

Submission instruction:

Submit only one copy of the cpp file, mark different portions of your solution with comment as task1,task2 , ...

Rename the file, add your student id. Example if your student Id is **123456** rename it as **furnitures 123456.cpp**

Scenario:

We want to develop a project to help a furniture e-commerce company to store different types of information about their products. The project is ongoing. You will find the beginning of the project in furnitures.cpp file. You need to complete the following tasks

TASK 1:

Define classes Bed, Sofa, Almirah which will inherit Furniture class. Bed has BedSize{Single, SemiDouble,Double}, Sofa is categorized on SofaSize{One, Two, Three, Four, Five}, Almirah is categorized on AlmirahSize {Two,Three,Four,}. For this use enum class of cpp instead of c style declaration enum. For helping resource check:

<https://www.geeksforgeeks.org/enum-classes-in-c-and-their-advantage-over-enum-datatype/>

Implement appropriate constructors to store the information.

TASK 2:

Implement productDetails function which displays the information about the product. A sample output of product Bed is shown below:

```
-----  
Regular Price: 10000  
Discounted Price: 9877  
Material: Wood  
Bed Size: Single  
#####
```

TASK 3:

Manager wants to set a discount as a percentage of the regular price for Sofa and Almirah. This type of wish may come to other products also. To help him create a new function and place it appropriately. The display function productDetails will not be changed. Example: sofa1.setDiscountPercentage(30) will set the discount amount equal to 30% of regular price.

TASK 4:

Implement sort_furniture_discount(), it will sort the array in descending order based on their discount price.

You may need to add some member functions in some classes.