**PLEASE NOTE :**

***Information in this algorithm is confidential. Please do not share them.***

**All highlighted numbers below are not set yet. We are in a trial mode. The logical expressions can calculate a price if only olive wood is used.**

**Few constants will be soon integrated as functions depending on more variables.**

**The purpose of this algorithm is to approach an approximation of the price. It will be enhanced continuously with experience.**

**Steps :**

Write the Algorithm, logic part - functional requirements

Write the coding program. In this case Python

Launch an app simulator with the required need through Python

Develop a web application

Link the program written in Python somehow to this web app (API)

1. Functional Requirements

**Fonction Globale : f(P) = f(W) + f(E) + f(L) + f(F) + f(CNC) + f(C) +f(O) + f(T)**

Avec : W = Wood

E = Epoxy

L = Legs

F = Finishing

CNC = Computer Numerical Control

C = Color

O = Others (Mécanique for clock and Tozzo for Table)

T = Transport

1.1. Round Shape, Clock

**Afficher :** Welcome to Cedroxy’s pricing link. Please complete the questionnaire in order to have a final ranging price of your eventual product.

**Afficher :** Choose your shape

If Round Shape, then afficher : Clock or Table ?

If Clock then afficher : Choose your Dimensions :

Diameter = D cm and  Width =  W cm

* **For f(W) :**

If D < 80, then f(W) = 40 $

If 80 ⩽ D < 120, then f(W) = 80 $

If D ⪖ 120, then f(W) = 130 $

* **For f(E) :**

f(E) = π\* (D/2)2 \* W \* 1.1 \* 0.5 \* 10-3\* 17

* **f(L) = 0 $ (clock)**

* **For f(F) :**

f(F) = (π\*(D/2)2) / 11 \*2 \*17 \* 10-3

* **For f(CNC) :**

If D ⩽ 60, then f(CNC) = 30 $

If 60 < D ⩽ 120, then f(CNC) = 50 $

If D > 120, then f(CNC) = 70 $

* **For f(C) :**

f(C) = π\* (D/2)2 \* W \* 1.1 \* 0.5 \* 10-3/6\*2

* **For f(O) :**

f(O) = 15 $ (constante)

Afficher f(P) **= [ f(W) + f(E) + f(L) + f(F) + f(CNC) + f(C) + f(O) ] \* 2.2**

1.2. Round Shape, Table

**Afficher :** Choose your shape

If Round Shape, then afficher : Clock or Table ?

If Table then afficher : Choose your Dimensions :

Diameter = D cm and  Width =  W cm

* **For f(W) :**

If D < 80, then f(W) = 40 $

If 80 ⩽ D < 120, then f(W) = 80 $

If D ⪖ 120, then f(W) = 130 $

* **For f(E) :**

f(E) = π\* (D/2)2 \* W \* 1.1 \* 0.5 \* 10-3\* 17

* **For f(L) :**

If D ⩽ 60, then f(L) = 50 $

If D > 60, then f(L) = 100 $

* **For f(F) :**

f(F) = (π \* (D/2)2) / 11 \*2 \*17 \* 10-3

* **For f(CNC) :**

If D ⩽ 60, then f(CNC) = 30 $

If 60 < D ⩽ 120, then f(CNC) = 50 $

If D > 120, then f(CNC) = 70 $

* **For f(C) :**

f(C) = π\* (D/2)2 \* W \* 1.1 \* 0.5 \* 10-3/6\*2

* **For f(O) :**

f(O) = 15 $ (constante)

Afficher f(P) =  [ **f(P) = f(W) + f(E) + f(L) + f(F) + f(CNC) + f(C) + f(O)] \* 2.2**

2.1. Rectangular Shape, Table

If Rectangular Shape, then afficher : Clock or Table ?

If Table then afficher : Choose your Dimensions :

Length = L cm , Height = H cm and Width =  W cm

* **For f(W) :**

If L \* H  < 3600 , then f(W) = 40 $

If 3600 ⩽ L \* H < 12000, then f(W) = 100 $

If L \* H ⪖ 120000, then f(W) = 150 $

* **For f(E) :**

f(E) = W\* L \* H\* 1.1 \* 0.5 \* 10-3\* 17

* **For f(L) :**

If L \* H ⩽ 3600, then f(L) = 50 $

If  3600 < L \* H ⩽12000 , then f(L) = 100 $

If L \* H > 12000, then f(L) = 150 $

* **For f(F) :**

f(F) = (L \* H) / 11 \*2 \*17 \* 10-3

* **For f(CNC) :**

If L \* H ⩽ 3600, then f(CNC) = 30 $

If 3600 < L \* H  ⩽ 120000, then f(CNC) = 50 $

If L \* H > 12000, then f(CNC) = 70 $

* **For f(C) :**

f(C) = L \*H \* W \* 1.1 \* 0.5 \* 10-3/6\*2

* **For f(O) :**

f(O) = 15 $ (constante)

Afficher f(P) =  **[** **f(P) = f(W) + f(E) + f(L) + f(F) + f(CNC) + f(C) + f(O) ] \* 2.2**

2.2. Rectangular Shape, Clock

If Round Shape, then afficher : Clock or Table ?

If Clock then afficher : Choose your Dimensions :

Length = L cm , Height = H cm and Width =  W cm

* **For f(W) :**

If L \* H  < 3600 , then f(W) = 40 $

If 3600 ⩽ L \* H < 12000, then f(W) = 100 $

If L \* H ⪖ 120000, then f(W) = 150 $

* **For f(E) :**

f(E) = W\* L \* H\* 1.1 \* 0.5 \* 10-3\* 17

* **For f(L) = 0 $**

* **For f(F) :**

f(F) = (L \* H) / 11 \*2 \*17 \* 10-3

* **For f(CNC) :**

If L \* H ⩽ 3600, then f(CNC) = 30 $

If 3600 < L \* H  ⩽ 120000, then f(CNC) = 50 $

If L \* H > 12000, then f(CNC) = 70 $

* **For f(C) :**

f(C) = L \*H \* W \* 1.1 \* 0.5 \* 10-3/6\*2

* **For f(O) :**

f(O) = 15 $ (constante)

Afficher f(P) =  **[** **f(P) = f(W) + f(E) + f(L) + f(F) + f(CNC) + f(C) + f(O) ] \*** 2.2

[**https://realpython.com/python-web-applications/#convert-a-script-into-a-web-application**](https://realpython.com/python-web-applications/#convert-a-script-into-a-web-application)