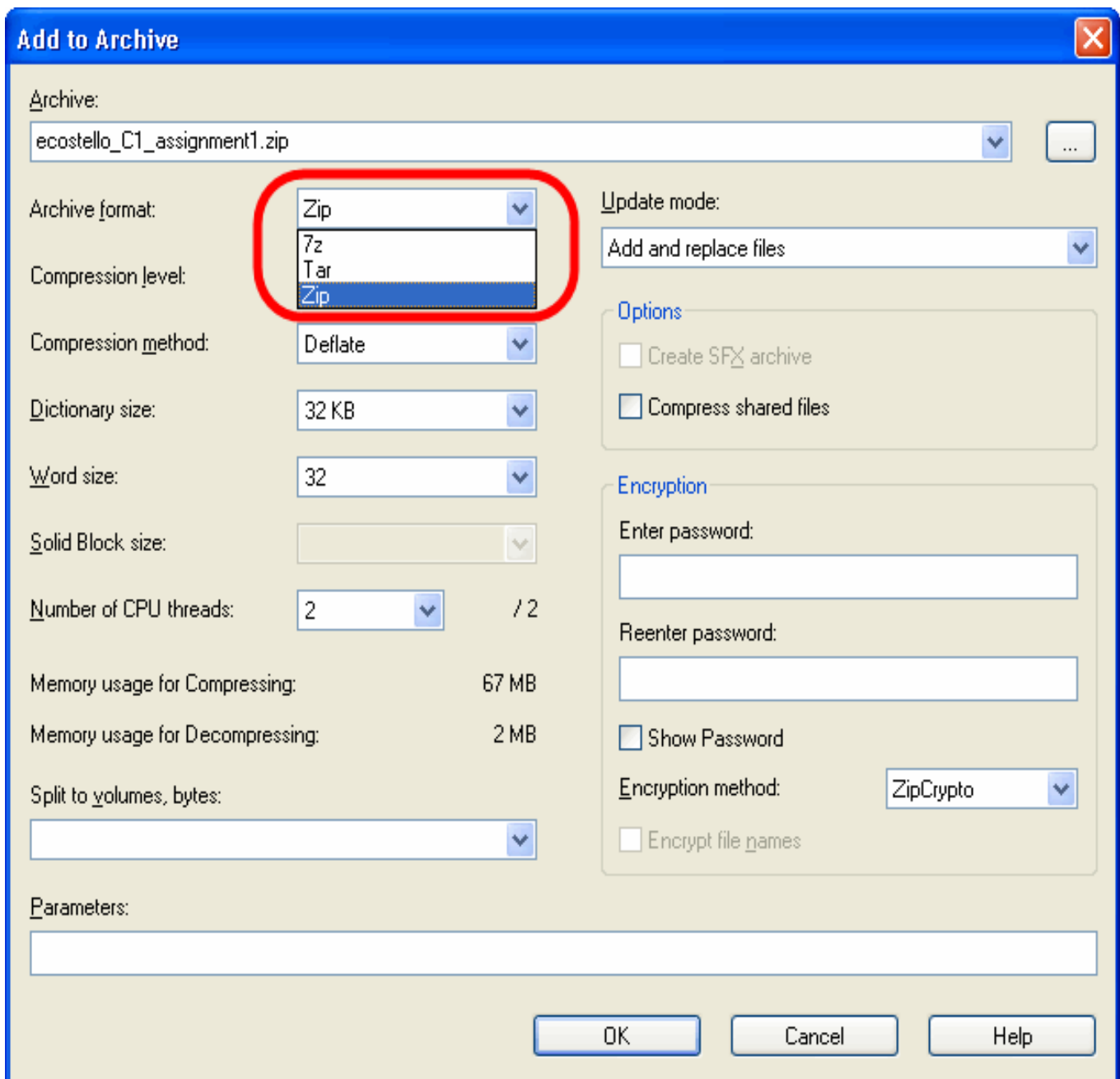
In the figure below some files are saved in a folder called **assignments** on the C drive.

Select these files (**Edit >> Select All**) and then click the **Add** button.



**Fig 2.**

From the next screen give your assignment a filename and make sure to select **zip** under **Archive Format** as indicated in fig 3 below:



**Fig 3**

You should now have a zipped archive in your local folder