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to

2021 Campus Lille Pre-Msc / Msc /

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1. At Epitech you need a computer, you have the choice between taking a "gaming" personal computer with lots of colors everywhere or a personal computer "to code" or a macintosh. But you want to know the price of each of these computers: with these 3 pieces of information given by groups of Epitech comrades: Give the price for each type of computer.

a) Budget = 8200€

3 Items = (G_PC€ 2911.00 + Mac€ 2,499.00 + Asus_coding € 2,149.99) = 7559 euro
and 641 euro refundable to Epitech.

I. Gaming computer 1 piece:

Price: € 2911.00

Specific Uses For Product	Personal, Gaming, Business
Series	Chronos
Ram Memory Installed	16 GB
Size	
Operating System	Windows 10
CPU Model	AMD Ryzen 7
Brand	Skytech Gaming
CPU Manufacturer	AMD
Screen Size	1 Inches
Human Interface Input	Keyboard
Graphics Coprocessor	GeForce RTX 2070 Super 8GB GDDR6

ii. MACBOOK PRO 16 - I9 - 2,3GHZ - 16 GO RAM - 1 TO SSD - AMD RADEON 5500M

Price : € 2,499.00

MacBook Pro Touch Bar 16 (2020)

- ❑ Intel Core i9 "Coffee Lake" 9980H processor at 2.3Ghz
- ❑ 8 Cores / 16 Threads - 16MB Cache L3
- ❑ Turbo Boost at 4.8Ghz
- ❑ 16 "Retina LED display - Resolution: 3072 x 1920
- ❑ 16 GB ram DDR4 at 2667 Mhz

- ❑ 1TB (1000GB) SSD / Flash
- ❑ Thunderbolt 3.0 x 4 / USB-C x 4
- ❑ Intel UHD Graphics 630 + AMD RADEON 5500M (4 GB GDDR6)
- ❑ Mac OS X Big Sur 11 pre-installed
- ❑ Possibility to install Microsoft Windows 10/11 with Bootcamp
- ❑ New product destocked
- ❑ Comes in original Apple box
- ❑ Price of this model on the Apple Store: 3199Euros
- ❑ 700 Euros in savings at Mac Trader France
- ❑ Warranty: 1 year (Parts & labor)

iii. I prefer ASUS for my personal programming laptop :
Price : € 2,149.99

- NVIDIA® GeForce RTX™ 3060 6GB GDDR6
- Windows 10 Home
- AMD Ryzen™ 7 5800HS 3.0 GHz (16M Cache, up to 4.3 GHz)
- 16 GB of RAM (8GB DDR4 on board + 8GB DDR4-3200 SO-DIMM)
- 512GB M.2 NVMe™ PCIe® 3.0 SSD
- 15.6" WQHD (2560 x 1440) 16: 9, 165Hz display
- Anti-glare - Matte screen
- Brightness: 300 cd / m²
- Contrast: 1000: 1
- DCI-P3: 100%
- AZERTY backlit Chiclet keyboard
- Weight: 1.90 kg
- Dimensions: 35.5 x 24.3 x 1.99 ~ 1.99 cm
- Wi-Fi 6 (802.11ax)
- Bluetooth 5.1 (Dual band) 2 * 2
- 1x HDMI 2.0b
- 1x RJ45 LAN port
- 1x Card reader (microSD)
- 2x USB 3.2 Gen 2 Type-C with DisplayPort™, power delivery and G-SYNC
- 2x USB 3.2 Gen 2 Type-A
- 1x 3.5mm Combo Audio Jack
- 90WHrs, 4S1P, 4-cell Li-ion
- ROG Backpack and ROG Impact Gaming Mouse included
- ø6.0, 200W AC Adapter, Output: 20V DC, 10A, 200W, Input: 100-240V AC, 50 / 60Hz universal
- Grey color

b) Budget = 10700€
2 game pc + 2 programming pc + 1 apple mac

I. Programming PC :

I prefer ASUS for my personal programming laptop:

Price : € 2,149.99 * 2 = 4299.98 euro

II. 1 apple Mac

MACBOOK PRO 16 - I9 - 2,3GHZ - 16 GO RAM - 1 TO SSD - AMD RADEON 5500M

Price : € 2,499.00

MacBook Pro Touch Bar 16 (2020)

MACBOOK PRO 16 - I9 - 2,3GHZ - 16 GO RAM - 1 TO SSD - AMD RADEON 5500M

III. Gaming Laptop : if it is only for playing game I will reduce price from this sector.

I would like to invest 3901.02 euro for gaming pc :

Pack PC Portable Gaming Asus F15-TUF566HM-HN080T 15.6" Intel Core i7 16 Go 512 Go SSD
Gris + 6 mois d'abonnement Xbox Game Pass + Souris TUF M5

Price = 1950 euro per pice

Two gaming laptop = 1950 * 2 = 3900 euro approximately

c) Budget =20 100€

1 gaming laptop:

Price: € 2911.00

Specific Uses For Product	Personal, Gaming, Business			
Series	Chronos			
Ram Memory Installed Size	16 GB			
Operating System	Windows 10			
CPU Model	AMD Ryzen 7			
Brand	Skytech Gaming			
CPU Manufacturer	AMD			
Screen Size	1 Inches			
Human Interface Input	Keyboard			
Graphics Coprocessor	GeForce RTX 2070 Super	8GB	GDDR6	

2. coding laptop: ASUS

price = € 2,149.99 * 2 = 4299.98 euro

- NVIDIA® GeForce RTX™ 3060 6GB GDDR6
- Windows 10 Home
- AMD Ryzen™ 7 5800HS 3.0 GHz (16M Cache, up to 4.3 GHz)
- 16 GB of RAM (8GB DDR4 on board + 8GB DDR4-3200 SO-DIMM)
- 512GB M.2 NVMe™ PCIe® 3.0 SSD
- 15.6" WQHD (2560 x 1440) 16: 9, 165Hz display
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- ROG Backpack and ROG Impact Gaming Mouse included
- ø6.0, 200W AC Adapter, Output: 20V DC, 10A, 200W, Input: 100-240V AC, 50 / 60Hz universal
- Grey color

3.mac:

MACBOOK PRO 16 - I9 - 2,3GHZ - 16 GO RAM - 1 TO SSD - AMD RADEON 5500M

Price = € 2,499.00 * 3 = 7497 euro

2. Chapter two: I am the Matrix!
Thanks to Epitech Lille, you have become an influential professional cybersecurity manager but there you are find yourself in front of this enigmatic message that you must decipher, you know that the answer is in French (you can ask for a hint if necessary):

I Mxqbmkp Tqttm zqowczmcf bc amzia ! Gwli

Answer:

Seems the text is encrypted. As it is in french text a French speaker can manually inner mining of the text manually by cipher ciphertext attack. An encryption algorithm is the method used to transform data into ciphertext. We can decrypt the message by using decryption algorithm also. Decryption is a process that transforms encrypted information into its original format. There are some software also that we can use to solve the text but for that we need the key. If any software is used to encrypt it than need know the key and software to decry-pt the cipher text into plain text.

I will ask what encryption algorithm you have been used for what was the key for the encryption method?

Then it is possible to decrypt easily. If you used any specific algorithm to encrypt the message then need to know that.

3. Chapter Three: Fooood

At Epitech Lille all years ago, 257 students, 24 members of the pedagogy (including 14 "Aer" - students who accompany lower year students), but for the start of the school year we want to know how much to buy Donuts. To do this we wrote an algorithm that calculates how many Donuts to buy, here is the code in bold of this algorithm:

NumberDonut receives zero. **0**

ChocolatPrevu receives zero. **0**

Main Method

For each student do **257**

 IncreaseNumberOfDonut (student, NumberOfDonut)

For each member of the pedago Do **24**

If member equals Aer **14** **14**

 IncreaseNumberOfDonut (Aer, NumberOfDonut)

else **?**

 IncreaseNumberOfDonut (Framing, NumberOfDonut)

?

 IncreaseNumberOfDonut (entry, NumberOfDonut)

NumberDonut increases by 1

If entry equals Aer **14**

 IncreaseNumberOfDonut (student, NumberOfDonut)

If ChocolatePrevu <17 (if 16)

ChocolatePrevu increases by 2+ ChocolatePrevu (16+ 2 =18)

Otherwise

ChocolatPrevu increases by 1 (17 +1 = 18)

If entry equals Supervisor **?**

 IncreaseNumberOfDonut (Aer, NumberOfDonut)

>>> What will be the result of this program?

Because of I have just translated from French many information is not properly cleared , So this is not properly solved.