Chapter 11 Office Furniture

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Instructions:

For this assignment, you will demonstrate class inheritance by creating a parent class for OfficeFurniture and a child class for Desk. You will instantiate and display an object for each class.

* 1. In the first step, you will create a parent class for OfficeFurniture. Set the class variables to be a category (desk, chair, filing cabinet would be example values), material, length, width, height, and price. Include a method that returns a string about the object. Implement the \_\_str\_\_ method (refer to section 10.2 in your book for details).
  2. In the second step create a subclass for Desk that includes location\_of\_drawers (left, right, both are options) and number\_drawers. Override the parents \_\_str\_\_ method to include drawer location and count.
  3. Implement each class in a separate file. Import these into your main program. Your main program should implement and display an instance of each, the parent class and the child class.

Classes:

|  |
| --- |
| OfficeFurniture |
| - category: String  - material: String  - length: Float  - width: Float  - height: Float  - price: Float |
| + set\_category(category)  + set\_material(material)  + set\_length(length)  + set\_width(width)  + set\_height(height)  + set\_price(price)  + get\_category  + get\_material  + get\_length  + get\_width  + get\_height  + get\_price  - str: String |

|  |
| --- |
| Desk (OfficeFurniture) |
| - location\_of\_drawers: String  - number\_of\_drawers |
| + set\_location\_of\_drawers(location\_of\_drawers)  + set\_number\_drawers(number\_drawers)  + get\_location\_of\_drawers  + get\_number\_drawers  - str: String |

Data:

Classes:

- OfficeFurniture

- Desk(Office Furniture)

Variables  
 - table: OfficeFurniture

- desk: Desk

User Input

- NONE

Processing:

1. Initialize table and desk
2. Print table and desk which uses the \_\_str\_\_ function.

Output:

* 1. Prints the category, price, dimensions of the OfficeFurniture
  2. Prints the category, price, dimensions, drawers information of Desk