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**Subject:DS.**

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**1.Book**

**Main.cpp File**

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**#include "bookheader.h"**

**int main()**

**{**

**Book::showcount();**

**Book b1(1,1499,"Bhagwat Gita","Shri. Prabhu");**

**b1.showbook();**

**Book b2(2,1999,"Gravity","James");**

**b2.showbook();**

**Book::showcount();**

**return 0;**

**}**

**Header.h File**

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**#include<iostream>**

**#include<stdio.h>**

**#include<string.h>**

**using namespace std;**

**class Book**

**{**

**int bid;**

**double bprice;**

**char bname[50];**

**char bauthor[50];**

**static int count;**

**public:**

**Book();**

**Book(int,double,char\*,char\*);**

**~Book();**

**void setbid(int);**

**void setbname(char\*);**

**void setbprice(double);**

**void setbauthor(char\*);**

**int getbid();**

**double getbprice();**

**char\* getbname();**

**char\* getbauthor();**

**void showbook();**

**static void showcount();**

**};**

**Defination.cpp File**

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**#include "bookheader.h"**

**int Book::count=0;**

**Book::Book()**

**{**

**bid=0;**

**//bname=0;**

**strcpy(bname,"Not given");**

**strcpy(bauthor,"Not Given");**

**//bauthor=0;**

**bprice=0;**

**count++;**

**}**

**Book::Book(int i,double p,char\* n,char\* a)**

**{**

**this->bid=i;**

**strcpy(this->bname,n);**

**strcpy(this->bauthor,a);**

**this->bprice=p;**

**count++;**

**}**

**Book::~Book()**

**{**

**cout<<"\n its getting deleted";**

**cout<<count--;**

**}**

**void Book::setbid(int i)**

**{**

**this->bid=i;**

**}**

**void Book::setbname(char\* n)**

**{**

**strcpy(this->bname,n);**

**}**

**void Book::setbprice(double p)**

**{**

**this->bprice=p;**

**}**

**void Book::setbauthor(char\* a)**

**{**

**strcpy(this->bauthor,a);**

**}**

**int Book::getbid()**

**{**

**return this->bid;**

**}**

**double Book::getbprice()**

**{**

**return this->bprice;**

**}**

**char \* Book::getbname()**

**{**

**return this->bname;**

**}**

**char \* Book::getbauthor()**

**{**

**return this->bauthor;**

**}**

**void Book::showbook()**

**{**

**cout<<"\nBook Id :"<<this->bid;**

**cout<<"\nBook Name :"<<this->bname;**

**cout<<"\nBook Author :"<<this->bauthor;**

**cout<<"\nBook Price :"<<this->bprice;**

**cout<<"\n\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_";**

**}**

**void Book::showcount()**

**{**

**cout<<"\nCount :"<<count;**

**cout<<"\n\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_";**

**}**

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**2.Product.**

**Main.cpp File**

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**#include "productheader.h"**

**int main()**

**{**

**Product p(1,2,"hiiii",1);**

**p.showProduct();**

**Product::showdiscount();**

**return 0;**

**}**

**Header.h File**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**#include<iostream>**

**#include<stdio.h>**

**#include<string.h>**

**using namespace std;**

**class Product**

**{**

**static double discount;**

**int pid;**

**double pprice;**

**char pname[50];**

**long int pquantity;**

**public:**

**Product();**

**Product(int,double,char\*,long int);**

**~Product();**

**void setpid(int);**

**void setpname(char\*);**

**void setpprice(double);**

**void setpquantity(long int);**

**int getpid();**

**double getpprice();**

**char\* getpname();**

**long int getpquantity();**

**void showProduct();**

**static void showdiscount();**

**};**

**Defination.cpp File**

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**#include "productheader.h"**

**double Product::discount=0.1;**

**Product::Product()**

**{**

**pid=0;**

**strcpy(pname,"Not given");**

**pquantity=0;**

**pprice=0;**

**}**

**Product::Product(int i,double p,char\* n,long int q)**

**{**

**this->pid=i;**

**strcpy(this->pname,n);**

**this->pprice=p;**

**this->pquantity=q;**

**}**

**Product::~Product()**

**{**

**cout<<"\nbyee..";**

**}**

**void Product::setpid(int i)**

**{**

**this->pid=i;**

**}**

**void Product::setpname(char\* n)**

**{**

**strcpy(this->pname,n);**

**}**

**void Product::setpprice(double p)**

**{**

**this->pprice=p;**

**}**

**void Product::setpquantity(long int q)**

**{**

**this->pquantity=q;**

**}**

**int Product::getpid()**

**{**

**return this->pid;**

**}**

**double Product::getpprice()**

**{**

**return this->pprice;**

**}**

**char \* Product::getpname()**

**{**

**return this->pname;**

**}**

**long int Product::getpquantity()**

**{**

**return this->pquantity;**

**}**

**void Product::showProduct()**

**{**

**cout<<"\nProduct Id :"<<this->pid;**

**cout<<"\nProduct Name :"<<this->pname;**

**cout<<"\nProduct Quanity :"<<this->pquantity;**

**cout<<"\nProduct Price :"<<this->pprice;**

**cout<<"\nDiscounted Price :"<<pprice-(pprice\*discount);**

**cout<<"\n\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_";**

**}**

**void Product::showdiscount()**

**{**

**cout<<"\n"<<discount;**

**cout<<"\n\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_";**

**}**

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**3.Shirt.**

**Main.cpp File**

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**#include "header.h"**

**int main()**

**{**

**Shirt s(1,3499,"Peter England","Formal","large");**

**s.show();**

**Shirt s1;**

**s1.setsid(1);**

**s1.setssize("Medium");**

**s1.setsprice(1233);**

**s1.setstype("Formal");**

**s1.setsname("Raymond");**

**s1.show();**

**return 0;**

**}**

**Header.h File**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**#include<stdio.h>**

**#include<iostream>**

**#include<string.h>**

**using namespace std;**

**class Shirt**

**{**

**int sid;**

**char sname[40];**

**char stype[40];**

**char ssize[40];**

**int sprice;**

**public:**

**Shirt();**

**Shirt(int,int,char\*,char\*,char\*);**

**~Shirt();**

**void setsid(int );**

**void setsname(char\* );**

**void setstype(char\* );**

**void setssize(char\* );**

**void setsprice(int);**

**int getsid();**

**int getsprice();**

**char\* getsname();**

**char\* getstype();**

**char\* getssize();**

**void show();**

**};**

**Defination.cpp File**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**#include "header.h"**

**Shirt::Shirt()**

**{**

**this->sid=0;**

**this->sprice=0;**

**strcpy(this->sname,"Not yet");**

**strcpy(this->stype,"Not yet Given");**

**strcpy(this->ssize,"Not yet Given");**

**}**

**Shirt::Shirt(int i,int p,char \* n, char \* t,char \* s)**

**{**

**this->sid=i;**

**this->sprice=p;**

**strcpy(this->sname,n);**

**strcpy(this->stype,t);**

**strcpy(this->ssize,s);**

**}**

**Shirt::~Shirt()**

**{**

**cout<<"\ni am going";**

**}**

**void Shirt::setsid(int i)**

**{**

**this->sid=i;**

**}**

**void Shirt::setsname(char\* n)**

**{**

**strcpy(this->sname,n);**

**}**

**void Shirt::setstype(char\* t)**

**{**

**strcpy(this->stype,t);**

**}**

**void Shirt::setssize(char\* s)**

**{**

**strcpy(this->ssize,s);**

**}**

**void Shirt::setsprice(int p)**

**{**

**this->sprice=p;**

**}**

**int Shirt::getsid()**

**{**

**return this->sid;**

**}**

**int Shirt::getsprice()**

**{**

**return this->sprice;**

**}**

**char\* Shirt::getsname()**

**{**

**return this->sname;**

**}**

**char\* Shirt::getstype()**

**{**

**return this->stype;**

**}**

**char\* Shirt::getssize()**

**{**

**return this->ssize;**

**}**

**void Shirt::show()**

**{**

**cout<<"\nShirt Price :"<<this->sprice;**

**cout<<"\nShirt id :"<<this->sid;**

**cout<<"\nShirt Name :"<<this->sname;**

**cout<<"\nShirt Type :"<<this->stype;**

**cout<<"\nShirt Size :"<<this->ssize;**

**if(strcasecmp(ssize,"Small")==0)**

**cout<<"\nShirt Price :"<<(sprice+(sprice\*0.1));**

**if(strcasecmp(ssize,"Medium")==0)**

**cout<<"\nShirt Price :"<<sprice+sprice\*0.2;**

**if(strcasecmp(ssize,"Large")==0)**

**cout<<"\nShirt Price :"<<sprice+sprice\*0.3;**

**cout<<"\n\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_";**

**}**