**과제 3**

**객체지향 프로그래밍**

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**컴퓨터 과학과**

1. **프로그래밍 코드.**

* **Goods class**

**public** **class** Goods {

**private** String name;

**private** **int** price;

**private** **int** numberOfStock;

**private** **int** sold;

Goods(String name, **int** price, **int** numberOfStock)

{

**this**.name = name;

**this**.price = price;

**this**.numberOfStock = numberOfStock;

}

String returname()

{

**return** **this**.name;

}

**void** soldinit()

{

**this**.sold = 0;

}

**void** SoldProduct()

{

**this**.sold++;

**this**.numberOfStock--;

}

**int** returnStock()

{

**return** **this**.numberOfStock;

}

**void** AddStock(**int** Stock)

{

**this**.numberOfStock += Stock;

}

**int** returnSold()

{

**return** **this**.sold;

}

**int** returnPrice()

{

**return** **this**.price;

}

}

* **SuperAPI class**

**import** java.util.Scanner;

**public** **class** superAPI {

**public** **static** **void** main(String args[])

{

**boolean** check = **false**;

**int** count;

Scanner sc = **new** Scanner(System.***in***);

System.***out***.print("슈퍼에서 취급하는 상품의 개수를 입력하시오.>>>");

count = sc.nextInt();

Goods product[] = **new** Goods[count];

**for**(**int** i =0; i<count;i++)

{

String name;

**int** price;

**int** numberOfStock;

System.***out***.print((i+1)+"번째 상품의 이름, 가격, 재고량을 입력하세요.>>");

name = sc.next();

price = sc.nextInt();

numberOfStock = sc.nextInt();

product[i] = **new** Goods(name, price, numberOfStock);

}

**while**(**true**)

{

**int** condition;

System.***out***.println("1)판매 2)구매 3)조회 4)종료");

condition = sc.nextInt();

**if**(condition == 1)

{

**int** total = 0;

**for**(**int** k = 0; k < product.length;k++)

product[k].soldinit();

**while**(**true**)

{

**int** i = 1;

**int** j = 0;

**int** input;

**for**(; j < count; i++, j++)

{

System.***out***.print(i+")"+product[j].returname()+"\t");

}

System.***out***.println(i+") 계산");

input = sc.nextInt();

**if**(input == i)

{

System.***out***.println("판매가격 총액 :"+total);

**int** getmoney;

System.***out***.print("받은 금액을 입력하시오.>>> ");

getmoney = sc.nextInt();

System.***out***.println(" ###\t영수증\t### ");

System.***out***.println("============================");

**for**(**int** l = 0; l < count; l++)

{

**if**(product[l].returnSold() > 0)

System.***out***.println(product[l].returname()+"\t"+product[l].returnPrice()+"X"+product[l].returnSold()+"\t" + (product[l].returnPrice()\*product[l].returnSold()) );

}

System.***out***.println("============================");

System.***out***.println("총액\t\t"+total);

System.***out***.println("받은금액\t\t"+getmoney);

System.***out***.println("============================");

System.***out***.println("거스름돈\t\t"+(getmoney - total));

**break**;

}

input--;

product[input].SoldProduct();

total += product[input].returnPrice();

}

}

**else** **if**(condition == 2)

{

**while**(**true**)

{

**int** i = 1;

**int** j = 0;

**int** select;

**int** Quantity;

**for**(; j < count; i++, j++)

{

System.***out***.print(i+")"+product[j].returname()+"\t");

}

System.***out***.println(i+") 구매 종료");

select = sc.nextInt();

**if**(select != i)

{

System.***out***.print("구매 수량을 입력하세요.>>>");

Quantity = sc.nextInt();

select--;

product[select].AddStock(Quantity);

System.***out***.println("##"+product[select].returname()+"의 재고량이 "+product[select].returnStock()+"으로 증가 함.");

}

**else**

**break**;

}

}

**else** **if**(condition == 3)

{

System.***out***.println(" ###\t 상품명\t재고량\t###");

System.***out***.println("==============================");

**for**(**int** i = 0; i < count; i++)

{

System.***out***.println("\t"+product[i].returname()+"\t"+product[i].retrnStock());

}

System.***out***.println("==============================");

}

**else** **if**(condition == 4)

**return**;

}

}

}

1. **실행 결과.**