import java.util.\*;

public class Program1 {

public static void main(String[] args) {

Scanner kbd = new Scanner(System.in);

Catalog store = new Catalog( );

int itemnum;

Item item;

store.insert

(new Music(1111, "Gold", 12.00, "Abba"));

store.insert

(new Movie(2222, "Mamma Mia", 16.00, "Meryl Streep"));

store.insert

(new Book(3333, "DaVinci Code", 8.00, "Dan Brown"));

store.insert

(new Music(4444, "Legend", 15.00, "Bob Marley"));

// Insert code here to perform a sequence of

// interactive transactions with the user.

// The user enters an item number and the program

// either displays the item or prints an error message

// if the item is not found. The program terminates

// when the user enters zero as the item number.

System.out.print("Item number(0 to quit)?");

itemnum = kbd.nextInt() ;

while(itemnum != 0){

try{

System.out.print(store.find(itemnum));

}

catch (ItemNotFound exc)

{

System.out.println(exc);

}

System.out.print("Item number(0 to quit)?");

itemnum = kbd.nextInt();

}

}

}

import java.util.ArrayList;

public class Catalog {

private ArrayList <Item> list;

private int itemCount;

// Construct an empty catalog

public Catalog() {

list = new ArrayList <Item>();

itemCount = 0;

}

public void insert(Item obj) {

list.add(obj);

// Insert a new item into the catalog.

}

// Search the catalog for the item whose item number

// is the parameter id. Return the matching object

// if the search succeeds. Throw an ItemNotFound

// exception if the search fails.

public Item find(int id) throws ItemNotFound {

Item item = null;

for(int i = 0; i < list.size();i++){

if( id == list.get(i).getItemNumber()){

item = list.get(i);

}

}

if (item == null){

throw new ItemNotFound(id);

}

return item;

}

}

