

Week 9: Pointer, Reference, Virtual Function

Learning Materials: Chapter 10

Task 0:

Read the textbook (page 484) **Simulation: A Horse Race**. Copy the code `horse.cpp` (page 485) and run in your machine. Understand the code so that you may change the code in the viva.

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 must use the `furniture.cpp`** You need to complete the following tasks.[In one file you can complete all tasks but you need to explain each task if asked]

TASK 1:

Define classes `Bed`, `Sofa`, `Almirah` which will inherit `Furniture` class. `Bed` has `BedSize{Single, SemiDouble, Double}`, `Sofa` is categorized on `SeatNuner{One, Two, Three, Four, Five}`, `Almirah` is categorized on `Door{Two, Three, Four}`. Implement an appropriate constructor 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  
#####
```

Regular Price: 10000

Discounted Price: 9

Material: Wood

Bed Size: Single

#####

TASK 3:

Manager wants to add a product name for each type of their product. Take necessary actions so that a product name can be added for each product **object**. Example: "**Bahari Bed**" Modify productDetail function so that productName is also displayed.

TASK 4:

Implement sort_furniture_price(Furniture**,n), it will sort the array in descending order based on the discounted price of furniture. You may need to add some member functions in the appropriate class.