**Warmup-task**

1. **Find the price on Internet of two possible x86 servers with the following characteristics:**

**a. Rack server**

**b. At least 2 Intel Xeon Gold Processor**

**c. At least 12 cores per processor**

**d. At least 128 GB of RAM**

|  |  |
| --- | --- |
| Configuration 2 Processors and 20 cores for each | Configuration 2 Processors and 16 cores for each |
| Smart Value PowerEdge R440 Server Basic | Smart Value PowerEdge R440 Server Basic |
| 2x Intel® Xeon® Gold 5218R 2.1G, 20C/40T | 2x Intel® Xeon® Gold 5218 2.3G, 16C/32T |
| 8x 16GB RDIMM, 3200MT/s, Dual Rank | 2x 64GB RDIMM, 3200MT/s, Dual Rank |
| |  | | --- | | Prezzo base 7241,14 | | Risparmio 2703,4 - sconto 35% | | Prezzo finale (DELL) | | 4.537,74 €  +Prosupport Plus 1250 € | | |  | | --- | | Prezzo base 6839,14 | | Risparmio 2497,7 – sconto 35%( | | Prezzo finale (DELL) | | 4.544,66 €  +Prosupport Plus 1100 € | |
| Configuration 1 Processor with 20 cores | Configuration 1 Processor with 16 cores |
| Smart Value PowerEdge R440 Server Basic | Smart Value PowerEdge R440 Server Basic |
| 1x Intel® Xeon® Gold 5218R 2.1G, 20C/40T | 1x Intel® Xeon® Gold 5218 2.3G, 16C/32T |
| 2x 64GB RDIMM, 3200MT/s, Dual Rank | 2x 64GB RDIMM, 3200MT/s, Dual Rank |
| |  | | --- | | Prezzo base 5.318,13 € | | Risparmio 2.030,35 € sconto 35% | | Prezzo finale (DELL) | | 3.287,78 € | | |  | | --- | | Prezzo base 5.117,13 € | | Risparmio 1.895,00 €- – sconto 35%( | | Prezzo finale (DELL) | | 3.222,13 € | |

1. **Find the price of two possible commercial Java Application Servers.**

|  |  |
| --- | --- |
| Name | **WebLogic Server Enterprise Edition** (ORACLE) |
| Acquisition Cost | Processor License cost : 21325,00 € |
| Maintenance Cost and when it is applied | Software Update License & Support : 4691,50€ |
| Discount if available | No |
| The unit of measure used to calculate the cost of this software (by core, Processor, Server, PVU, etc) and if there are conversion factors or price depending by range (such as up to 3 servers or up to 2 cores) | Unit of measure : **Processor** |

|  |  |
| --- | --- |
| Name | **IBM websphere** |
| Acquisition Cost (Perpetual licenses) + Maintenance Cost | * IBM WebSphere Application Server Processor Value Unit (**PVU**) License + Software Subscription & Support 12 Months – $**55.25**; * IBM WebSphere Application Server Per Limited Use Socket License + Software Subscription & Support 12 Months – **$14,100.00** |
| Discount if available | No |
| The unit of measure used to calculate the cost of this software (by core, Processor, Server, PVU, etc) and if there are conversion factors or price depending by range (such as up to 3 servers or up to 2 cores) | PVU or Use Socket |

1. **Find the price of two possible Open Source Java Application Servers that provide Premium support 7x24.**

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| --- | --- |
| Name | **Red Hat JBoss Enterprise Application Platform, 16-Core Premium** |
| Acquisition Cost | US **$12,000.00** |
| Maintenance Cost and when it is applied | Included |
| Discount if available | No |
| The unit of measure used to calculate the cost of this software (by core, Processor, Server, PVU, etc) and if there are conversion factors or price depending by range (such as up to 3 servers or up to 2 cores) |  |

|  |  |
| --- | --- |
| Name | **Resin caucho, 24x7** |
| Acquisition Cost | |  |  |  | | --- | --- | --- | | **4 core per CPU** | **6 core per CPU** | **8 core per CPU** | | Starts at **$699** per year | Starts at **$999** per year | Starts at **$1,499** per year | | 1-year - $699 | 1-year - $999 | 1-year - $1499 | |  |  |  | | 2-year - $1249 | 2-year - $1799 | 2-year - $2699 | |
| Maintenance Cost and when it is applied | $18,000/yr for up to 10 CPU (this information is provided by |
| Discount if available | NO |
| The unit of measure used to calculate the cost of this software (by core, Processor, Server, PVU, etc) and if there are conversion factors or price depending by range (such as up to 3 servers or up to 2 cores) | Unit of measure CORE.  Conversion factors depends on range of core per CPU. |

1. **Find the price of two possible commercial DB**.

|  |  |
| --- | --- |
| Name | **Microsoft SQL Server 2019 2 core** |
| Acquisition Cost, and maintenance cost and when it’s applied | Enterprise $13, 748 |
| Discount if available | NO |
| The unit of measure used to calculate the cost of this software (by core, Processor, Server, PVU, etc) and if there are conversion factors or price depending by range (such as up to 3 servers or up to 2 cores) | Unit of measure CORE. |
| Name | **Oracle Database, Enterprise Edition** |
| Acquisition Cost, and maintenance cost and when it’s applied | * Processor License $47,500 * Software Update License & Support $10,450.00 |
| Discount if available | 75% |
| The unit of measure used to calculate the cost of this software (by core, Processor, Server, PVU, etc) and if there are conversion factors or price depending by range (such as up to 3 servers or up to 2 cores) | Unit of measure Processor.  Oracle Database Enterprise Edition and Oracle RAC are licensed on a **per-processor-core** basis, with different processor cores licensed on a weighted basis (called a **Core Factor**). For example, an Intel® Xeon® processor has a **Core Factor of 0.5.**  The licensing formula is:  Number of processors \* Core Factor \* price per core = license costs  An Oracle Database requiring **20 processors** on an Intel Xeon platform (Core Factor = 0.5) would cost 20 \* 0.5 \* **10,000** = $100,000 USD with annual maintenance of $22,000 and a five-year TCO of $210,000 USD. |