University of Leicester  
Department of Informatics CO7218/CO4218/CO7518 - Financial Services Information Systems/Business Information Systems 2020/2021

Assignment 1

**Formulas for computing the TCO 5-YEAR costs**

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| **Product A** | **We compute the cost of each sub-product:**  **A1 \* NumberofUsers = A1License**  **A2 \* NumberofUsers = A2License**  **A3 \* NumberofCpus = A3License**  **A4 \* NumberofCpus = A4License**  **A5 \* NumberofCpus = A5License**  **A6 \* NumberofCpus = A6License**  // calculate the maintenance fee on customization   * **(15%\*customizationFee\*maintenanceYears)=maintenanceFeeoverCustomization**   **Where**   * **customizationFee = $200,000** * **maintenanceYears = 4 because the maintenance starts from year 2**   **If NumberofUsers = 300, then the number of CpusRequired = 2, so we compute the cost of CPUs as:**   * **cpuCost = (cpuRequired \* cpuPrice) where cpuPrice = $5000**   **We then compute the maintenance fee on the cpuCost at a rate of 10% for 4 years since The CPU’s (H/W) maintenance fee starts from the second year.**   * **10% \* cpuCost** * **TotalCPUCosts = (10% \* cpuCost) + cpuCost**   **License Total = ((A1License + A2License + A3License + A4License + A5License + A6License) + (cpuCost))**  **// calculate disaster recovery licence >> 30% of production env**  **disasterRecovery = ((30 / 100) \* (LicenseTotal))**  **//calculate annual 18% maintenance fee over final product license fee::**  **FinalProductLicense = LicenseTotal + disasterRecovery;**  **maintenanceFee = (maintenanceYears \* ((18 / 100) \* (FinalProductLicense)))**  **// calculate total hardware costs**  **HardWareCosts = ((cpuCost + cpuMaintenanceFee) \* 2)**  **// compute the TCO:**  **totalOwnerShipCosts=cpuCost+FinalProductLicense+ maintenanceFeeoverCustomization + cpuMaintenanceFee + HardWareCosts** |
| **Product B** | **Given a licenceFee of $300 and subscriptionFee of $350, we can use a sample number of users as 300 represented by numberofUsers**  **// calculate the maintenance fee of the cpus at a rate of 10% for 4 years::**  **cpuMaintenanceFee = (((10 / 100) \* cpuCost) \* 4)**  **// calulate the total license costs for B:**  **LicenseTotal=((numberofUsers \* BlicenseFee) + (5 \* (BSubscriptionFee \* numberofUsers)))**  **TotalAnnualSubscriptionFee = (5 \* (BSubscriptionFee \* numberofUsers))**  **Where 5 is the total number of years, BsubscriptionFee is The subscription based fee**  **And numberofUsers = 300**  **AnnualSubscriptionFee = (BSubscriptionFee \* numberofUsers)**  **// calculate hardware costs:**  **HardWareCosts = (cpuCost + cpuMaintenanceFee)**  **//compute TCO:**  **totalOwnerShipCosts = HardWareCosts + LicenseTotal + TotalAnnualSubscriptionFee** |
| **Product C** | **Given that customizationFee = $500,000**  **Given that subscriptionfee = $25,000 per year;**  **We compute TCO as follows:**  **LicenseTotal = ((subscriptionfee \* 5) + (customizationFee));**  **Where**   * **5 represents the duration of years** * **$500,000 represents the implementation/customizations fee that the vendor will apply for Product C** * **$25,000 is the annual subscription.** |