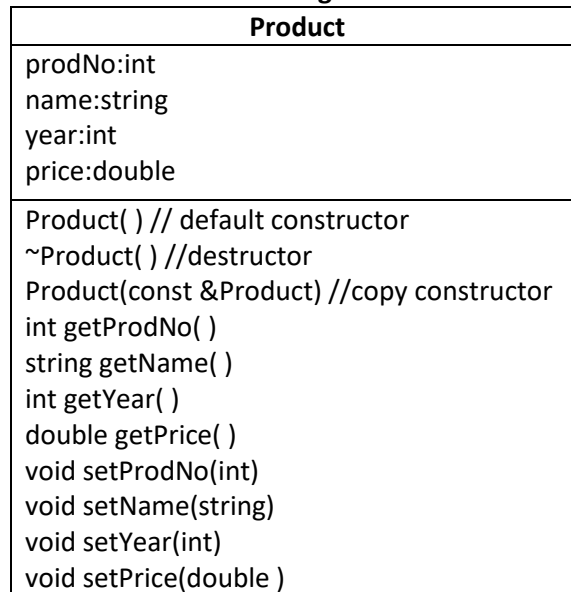


Exercise 1

UML Diagram



```
//product.h
class product{
private:
    int prodno;
    string name;
    int year;
    double price;
public:
    product() //default constructor
    {
        prodno = 10;
        name = "Anything";
        year = 2020;
        price = 0.0;
    }
    product(int pno, string nm, int yr, double pr) //parameterized constructor
    {
        prodno = pno;
        name = nm;
        year = yr;
        price = pr;
    }
    product(const product& oldobj) //copy constructor
    {
        prodno = oldobj.prodno;
        name = oldobj.name;
        year = oldobj.year;
        price = oldobj.price;
    }
    int getProdNo()
    {
        return prodno;
    }
    string getName()
    {
        return name;
    }
}
```

```

int getYear()
{
    return year;
}
double getPrice()
{
    return price;
}
void setName(string nm)
{
    name = nm;
}
void setYear(int yr)
{
    year = yr;
}
void setPrice(double pr)
{
    price = pr;
}
void setProdno(int pno)
{
    prodno = pno;
}

};

//product.cpp
#include<iostream>
#include<string>
using namespace std;
#include"product.h"
void main()
{
    //create a product object which should execute the default constructor
    product pobj1;
    //create an object that will execute the parameterized constructor
    product pobj2(100, "Laptop", 2018, 1450);
    //create another object that will execute the copy constructor.
    product pobj3(pobj1);

    cout << pobj1.getProdNo() << " " << pobj1.getName() << " "
         << pobj1.getYear() << " " << pobj1.getPrice() << endl;

    cout << pobj2.getProdNo() << " " << pobj2.getName() << " "
         << pobj2.getYear() << " " << pobj2.getPrice() << endl;

    cout << pobj3.getProdNo() << " " << pobj3.getName() << " "
         << pobj3.getYear() << " " << pobj3.getPrice() << endl;

    system("pause");
}

```