# Assessment 4 – ICTICT517 评估 4– ICTICT517

Investigate the effects of change 调查变革的影响









- Students have 2 weeks to complete this task
- In the assessment there are two parts
  - 1. Written Part 2. Observation
- To complete the second part (Observation)
   you "must meet the teacher in school and explain your findings to the teacher"
   (Please do not send the answers via WeChat)
- For this assessment you need to use Microsoft Word and Microsoft Excel

学生有 2 周的时间来完成这项任务 在评估中,有两个部分

<mark>1. 书面第</mark> 2 部分。观察

要完成第二部分(观察)——你"必须在学校见到老师,并向老师解释你的发现" (请不要通过微信发送答案)

对于此评估,您需要使用 Microsoft Word 和 Microsoft Excel



- Activities in this task are a continuation of activities in the previous assessment task and are based on the scenario presented in assessment task 2.
- You have been given the go ahead by your superior to continue with the project. In the next step you are to evaluate the effects of the proposed changes on the ICT environment. "Your investigation will focus only on the deployment and operation of the new LMS server."



Deploy the LMS system infrastructure in the cloud

此任务中的活动是上一个评估任务中活动的延续,并基于评估任务2中提供的方案。

您的上级已批准您继续进行该项目。在下一步中,您将评估拟议的更改对ICT环境的影响。"您的调查将仅关注新 LMS 服务器的部署和操作。"



在云中部署 LMS 系统基础架构

#### Part 1 – Written part

You are to conduct a Cost Benefit Analysis (CBA) comparing different deployment options for the LMS server and identify difficulties in implementing the proposed changes. You will record your findings in a draft report and request a meeting with your superior to present your findings.

#### Part 2 - Observation

You will "meet" with your superior to discuss your findings and seek feedback. The meeting is expected to take about 5 minutes.

#### 第1部分-书面部分

您将进行成本效益分析 (CBA), 比较 LMS 服务器的不同部署选项,并确定实施建议更改的困难。您 将在报告草稿中记录您的发现,并 要求与您的上级会面以介绍您的发现。 现。

#### 第 2 部分 - 观察

您将与您的上司"<mark>会面</mark>",讨论您的 发现并寻求反馈。会议预计需要大 约5分钟

Note: In this assessment you are NOT to make any corrections to your initial findings. You are to present and discuss your draft findings and provide a record of the feedback you have received.

You will incorporate and address the feedback you received in your final report that you will have to present in "Assessment task 5"

Your teacher will take on the role of the YAT College Network Manager and act as your superior.

注意:在此评估中,您不得对您的初步发现进行任何更正。您将展示和讨论您的调查结果草案,并提供您收到的反馈的记录。

您将在最终报告中纳入并解决您收到的反馈 意见,您必须在"评估任务 5"中提出这些反 馈意见

您的老师将担任YAT学院网络经理的角色, 并担任您的上级。

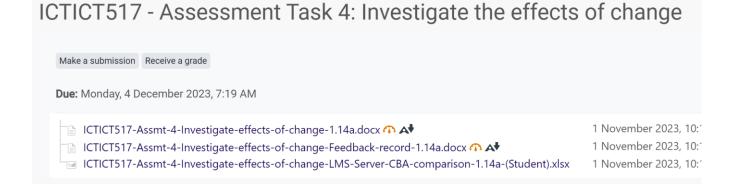


In the first part of the assessment, you need to conduct a Cost Benefit Analysis. Please go and download the 3 documents which are under the assessment 4.

- 1. Answer document
- 2. Feedback Record Document
- Excel Sheet (CBA comparison)

在评估的第一部分,您需要进行成本效益分析。**请去下载正在评估的** 3 份文件 4.

- 1. 答辩文件
- 2. 反馈记录文件
- 3. Excel 工作表 (CBA 比较)



You are to conduct a Cost Benefit Analysis (CBA) comparing different deployment options for the LMS server and identify difficulties in implementing the proposed changes.

In the CBA you will compare the cost of an in-house server with the cost of a server deployed in the cloud. The comparison needs to span a period of 5 years.

Your manager has provided you with a spreadsheet listing and summarising various costs for each of the two options you need to compare.

您将进行成本效益分析 (CBA) , 比较 LMS 服务器的不同部署选项,并确定实施 拟议更改的困难。

在 CBA 中,您将比较内部服务器的成本与部署在云中的服务器的成本。比较需要跨越 5 年的时间。

您的经理为您提供了一个电子表格列表, 并总结了您需要比较的两个选项中每个选 项的各种成本。

You are to calculate and fill in the missing financial data in the spreadsheet for the CBA comparison. Instructions which parts have to be completed can be found in the spreadsheet.

- •The cells in your spreadsheet showing the costs you calculated "must contain formulas" and not just number values.
- •In the meeting with your superior, you must be able to explain how you calculated the costs and interpret the resulting data.
- •In this assessment you will have to submit your initial (uncorrected) spreadsheet together with this assessment document in Moodle.

您将计算并填写电子表格中缺失的财务数据, 以便进行 CBA 比较。可以在电子表格中找到 必须完成的部分的说明。

- •电子表格中显示您计算的成本的单元格"必须包含公式",而不仅仅是数字值。
- •在与上级的会面中,您必须能够解释您是如何计算成本并解释结果数据的。
- •在此评估中,您必须在 Moodle 中提交您的 初始(未更正)电子表格以及此评估文档。



### What is CBA – Cost Benefit Analysis? 什么是 CBA – 成本效益分析?

- CBA Cost Benefit Analysis is a tool used to evaluate the potential benefits of a project or decision compared to the costs involved.
- You compare "how much it will cost compared to how much you will benefit from it."
- If the "benefits are more than the costs," it's usually a "good idea" to go ahead with the project or decision.
- CBA is best suited for making quick and simple financial decisions.

CBA - 成本效益分析是一种工具 ,用于评估项目或决策与所涉及 的成本相比的潜在收益。

你比较<mark>"它将花费多少与你将从中</mark> 受益多少"进行比较。

如果<mark>"收益大于成本",</mark>那么继续 进行项目或决策通常是一个"好主 意"。

CBA 最适合做出快速简单的财务 决策。

# Examples where a CBA can be used 可以使用 CBA 的示例

#### Buying a new car:

You compare the cost of buying a new car (including the purchase price, maintenance, and gas) to the benefits (like safety, reliability, and convenience) to see if it's worth it.

#### 购买新车:

您将购买新车的成本(包括购买价格、维护和汽油)与收益(如安全性、可靠性和便利性)进行比较,看看是否值得。

**Developing a new software program:** 

You analyze the cost of developing the software, including hiring programmers and purchasing licenses, and compare it to the benefits, such as increased efficiency, productivity, and revenue generation from selling the software.

#### 开发新的软件程序:

您分析开发软件的成本,包括雇用程序员和购 买许可证,并将其与收益进行比较,例如提高 效率、生产力和销售软件的创收。

#### **Building a new playground:**

You look at how much it will cost to build the playground, including materials and labour, and compare that to the benefits, such as providing a safe and fun place for kids to play.

#### 建造一个新的游乐场:

你看看建造游乐场的成本,包括材料和 劳动力,并将其与收益进行比较,例如 为孩子们提供一个安全有趣的玩耍场所。







#### Steps to follow when conducting CBA 进行 CBA 时应遵循的步骤

Step 1 :A CBA first identifies, quantifies, and adds all financial factors for consecutive time intervals:

第 1 步: CBA 首先识别、量化并添加连续时间间隔的所有财务因素:

➤ All the positive financial contributions (income, cost savings, etc.) - these refer to 'benefits'

➤ 所有积极的财务贡献(收入、成本节约等)——这些都是指"福利"

➤ All negative financial contributions (CAPEX, OPEX, etc.) - these refer to 'costs'

➤ 所有负财务贡献 (CAPEX,OPEX) ——这些 是指"成本"

CAPEX – capital expenditures

OPEX – operating expenditure (day-to-day costs)

CAPEX-资本支出 OPEX-运营支出(日常成本)

#### Steps to follow when conducting CBA 进行 CBA 时应遵循的步骤

### Step 2 :CBA will determine the financial impact by calculating:

- ➤ Cash flow = Benefits Costs
- ➤ Benefit cost ratio = Benefits / Costs

### 第 2 步: CBA 将通过计算以下方法确定财务影响:

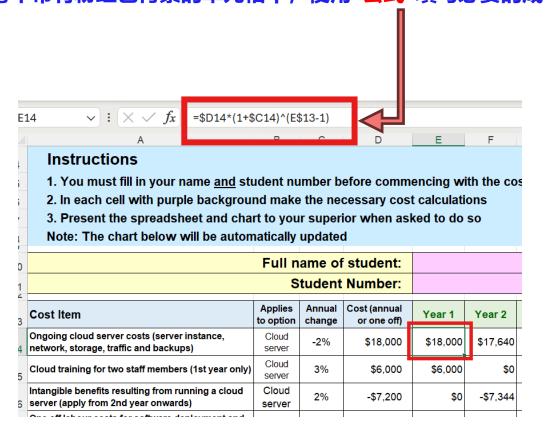
- ➤现金流 = 收益 成本
- ➤效益成本比=效益/成本

1. Open the excel sheet provided. You need to fill the necessary information in the excel sheet.

### 1. 打开提供的 Excel 工作表。您需要在 excel工作表中填写必要的信息。

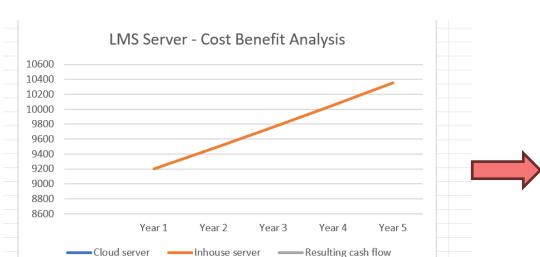
	Full n	ame of	student:					
	S	tudent	Number:					
Cost Item	Applies to option	Annual change	Cost (annual or one off)	Year 1	Year 2	Year 3	Year 4	Year 5
Ongoing cloud server costs (server instance, network, storage, traffic and backups)	Cloud server	-2%	\$18,000					
Cloud training for two staff members (1st year only)	Cloud server	3%	\$6,000	\$6,000	\$0	\$0	\$0	\$0
Intangible benefits resulting from running a cloud server (apply from 2nd year onwards)	Cloud server	2%	-\$7,200					
One off labour costs for software deployment and configuration (OS and LMS)	Both	3%	\$3,400					
Ongoing labour costs for software support (OS and LMS)	Both	3%	\$18,200					
Server purchase with OS license and 5 year vendor support	Inhouse server	0%	\$11,000					
Ongoing hardware, facilities and hardware related labour costs for inhouse sever	Inhouse server	3%	\$9,200	\$9,200	\$9,476	\$9,760	\$10,053	\$10,355
Ongoing Windows licensing costs (Software Assurance, CAL increase)	Inhouse server	2%	\$1,900					
		Costi	ng option		Agg	regate c	osts	
				Year 1	Year 2	Year 3	Year 4	Year 5
		Cloud server						
		Inhouse server		\$9,200	\$9,476	\$9,760	\$10,053	\$10,355
		Resulting cash flow						
		Benefit-cost ratio						
			ng cash flow = efit-cost ratio =					

2. In each cell with pink background fill in the necessary cost calculations using "formulas" 在每个带有粉红色背景的单元格中,使用"公式"填写必要的成本计算



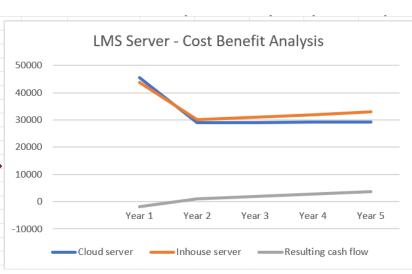
### 3. Present the spreadsheet and chart to your superior when asked to do so

### 4.Once you fill the necessary values the chart below will be automatically updated



### 3. 在被要求时向上级出示电子表格和图表

#### 4.填写必要值后,下面的图表将自动更 新



### Cost Items 成本项目

- 1. Ongoing cloud server costs (server instance, network, storage, traffic and backups)
- 2. Cloud training for two staff members (1st year only)
- 3. Intangible benefits resulting from running a cloud server (apply from 2nd year onwards)
- 4. One off labour costs for software deployment and configuration (OS and LMS)
- Ongoing labour costs for software support (OS and LMS)
- 6. Server purchase with OS license and 5 year vendor support
- 7. Ongoing hardware, facilities and hardware related labour costs for inhouse sever
- 8. Ongoing Windows licensing costs (Software Assurance, CAL increase)

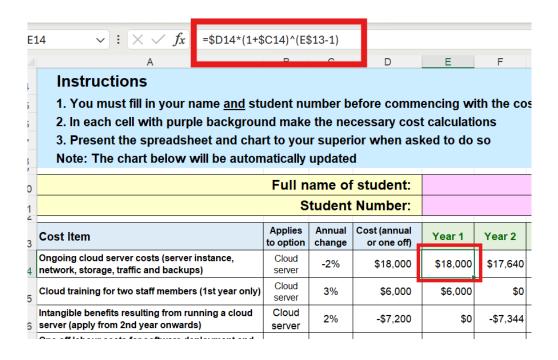
- 持续的云服务器成本(服务器实例、网络、 存储、流量和备份)
- 2. 两名员工的云培训(仅限第一年)
- 3. 运行云服务器带来的无形利益 (从第 2 年开始适用)
- 4. 软件部署和配置(操作系统和 LMS)的一次 性人工成本
- 5. 软件支持 (操作系统和 LMS) 的持续人工成 本
- 6. 购买具有操作系统许可证和 5 年供应商支持 的服务器
- 7. 内部服务器的持续硬件、设施和硬件相关劳 动力成本
- 8. 持续的 Windows 许可成本(软件保障、 CAL 增加)

# 1. Ongoing cloud server costs (server instance, network, storage, traffic and backups) 持续的云服务器成本 (服务器实例、网络、存储、流量和备份)

Cost Item   成本项目	Applies to option 选择	Annual change 年变化	Cost (annual or one off) 年变化	Year 1 一年级	Year 2 <b>二年级</b>	Year 3 三年级	Year 4 <b>四年级</b>	Year 5 五年级
Ongoing cloud server costs (server instance, network, storage, traffic and backups) 持续的云服务器成本(服务器实例、网络、存储、流量和备份)	Cloud server	-2%	\$18,000	\$18,000	\$17,640	\$17,287	\$16,941	\$16,603

1. Ongoing cloud server costs (server instance, network, storage, traffic and backups) 持续的云服务器成本 (服务器实例、网络、存储、流量和备份)

Formula = \$D14\*(1+\$C14)^(E\$13-1)



1. Ongoing cloud server costs (server instance, network, storage, traffic and backups) 持续的云服务器成本 (服务器实例、网络、存储、流量和备份)

#### =\$D14\*(1+\$C14)^(E\$13-1)

D14 = \$18,000  
C14 = -2%  
E13 = 1  
=
$$$18,000*(1+(-2%))^{(E13-1)}$$
  
= $$18,000*(1-0.02)^{(1-1)}$   
= $$18,000*(0.98)^{0}$ 

# 1. Ongoing cloud server costs (server instance, network, storage, traffic and backups) 持续的云服务器成本(服务器实例、网络、存储、流量和备份)

Year 3

$$D14 = $18,000$$
  $C14 = -2\%$   $E13 = 1$ 

```
Year 2
=$D14*(1+$C14)^(F$13-1)
=$18,000*(1+(-2\%))^{(2-1)}
=$18,000*(0.98)^1
=$17.640
 Year 4
=$D14*(1+$C14)^(H$13-1)
=$18,000*(1+(-2%))^(4-1)
=$18,000*(0.98)^3
= $16,941.46
```

#### =\$D14\*(1+\$C14)^(G\$13-1) =\$18,000\*(1+(-2%))^(3-1) =\$18,000\*(0.98)^2 =\$17,287.20 Year 5 =\$D14\*(1+\$C14)^(I\$13-1) =\$18,000\*(1+(-2%))^(5-1) =\$18,000\*(0.98)^4 =\$16,603,63

# 2. Cloud training for two staff members (1st year only) | 两名员工的云培训 (仅限第一年)

Cost Item   成本项目	Applies to option 选择	Annual change <b>年变化</b>	Cost (annual or one off) 年变化	Year 1 <b>一年级</b>	Year 2 <b>二年级</b>	Year 3 <b>三年级</b>	Year 4 <b>四年级</b>	Year 5 <b>五年级</b>
Cloud training for two staff members (1st year only)	Cloud server	3%	\$6,000	\$6,000	\$0	\$0	\$0	\$0

# 3. Intangible benefits resulting from running a cloud server (apply from 2nd year onwards) | 运行云服务器带来的无形利益(从第2年开始适用)

Cost Item   成本项目	Applies to option 选择	Annual change <b>年变化</b>	Cost (annual or one off) 年变化	Year 1 一年级	Year 2 <b>二年级</b>	Year 3 <b>三年级</b>	Year 4 <b>四年级</b>	Year 5 <b>五年级</b>
Intangible benefits resulting from running a cloud server (apply from 2nd year onwards)	Cloud server	2%	-\$7,200	\$0	-\$7,344	-\$7,491	-\$7,641	-\$7,794

# 3. Intangible benefits resulting from running a cloud server (apply from 2nd year onwards) |运行云服务器带来的无形利益(从第2年开始适用)

Formula 
$$= IF(E\$13>1,\$D16*(1+\$C16)^{(}E\$13-1),0)$$
 
$$Year 1$$
 
$$= IF(E\$13>1,\$D16*(1+\$C16)^{(}E\$13-1),0)$$
 
$$= IF(E\$13>1,\$D16*(1+\$C16)^{(}E\$13-1),0)$$
 
$$= IF(1>1, -\$7200*(1+0.02)^{(}1-1), 0)$$
 
$$= IF(FALSE, -\$72001, 0)$$
 
$$= IF(FALSE, -\$7200, 0)$$

# 3. Intangible benefits resulting from running a cloud server (apply from 2nd year onwards) |运行云服务器带来的无形利益(从第2年开始适用)

```
Cost (Year 2) = IF(2>1, -\$7,200*(1+0.02)^{(2-1)}, 0)
= IF(TRUE, -\$7,200*(1+0.02)^{(2-1)}, 0)
≈ -$7,344
Cost (Year 3) = IF(3>1, -$7,200*(1+0.02)^{(3-1)}, 0)
= IF(TRUE, -$7,200*(1 + 0.02)^(3-1), 0)
≈ -$7.491
Cost (Year 4) = IF(4>1, -\$7,200*(1+0.02)^{(4-1)}, 0)
= IF(TRUE, -\$7,200*(1+0.02)^{(4-1)}, 0)
≈ -$7,641
Cost (Year 5) = IF(5>1, -\$7,200*(1+0.02)^{(5-1)}, 0)
= IF(TRUE, -\$7,200*(1+0.02)^{5-1}, 0)
 -$7.794
```

# 4. One off labour costs for software deployment and configuration (OS and LMS | 软件部署和配置 (操作系统和 LMS) 的一次性人工成本

Cost Item   成本项目	Applies to option 选择	Annual change 年变化	Cost (annual or one off) 年变化	Year 1 一年级	Year 2 <b>二年级</b>	Year 3 <b>三年级</b>	Year 4 <b>四年级</b>	Year 5 五年级
One off labour costs for software deployment and configuration (OS and LMS	Both	3%	\$3,400	\$3,400	\$0	\$0	\$0	\$0

# 4. One off labour costs for software deployment and configuration (OS and LMS | 软件部署和配置 (操作系统和 LMS) 的一次性人工成本

Formula = $IF(E$13 <= 1, $D17*(1 + $C17)^(E$13-1), 0)$ 

Cost (Year 1) = 
$$IF(1 \le 1, \$3,400*(1+0.03)^{(1-1)}, 0)$$
  
=  $IF(TRUE, \$3,400*(1+0.03)^{(1-1)}, 0)$   
=  $\$3,400$ 

Cost (Year 2) = 
$$IF(2 \le 1, \$3,400*(1+0.03)^{(2-1)}, 0)$$
  
=  $IF(FALSE, \$3,400*(1+0.03)^{(2-1)}, 0)$ 

Cost (Year 3) = 
$$IF(3 \le 1, \$3,400*(1+0.03)^{(3-1)}, 0)$$
  
=  $IF(FALSE, \$3,400*(1+0.03)^{(3-1)}, 0)$ 

```
Cost (Year 4) = IF(4 <= 1, \$3,400*(1 + 0.03)^(4-1), 0)
= IF(FALSE, \$3,400*(1 + 0.03)^(4-1), 0)
```

Cost (Year 5) = 
$$IF(5 <= 1, \$3,400*(1 + 0.03)^(5-1), 0)$$
  
=  $IF(FALSE, \$3,400*(1 + 0.03)^(5-1), 0)$ 

# 5. Ongoing labour costs for software support (OS and LMS) | 软件支持(操作系统和 LMS)的持续人工成本

Cost Item   成本项目	Applies to option 选择	Annual change 年变化	Cost (annual or one off) 年变化	Year 1 <b>一年级</b>	Year 2 <b>二年级</b>	Year 3 <b>三年级</b>	Year 4 <b>四年级</b>	Year 5 五年级
Ongoing labour costs for software support (OS and LMS)	Both	3%	\$18,200	\$18,200	\$18,746	\$19,308	\$19,888	\$20,484

# 5. Ongoing labour costs for software support (OS and LMS) | 软件支持(操作系统和 LMS)的持续人工成本

Formula =  $$D18*(1+$C18)^(E$13-1)$ 

```
D18 = $18,200
C18 = 3%
E13 = 1 (Year 1)
```

```
Cost (Year 1) = $18,200 * (1 + 0.03)^{(1-1)}
= $18,200 * (1 + 0.03)<sup>0</sup>
= $18,200
Cost (Year 2) = $18,200 * (1 + 0.03)^{(2-1)}
= $18,200 * (1 + 0.03)<sup>1</sup>
≈ $18,746
Cost (Year 3) = $18,200 * (1 + 0.03)^{(3-1)}
= $18,200 * (1 + 0.03)^2
  $19,308
```

```
Cost (Year 4) = $18,200 * (1 + 0.03)^{(4-1)}
= $18,200 * (1 + 0.03)^{3}
= $19,888

Cost (Year 5) = $18,200 * (1 + 0.03)^{(5-1)}
= $18,200 * (1 + 0.03)^{4}
= $20,484
```

# 6. Server purchase with OS license and 5 year vendor support | 购买具有操作系统许可证和 5 年供应商支持的服务器

Cost Item   成本项目	Applies to option 选择	Annual change <b>年变化</b>	Cost (annual or one off) 年变化	Year 1 <b>一年级</b>	Year 2 <b>二年级</b>	Year 3 <b>三年级</b>	Year 4 <b>四年级</b>	Year 5 五年级
Server purchase with OS license and 5 year vendor support	Inhouse server	0%	\$11,000	\$11,000	\$0	\$0	\$0	\$0

# 6. Server purchase with OS license and 5 year vendor support | 购买具有操作系统许可证和 5 年供应商支持的服务器

#### Formula

=IF(E\$13<=1,\$D19\*(1+\$C19)^(E\$13-1),0)

```
D19 = $11,000
C19 = 0\%
E13 = 1 (Year 1)
    Cost (Year 1) = IF(1 \le 1, \$11,000*(1+0)^{(1-1)}, 0)
    = IF(TRUE, $11,000*(1+0)^{(1-1)}, 0)
    = $11,000
   Cost (Year 2) = IF(2 \le 1, \$11,000*(1+0)^{(2-1)}, 0)
    = IF(FALSE, $11,000*(1+0)^{(2-1)}, 0)
    = $0
   Cost (Year 3) = IF(3 \le 1, $11,000*(1+0)^{(3-1)}, 0)
   = IF(FALSE, $11,000*(1+0)^{(3-1)}, 0)
    =$0
```

```
Cost (Year 4) = IF(4 <= 1, $11,000*(1+0)^{(4-1)}, 0)

= IF(FALSE, $11,000*(1+0)^{(4-1)}, 0)

= $0

Cost (Year 5) = IF(5 <= 1, $11,000*(1+0)^{(5-1)}, 0)

= IF(FALSE, $11,000*(1+0)^{(5-1)}, 0)

= $0
```

# 7.Ongoing hardware, facilities and hardware related labour costs for inhouse sever | 内部服务器的持续硬件、设施和硬件相关劳动力成本

Cost Item   成本项目	Applies to option 选择	Annual change <b>年变化</b>	Cost (annual or one off) 年变化	Year 1 一年级	Year 2 <b>二年级</b>	Year 3 <b>三年级</b>	Year 4 <b>四年级</b>	Year 5 五年级
Ongoing hardware, facilities and hardware related labour costs for inhouse sever	Inhouse server	3%	\$9,200	\$9,200	\$9,476	\$9,760	\$10,053	\$10,355

# 8. Ongoing Windows licensing costs (Software Assurance, CAL increase) | 持续的 Windows 许可成本 (软件保障、CAL 增加)

Cost Item   成本项目	Applies to option 选择	Annual change <b>年变化</b>	Cost (annual or one off) 年变化	Year 1 一年级	Year 2 <b>二年级</b>	Year 3 <b>三年级</b>	Year 4 <b>四年级</b>	Year 5 五年级
Ongoing Windows licensing costs (Software Assurance, CAL increase)	Inhouse server	2%	\$1,900	\$1,900	\$1,938	\$1,977	\$2,016	\$2,057

# 8. Ongoing Windows licensing costs (Software Assurance, CAL increase) | 持续的 Windows 许可成本 (软件保障、CAL 增加)

Formula

=\$D21\*(1+\$C21)^(E\$13-1)

```
D21 = $1,900
C21 = 2\%
E13 = 1 (Year 1)
Cost (Year 1) = $1,900 * (1 + 0.02)^{(1-1)}
= $1,900 * (1 + 0.02)<sup>0</sup>
= $1,900
Cost (Year 2) = $1,900 * (1 + 0.02)^{(2-1)}
= $1,900 * (1 + 0.02)^1
Cost (Year 3) = $1,900 * (1 + 0.02)^{(3-1)}
= $1,900 * (1 + 0.02)<sup>2</sup>
≈ $1,977
```

```
Cost (Year 4) = $1,900 * (1 + 0.02)^{(4-1)}
= $1,900 * (1 + 0.02)^{3}
$2,016

Cost (Year 5) = $1,900 * (1 + 0.02)^{(5-1)}
= $1,900 * (1 + 0.02)^{4}
$2,057
```

#### Aggregate costs – Cloud server | 聚合成本 – 云服务器

Formula =SUMIFS(E\$14:E\$21,\$B\$14:\$B\$21,\$C25)+SUMIFS(E\$14:E\$21,\$B\$14:\$B\$21,"Both")

Cloud Server Cost (Year 1) = 
$$$18,000 + $6000 + $3400 + $18200 = $45600$$
  
Cloud Server Cost (Year 2) =  $$17,640 + (-$7344) + $18746 = $29042$ 

Costing option		Aggregate costs								
	Year 1	Year 1 Year 2 Year 3 Year 4 Year 5								
Cloud server	\$45,600	\$29,042	\$29,105	\$29,188	\$29,293					
Inhouse server	\$43,700	\$30,160	\$31,045	\$31,957	\$32,896					
Resulting cash flow	-\$1,900	\$1,118	\$1,941	\$2,769	\$3,602					
Benefit-cost ratio	0.96	1.04	1.07	1.09	1.12					

#### Aggregate costs – Resulting cash flow | 总成本 – 产生的现金流

Resulting cash flow (Year 1) = \$43700 - \$45600 = \$1900

Resulting cash flow (Year 2) = \$30160 - \$29042 = \$1118

Costing option		Aggregate costs							
	Year 1	Year 1 Year 2 Year 3 Year 4 Year 5							
Cloud server	\$45,600	\$29,042	\$29,105	\$29,188	\$29,293				
Inhouse server	\$43,700	\$30,160	\$31,045	\$31,957	\$32,896				
Resulting cash flow	-\$1,900	\$1,118	\$1,941	\$2,769	\$3,602				
Benefit-cost ratio	0.96	1.04	1.07	1.09	1.12				

#### Aggregate costs – Benefit cost ratio | 总成本 – 效益成本比

Formula =IF(OR(E\$25="", E\$26=""), "", IF(E\$25=0, 0, E\$26/E\$25))

Resulting cash flow (Year 1) =  $$43700 / $45600 \approx 0.96$ 

Resulting cash flow (Year 2) =  $$30160 / $29042 \approx 1.04$ 

Costing option		Aggregate costs								
	Year 1	Year 2	Year 3	Year 4	Year 5					
Cloud server	\$45,600	\$29,042	\$29,105	\$29,188	\$29,293					
Inhouse server	\$43,700	\$30,160	\$31,045	\$31,957	\$32,896					
Resulting cash flow	-\$1,900	\$1,118	\$1,941	\$2,769	\$3,602					
Benefit-cost ratio	0.96	1.04	1.07	1.09	1.12					
	Cloud server Inhouse server Resulting cash flow	Cloud server \$45,600 Inhouse server \$43,700 Resulting cash flow -\$1,900	Year 1         Year 2           Cloud server         \$45,600         \$29,042           Inhouse server         \$43,700         \$30,160           Resulting cash flow         -\$1,900         \$1,118	Year 1         Year 2         Year 3           Cloud server         \$45,600         \$29,042         \$29,105           Inhouse server         \$43,700         \$30,160         \$31,045           Resulting cash flow         -\$1,900         \$1,118         \$1,941	Year 1         Year 2         Year 3         Year 4           Cloud server         \$45,600         \$29,042         \$29,105         \$29,188           Inhouse server         \$43,700         \$30,160         \$31,045         \$31,957           Resulting cash flow         -\$1,900         \$1,118         \$1,941         \$2,769					

## Necessary formulas to fill the excel sheet | 填写 excel 工作表的必要公式

1. =\$D14\*(1+\$C14)^(E\$13-1)



2. The answer is there in the excel

3. = $IF(E$13>1,$D16*(1+$C16)^(E$13-1),0)$ 

4. =IF(E\$13<=1,\$D17\*(1+\$C17)^(E\$13-1),0)

5. =\$D18\*(1+\$C18)^(E\$13-1)

6. =IF(E\$13<=1,\$D19\*(1+\$C19)^(E\$13-1),0)

7. The answer is there in the excel

8. =\$D21\*(1+\$C21)^(E\$13-1)

Cost Item	Applies to option	Annual change	Cost (annual or one off)	Year 1	Year 2	Year 3	Year 4	Year 5
Ongoing cloud server costs (server instance, network, storage, traffic and backups)	Cloud server	-2%	\$18,000					
Cloud training for two staff members (1st year only)	Cloud server	3%	\$6,000	\$6,000	\$0	\$0	\$0	\$0
Intangible benefits resulting from running a cloud server (apply from 2nd year onwards)	Cloud server	2%	-\$7,200					
One off labour costs for software deployment and configuration (OS and LMS)	Both	3%	\$3,400					
Ongoing labour costs for software support (OS and LMS)	Both	3%	\$18,200					
Server purchase with OS license and 5 year vendor support	Inhouse server	0%	\$11,000					
Ongoing hardware, facilities and hardware related labour costs for inhouse sever	Inhouse server	3%	\$9,200	\$9,200	\$9,476	\$9,760	\$10,053	\$10,355
Ongoing Windows licensing costs (Software Assurance, CAL increase)	Inhouse server	2%	\$1,900					

=SUMIFS(E\$14:E\$21,\$B\$14:\$B\$21,\$C25)+SUMIFS(E\$14:E\$21,\$B\$14:\$B\$21,"Both")

=IF(OR(E\$25="", E\$26=""), "", ROUND(E\$26 - E\$25, 0))

=IF(OR(E\$25="", E\$26=""), "", IF(E\$25=0, 0, E\$26/E\$25))



Costing option	Aggregate costs					
	Year 1	Year 2	Year 3	Year 4	Year 5	
Cloud server						
Inhouse server	\$9,200	\$9,476	\$9,760	\$10,053	\$10,355	
Resulting cash flow						
Benefit-cost ratio						
D 10 1.0	D 51 11		1 0		-	

Resulting cash flow = Benefits [ In-house Server ] - Costs [ Cloud Server ]

Benefit-cost ratio = Benefits [ In-house Server ] / Costs [ Cloud Server ]

### Write your name and student number | 写下您的姓名和学号

(Note: The initial values will be changed once you add the ID.)

(注意:添加 ID 后,初始值将更改。)

1. 为了证明您已经确定缺少财务数据,请截取电子表格数据的两张屏幕截图(图片)。第一个屏幕截图必须包含显示您的姓名、学号、成本项目和总成本表的单元格和表格。第二个屏幕截图必须显示生成的图表。 将两个屏幕截图粘贴到下面的答案区域中。

To demonstrate you have determined the missing financial data take *two* screenshots (pictures) of the spreadsheet data. The first screenshot must include cells and tables showing your name, student number, cost items and the aggregate cost table. The second screenshot must show the resulting chart.

Paste the two screenshots in the answer area below.

ANSWER							SATIS	FACTO	RY	UNSATISFACTO
			G							
										າ
	Full n	ame of	student:						,	
	S	tudent	Number:							
Cost Item	Applies to option	Annual change	Cost (annual or one off)	Year 1	Year 2	Year 3	Year 4	Year 5		
Ongoing cloud server costs (server instance, network, storage, traffic and backups)	Cloud server	-2%	\$18,000	\$18,000	\$17,640	\$17,287	\$16,941	\$16,603		
Cloud training for two staff members (1st year only)	Cloud server	3%	\$6,000	\$6,000	\$0	\$0	\$0	\$0		
Intangible benefits resulting from running a cloud server (apply from 2nd year onwards)	Cloud server	2%	-\$7,200	\$0	-\$7,344	-\$7,491	-\$7,641	-\$7,794	(	5
One off labour costs for software deployment and configuration (OS and LMS)	Both	3%	\$3,400	\$3,400	\$0	\$0	\$0	\$0		
Ongoing labour costs for software support (OS and LMS)	Both	3%	\$18,200	\$18,200	\$18,746	\$19,308	\$19,888	\$20,484		
Server purchase with OS license and 5 year vendor support	Inhouse server	0%	\$11,000	\$11,000	\$0	\$0	\$0	\$0		
Ongoing hardware, facilities and hardware related labour costs for inhouse sever	Inhouse server	3%	\$9,200	\$9,200	\$9,476	\$9,760	\$10,053	\$10,355		
Ongoing Windows licensing costs (Software Assurance, CAL increase)	Inhouse server	2%	\$1,900	\$1,900	\$1,938	\$1,977	\$2,016	\$2,057		1

	Costing option		Agg	regate o	osts	
		Year 1	Year 2	Year 3	Year 4	Year 5
	Cloud server	\$45,600	\$29,042	\$29,105	\$29,188	\$29,293
	Inhouse server	\$43,700	\$30,160	\$31,045	\$31,957	\$32,896
	Resulting cash flow	-\$1,900	\$1,118	\$1,941	\$2,769	\$3,602
	Benefit-cost ratio	0.96	1.04	1.07	1.09	1.12
	Resulting cash flow = Benefit-cost ratio =	Benefits [ I	n-house Sei n-house Sei			
	LMS Se	erver - C	ost Bene	efit Anal	vsis	
	000	erver - C	ost Bene	efit Anal	ysis	
100	000	erver - C	ost Bene	efit Anal	ysis	_
400 300	000	erver - C	ost Bene	efit Anal	ysis	<u>-</u>
500 400 300 200	1000	erver - C	ost Bene	efit Anal	ysis	<u>-</u>

Comparing the cost of an in-house with a cloud server describe what conclusions can be drawn from the results of your CBA results. Limit your answer to between 50 – 150 words in total (excluding references). Type your response in the answer area below. 比较内部服务器和云服务器的成本,描述从 CBA 结果中可以得出什么结论。将您的答案限制在总共 50 到 150 介单词之间(不包括参考文献)。

在下面的回答区域中输入您的回复。

ANCWED

0.4T1054.0T051/

- Is the cost difference between the inhouse and the cloud server significant?
  - 1. 内部服务器和云服务器之间的成本差异是否显着

The costs of an on-premises server and a cloud server appear similar, despite the cloud solution. At first site there is not much difference.

尽管采用了<u>云解决</u>方案,但本地服务器和云服务器的成本似乎相似。在第一个站点没有太大区别。

Ongoing labour costs | 持续的劳动力成本

Hardware and software related expenses | 硬件和软件相关费用

Licensing fees | 许可费

3. Which cost item in the list is hardest to estimate and therefore has the biggest uncertainty? 列表中哪个成本项目最难估算,因此不确定性最大?

What are the main costs contributions in each solution?

每个解决方案中的主要成本贡献是什么?

Intangible benefits resulting from running a cloud server.

Intangible benefits may include factors such as improved productivity, flexibility, scalability, and agility gained from utilizing cloud services.

• 运行云服务器带来的无形利益。

无形的好处可能包括通过利用<u>云服务</u>获得的提高生产力、灵活性、可扩展性和敏捷性等因素。

- 据,说明为什么你认为一种解决方案比另一种解决方案更有益。
- Immediate benefits for deploying cloud technologies are relatively small,
   the long term and strategic benefits (agility, scalability, minimal capital

Provide arguments why you think one solution is more beneficial than the other. 提供论

- expenditure) by far outweigh any other concerns.
- In-house deployment:
   Though it provides YAT College to be fully in control of the environment, it cannot

Cloud deployment:

- compete with the agility and long-term savings of a cloud solution.

  System unavailability would be there, will have to consider the cost items for the hardware, might not have backup and data recovery option.
- 云部署:
   部署云技术的直接好处相对较小,
- 长期和战略利益(敏捷性、可扩展性、最低资本支出)远远超过任何其他问题。 内部部署:

- 系统不可用,必须考虑硬件的成本项目,可能没有备份和数据恢复选项。

of YAT College (if it does not fit in, explain why it doesn't). 解释您在 Q2.4 中选择的解决方案如何符合 YAT College 的战略目标和目标(如果它不适合,请解释为什么不适合)。

• A cloud-based solution - aligns with the ICT goals of supporting business growth by

Explain how the solution you chose in Q2.4 fits in with the strategic goals and objectives

enhancing reliability, agility, and reducing the need for in-house server infrastructure.

It also complies with the ICT objectives of a cloud deployment. These ICT goals and objectives support the strategic business goals and objectives.

• An in-house deployment – it goes against the ICT goal.

Examples: System unavailability would be there, will have to consider the cost items

- for the hardware, might not have backup and data recovery option.

  基于云的解决方案 符合 ICT 目标,即通过提高可靠性、敏捷性和减少对内部服务器基础设施的需求来支持业务增长。它还符合<u>云部署</u>的ICT 目标。这些ICT 目标和目
- 内部部署 这与 ICT 目标背道而驰。
   示例:系统不可用,必须考虑硬件的成本项目,可能没有备份和数据恢复选项。

的支持战略业务目标和目标。

Describe what difficulties you anticipate when integrating the new <u>cloud-based</u> LMS server into the existing IT environment at YAT. Address each of the points listed below. Limit your answer to between 150 – 400 words in total (excluding optional references). Type your response in the corresponding sections of the answer area below. 描述在将新的基于云的 LMS 服务器集成到 YAT 的现有 IT 环境中时,您预计会遇到哪些困难。解决下面列出的每一点。将您的答案限制在总共 150 到 400 字之间(不包括可选的参考文献)。在下面答案区域的相应部分输入您的回复。

ANSWER	SATISFACTORY	UNSATISFACTORY

- 1. Describe the difficulties you anticipate with training of ICT staff for the new system.
  - 1. 描述您预计在为新系统培训 ICT 工作人员方面遇到的困难。
  - It's important to train technical staff in cloud technologies before they start working with them. This helps them do their work well and efficiently.

Difficulty: Making sure staff is available for training at the right times.

• 在技术人员开始使用云技术之前,对他们进行培训非常重要。这有助于他们出色有 效地完成工作。

困难:确保员工在正确的时间接受培训。

- Describe what difficulties you anticipate when implementing required network changes.
   描述在实施所需的网络更改时预计会遇到哪些困难。
  - Before making any technical changes, we need a cloud subscription.
  - Then, we'll design a network to make sure the cloud network and our existing network can work together. Finally, a network link to the cloud environment will set up and test it prior to the deployment of the server.

Difficulty: Making sure we have the cloud subscription and resources needed for network setup when we need them.

- 在进行任何技术更改之前,我们需要云订阅。
- 然后,我们将设计一个网络,以确保<u>云网络</u>和我们现有的网络可以协同工作。最后,在部署服务器之前,将设置和测试到<u>云环境</u>的网络链接。

难点:确保我们在需要时拥有网络设置所需的云订阅和资源。

服务器时预计会遇到哪些困难。

• We need to design the server and plan how it will work. <u>And,</u> the team needs to set up

Describe what difficulties you anticipate when installing the new server. 描述您在安装新

the network for the new server and make sure staff know how to use cloud services.
 Also, the team needs to coordinate with a vendor to install and set up the LMS application and move existing data to the new server.

Example: Make sure that the vendor can install LMS application and do the necessary configurations.

• 我们需要设计服务器并计划它的工作方式。而且,团队需要为新服务器设置网

- *络,并确保员工知道如何使用云服务。 此外,团队需要与供应<u>商协调</u>安装和设置 LMS 应用程序,并将现有数据移动到新服务器。*

Difficulty: Making sure everyone is involved (Coordination)

| 难度:确保每个人都参与进来(协调) | |

*示例:确保供应商可以安装* LMS *应用程序并进行必要的配置。* 

- 4. Describe what security issues you may face when deploying the new LMS environment. 描述您在部署新的 LMS 环境时可能面临的安全问题。
- We need to make sure the new LMS is as secure as YAT College wants it to be.
  - This means setting up security measures for accessing and managing the cloud environment.

Difficulty: Making sure our current security procedures cover the cloud environment access and administration.

- 我们需要确保新的LMS 与YAT College 希望的那样安全。
- *这意味着设置用于访问和管理<u>云环境</u>的安全措施。*

困难:确保我们当前的安全程序涵盖<u>云环境</u>访问和管理。

5. Describe the difficulties you anticipated during the system migration and the cutover from the old to the new environment. 描述您在系统迁移和从旧环境切换到新环境期间预期的困难。

- Migrating to cloud might take longer than we think, which could cause problems for the college.
- If we run into unexpected technical problems, we might have to go back to the old system.

Difficulty: Figuring out how long it will take to move everything to cloud, and what to do if things don't go as planned.

- *迁移到<u>云可能</u>需要比我们想象的更长的时间,这可能会给学院带来问题。*
- 如果我们遇到意想不到的技术问题,我们可能不得不回到旧系统。

难度:弄清楚将所有内容迁移到云端需要多长时间,以及如果事情没有按计划进行该

怎么办。

4	4	1

To demonstrate you have requested a meeting, take a screenshot of the email that you have sent to your superior. This email must follow workplace etiquette and the screenshot must show:

- Recipients, date and time
- Subject line relevant to the purpose of the email
- The message body explaining the purpose of the <u>request</u>
- Closing paragraph

Paste the screenshot in the answer area below.

ANSWER SATISFACTORY UNSATISFACTORY

Dear Teacher,

I hope you are doing well.

I would like to request a meeting with you to discuss the findings in assessment 4. Could you please let me know a convenient date and a time that work for you?

Thank you for considering my request.



Best regards, [Your Name]

No need to send the email or no need to send this to the teacher via WeChat.

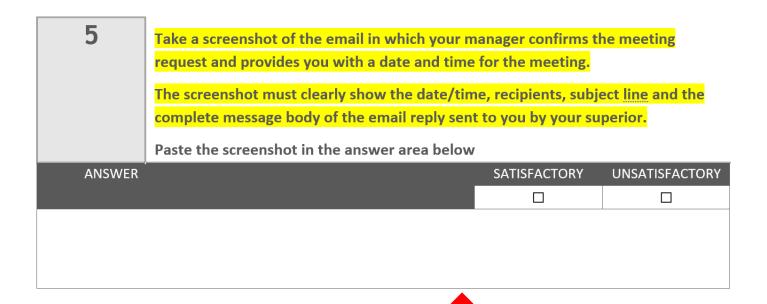
Type an email requesting a date and time from the teacher for the Observation meeting and get a screenshot

An example email is given here.

无需发送电子邮件,也无需通 过微信将其发送给老师。

键入一封电子邮件,要求教师 提供观察会议的日期和时间, 并获取屏幕截图

此处给出了一个示例电子邮件。



I will arrange a date and time for the observation meeting and give you all a common screenshot to attach here.

No need to get the screenshot individually from the teacher.

我将安排观察会议的日期和时间,并给大家 一个通用的截图,附在这里。

无需从老师那里单独获取屏幕截图。

In each of the three rows of the table below state either 'Yes' or 'No' in the blue highlighted leftmost column to indicate your readiness for the meeting. Note that the meeting (see Part 2) will be aborted if you are not ready or if you are unprepared. 在下表的三行中,每行在最左边突出显示的蓝色列中注明"是"或"否",以指示您已准备好参加会议。请注意,如果您没有准备好或没有准备好,会议(请参阅第 2 部分)将中止。

Ite	m	Yes/No
1.	I am prepared and ready to present and discuss the outcome of my CBA	Yes
	investigation with my superior	
2.	I have completed relevant sections in in the 'Assessment Task 4 (Part 2):	Yes
	Feedback Record' document in preparation of this meeting	
3.	I am ready to take notes during the meeting and record relevant	Yes
	feedback in the 'Assessment Task 4 (Part 2): Feedback Record' document	

Mention "Yes" in the table stating that you have completed the work, and you are ready to discuss the findings with the teacher.

在表格中提到 "是",说明您已 经完成了工作, 并且您已准备好 与老师讨论调查 结果。 Question 7 and 8 you can complete after the observation meeting. Participating for the

observation meeting is mandatory.

问题 7 和 8 您可以在观察会议后完成。 必须参加观察会议。

To demonstrate you have successfully recorded your superiors' feedback,

insert screenshots of the 'Assessment Task 4 (Part 2): Feedback Record'

showing the notes you have taken during the meeting.

Paste the screenshots in the answer area below. 为了证明您已经成功记录了上级的反馈,

请插入"评估任务 4 (第 2 部分) : 反馈记录"的屏幕截图,显示您在会议期间所做的笔记。

将屏幕截图粘贴到下面的答案区域。

Record the feedback from your superior in this column

(Must be completed during the meeting)

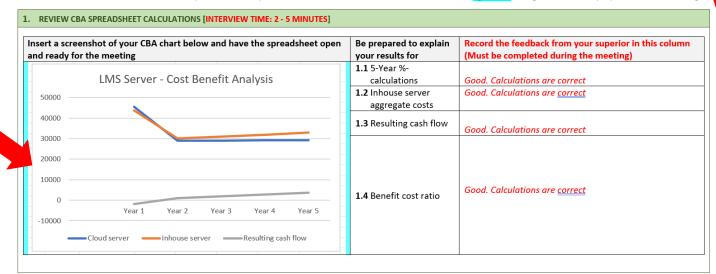
在此专栏中记录上级的反馈 (必须在会议期间完成)

# Insert a screenshot of your CBA chart.

插入 CBA 图表的屏幕截图。

#### Assessment Task 4 (Part 2): Feedback Record

NOTE: The observation assessment will not proceed unless you and have filled in relevant details in all cells with light-blue background and are prepared for the meeting.



#### 2. INTERPRETING THE CBA RESULTS [INTERVIEW TIME: 2 - 5 MINUTES]

Comparing the cost of an in-house with a cloud	For each question present your response in form of 1	Record the feedback from your superior in this column
server, prepare answers to the following	- 3 bullet points below. Be prepared to explain and	(Must be completed during the meeting)
questions	justify your answer during the meeting.	
<b>2.1</b> Is the cost difference between the inhouse		Overall understanding is good
and the cloud server significant?		
2.2 What are the main costs contributions in		Overall understanding is good
each solution?		
2.3 Which cost item in the list is hardest to		Overall understanding is good
estimate and therefore has the biggest		
uncertainty?		

For each question present your response in form of 1 - 3 bullet points below. Be prepared to explain and justify your answer during the meeting.

对于每个问题,请在下面以 1 - 3 个要点的形式 呈现您的回答。准备好在会议期间解释和证明你 的答案。 Record the feedback from your superior in this column

(Must be completed during the meeting)

在此专栏中记录上级的反馈 (必须在会议期间完成)

For each of the listed topics, what do you see as the main difficulty when implementing a cloud-based LMS server	For each question present your response in form of 1 - 3 bullet points below. Be prepared to explain and justify your answer during the meeting.	Record the feedback from your superior in this column (Must be completed during the meeting)
3.1 Describe the difficulties you anticipate with	justify year another daming the meeting.	Overall understanding is good
training of ICT staff for the new system.		
3.2 Describe what difficulties you anticipate		Overall understanding is good
when implementing required network		
changes.		
3.5 Describe the difficulties you anticipated		Overall understanding is good
during the system migration and the cutover		
from the old to the new environment.		

Date	Student Name	Student ID	Student Signature	Superior	Name	
				Network Manager	Dev	

Include your information here Date, Student ID , Name

在此处包含您的信息 日期、学号、姓名 For each question present your response in form of 1 - 3 bullet points below. Be prepared to explain and justify your answer during the meeting.

对于每个问题,请在下面以 1 - 3 个要点的形式 呈现您的回答。准备好在会议期间解释和证明你 的答案。 Record the feedback from your superior in this column

(Must be completed during the meeting)

生此专栏中记录上级的反馈 (必须在会议期间完成)

To demonstrate you have successfully completed the observation assessment, open the observation report (PDF file) emailed to you by the assessor and take a screenshot of the report. The screenshot must show the complete report.

Paste the screenshot in the answer area below. 为了证明您已成功完成观察评估,请打开评估员通过电子邮件发送给您的观察报告 (PDF 文件) 并截取报告的屏幕截图。屏幕截图必须显示完整的报告。将屏幕截图粘贴到下面的答案区域中。

After the observation meeting, teacher will send you the "Observation Report" (a PDF document) including the feedback and assessment outcomes.

You can get a screenshot of that and paste under question 8

观摩会结束后,老师会向你发送「观摩报告」(PDF文件), 包括反馈和评估结果。

您可以获取该屏幕截图并粘贴 到问题 8 下

## Assessment Task 4: Investigate the effects of change (Part 2)

#### **Observation Report**

OBSERVATION COMPLETED	SATISFACTORY	NOT SATISFACTORY
Outlined the purpose and goal of the meeting	$\boxtimes$	
Presented highlights of the draft investigation and shared information about completed work clearly and correctly	×	
Explained and interpret numerical data to assess financial implications of changes	$\boxtimes$	
Used effective listening and questioning techniques to obtained feedback information	$\boxtimes$	
Summarised and recorded feedback for inclusion in the final report document	$\boxtimes$	
Communicated using plain English effectively articulating technical ideas	$\boxtimes$	
COMMENTS AND FEEDBACK		

#### COMMENTS AND FEEDBACK

# Do not use this screenshot 请勿使用此屏幕截图

Overall understanding and effort is good

ASSESSMENT OUTCOME					
⊠ Satisfactory					
☐ Not Satisfactory (resubmission required) – Due date:					
DATE	18.04.2023	START	2.30 PM	FINISHED	2.45PM
STUDENT		STUDENT			
NAME & ID		SIGNATURE			
ASSESSOR NAME	Devindya Sathsarani	ASSESSOR SIGNATURE	Devindya!		