

Assignment Brief 01 (RQF)

Higher National Certificate/Diploma in Business

Student Name/ID Number:	
Unit Number and Title:	Unit 09: Software Development Life Cycle
Academic Year:	
Unit Assessor:	
Assignment Title:	Plan a software development life cycle
Issue Date:	07/12/2020
Submission Date:	
Internal Verifier Name:	
Date:	

Submission Format:
<p><i>Format:</i></p> <ul style="list-style-type: none"> The submission is in the form of 1 document. You must use the Times font with 12pt size, turn on page numbering; set line spacing to 1.3 and margins to be as follows: left = 1.25cm, right = 1cm, top = 1cm, bottom = 1cm. Citation and references must follow the Harvard referencing style. <p><i>Submission:</i></p> <ul style="list-style-type: none"> Students are compulsory to submit the assignment in due date and in a way requested by the Tutor. The form of submission will be a soft copy posted on http://cms.greenwich.edu.vn/. Remember to convert the word file into PDF file before the submission on CMS. <p><i>Note:</i></p> <ul style="list-style-type: none"> The individual Assignment must be your own work, and not copied by or from another student. If you use ideas, quotes or data (such as diagrams) from books, journals or other sources, you must reference your sources, using the Harvard style. Make sure that you understand and follow the guidelines to avoid plagiarism. Failure to comply this requirement will result in a failed assignment.

Unit Learning Outcomes:

LO1 Describe different software development lifecycles.

LO2 Explain the importance of a feasibility study.

Assignment Brief and Guidance:

Assignment scenario

Tune Source is a company headquartered in southern California. Tune Source is the brainchild of three entrepreneurs with ties to the music industry: John Margolis, Megan Taylor, and Phil Cooper. Originally, John and Phil partnered to open a number of brick-and-mortar stores in southern California specialising in hard-to-find and classic jazz, rock, country, and folk recordings. Megan soon was invited to join the partnership because of her contacts and knowledge of classical music. Tune Source quickly became known as the place to go to find rare audio recordings. Annual sales last year were \$40 million with annual growth at about 3%–5% per year. Tune Source currently has a website that enables customers to search for and purchase CDs. This site was initially developed by an Internet consulting firm and is hosted by a prominent local Internet Service Provider (ISP) in Los Angeles. The IT department at Tune Source has become experienced with Internet technology as it has worked with the ISP to maintain the site.

System Request

Project Sponsor: Carly Edwards, Assistant Vice President, Marketing.

Business Need: This project has been initiated to increase sales by creating the capability of selling digital music downloads to customers through kiosks in our stores, and over the Internet using our website.

Business Requirements: Using the Web or in-store kiosks, customers will be able to search for and purchase digital music downloads. The specific functionality that the system should have includes the following:

- Search for music in our digital music archive.
- Listen to music samples.
- Purchase individual downloads at a fixed fee per download.
- Establish a customer subscription account permitting unlimited downloads for a monthly fee.
- Purchase music download gift cards.

Business Value: We expect that Tune Source will increase sales by enabling existing customers to purchase specific digital music tracks and by reaching new customers who are interested in our unique archive of rare and hard-to-find music. We expect to gain a new revenue stream from customer subscriptions to our download services. We expect some increase in cross-selling, as customers who have downloaded a track or two of a CD decide to purchase the entire CD in a store or through our website. We also expect a new revenue stream from the sale of music download gift cards.

Conservative estimates of tangible value to the company include the following:

- \$757,500 in sales from individual music downloads.
- \$950,000 in sales from customer subscriptions.
- \$205,000 in additional in-store or website CD sales.
- \$153,000 in sales from music download gift cards.

Special Issues or Constraints:

- The marketing department views this as a strategic system. The ability to offer digital music downloads is critical in order to remain competitive in our market niche. Our music archive of rare and hard-to-find music is an asset that is currently underutilized.
- Many of our current loyal customers have been requesting this capability, and we need to provide this service or face the loss of these customers' business.
- Because customers have a number of music download options available to them elsewhere, we need to bring this system to the market as soon as possible.

Tasks

Complete the following tasks:

Task 1 – SDLC model

You are a project manager of a company named ABC. Your company has been hired by Tune Source to carry out a project that helps them develop a software for the requirements specified in the system request. As the first step, you need to:

1. Describe the following SDLC models: waterfall, v-model, prototyping, scrum and spiral. Choose one that you think suitable for the project and explain why.

- 350 - 500 words for each model.
- Explanation: 400 – 600 words.

Discuss the suitability of each of the SDLC models for the project. For each model, specify whether it is most, moderately or least suitable.

- Word limit: 800 - 1000 words.

Discuss the merits of applying the waterfall model to a large software development project.

- Word limit: 800 – 1200 words.

2. Identify some risks and discuss an approach to manage them.

You will have the present what is **Risk Management process** with clear illustrations and explanations.

Then you will create a **Risk Management Matrix** to assess and manage risks of Tune Source project.

- Word limit: 600 – 1000 words.

Task 2 – Feasibility study

1. Discuss the purpose of conducting a feasibility study for the project.

- Word limit: 400 – 600 words.

2. Discuss how the three feasibility criteria (technical, economic, organizational) are applied to the project. Discuss whether the project is feasible.

Discuss alternative technical solutions using the alternative matrix.

- Word limit: 1200 – 1500 words.

3. Explain the components of a feasibility report.

Discussion economic feasibility study on Tune Source project (NPV, Cashflow, Break-Even Point)

- Word limit 350 – 500 words.

Discussion organizational feasibility study on Tune Source project

- Word limit 350 – 500 words.

4. Assess the impact of each feasibility criterion on a software investigation.

Discussion and represent as feasibility alternatives matrix for Tune Source project

- Word limit: 500 – 700 words.

Learning Outcomes and Assessment Criteria (Assignment 01):			
Learning Outcome	Pass	Merit	Distinction
LO1 Describe different software development lifecycles	<p>P1 Describe two iterative and two sequential software lifecycle models.</p> <p>P2 Explain how risk is managed in the Spiral lifecycle model.</p>	<p>M1 Describe, with an example, why a particular lifecycle model is selected for a development environment.</p>	<p>D1 Assess the merits of applying the Waterfall lifecycle model to a large software development project.</p>
LO2 Explain the importance of a feasibility study	<p>P3 Explain the purpose of a feasibility report.</p> <p>P4 Describe how technical solutions can be compared.</p>	<p>M2 Discuss the components of a feasibility report.</p>	<p>D2 Assess the impact of different feasibility criteria on a software investigation.</p>