## MegaDesk

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attribute

methods

+surfaceMaterial(): enum

Desk surfaceMaterial: enum width:int = defaultValue depth:int Oak numDrawers int Laminite - surfaceMaterial : enum Pine Rosewood Veneer +Desk(width, depth, numDrawers, surfaceMaterial: surfaceMaterials) + surfaceArea():int + numDrawers():int

attribute

methods

## DeskQuote

- + customerName:string
- rushNumDays:int
- quoteDate:dateTime -quoteTotal: double

BASE\_PRICE

COST PER SQ INCH DRAWER\_COST

- + deskQuote(customerName: string)
- + quoteTotalCalc():void
- + getDeskTypeCost(surfaceMaterial:
- enum):double
- +getDrawerCost(numDrawers:int)double
- + getRushOrderCost(rushNumDays:int, surfaceArea: int):double
- + ToString() string:

calculateQuoteTotal() { quoteTotal = BASE\_PRICE + (desk.SurfaceArea() \* COST\_PER\_SQ\_INCH) + getVeneerCost(desk.SurfaceMaterial) + getDrawerCost(deskNumDrawers) + getRushOrderCost(rushDays, desk.SurfaceArea()) }

```
//returns cost depending on wood type
         getDeskTypeCost
                       oak = 200;
                      Laminite = 100;
                     Pine = 50;
                     Rosewood = 300:
                   Veneer = 125;
         //Gets the cost of desk with drawers
         getDrawerCost { numDrawers * DRAWER_COST (each drawer cost $50)}
quoteTotal(){
if surfaceArea > 1000{
BASE_PRICE + (surfaceArea * COST_PER_SQ_INCH) + surfaceMaterial + getDrawerCosts + getRushOrderCost}
else {BASE_PRICE + deskTop + getDrawerCost + getRushOrderCost}
getRushOrderCost(){
if 14 days{
        return 0;
} else if 7days {
if surfaceArea < 1000 return 30
else if surfaceArea > 1000 && surfaceArea <= 2000
return 35
else
return 40
else if 5 days{
surfaceArea < 1000 return 40
else if surfaceArea > 1000 && surfaceArea <= 2000
return 50
else
return 60
else if 3 days{
if surfaceArea < 1000 return 60
else if surfaceArea > 1000 && surfaceArea <= 2000
return 70
else
return 80
```

## **Learn about this template**

UML class diagrams map out the structure of a particular system by modeling its classes, attributes, operations, and relationships between objects.

To customize this template:

- Click on any shape and type the information you would like to include.
- Add and arrange class shapes as needed.
- Update cardinality.
  - Click on a line and navigate to the properties bar to adjust the endpoints.
  - Click on a line and hover over the gear icon to add multiplicities.
  - Add additional lines by hovering over a shape and clicking the red dot

## **UML Class Diagram Tutorials**

(Hold Shift +  $\Re$  or Ctrl, then click)

Watch a UML class diagram tutorial



Read about UML class diagrams

Watch Lucidchart basic tutorials