数码网上商城系统Digital Online Store System

数码网上商城出售台式电脑(Computer)、笔记本电脑(Laptop)、平板电脑(Tablet)、智能手机(Smartphone)和其他智能设备(Device)。其属性如下：

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Product** | Computer | Laptop | Tablet | Phone | Device |
| **Attribute** | Code | Code | Code | Code | Code |
| Brand | Brand | Brand | Brand | Brand |
| Cost | Cost | Cost | Cost | Cost |
| Price | Price | Price | Price | Price |
| CPU | CPU | CPU | CPU | Type |
| GPU | GPU | Size | RAM | Usage |
| RAM | RAM | DISK | DISK |  |
| DISK | DISK | Weight | Camera Pixel |  |
|  | Weight |  |  |  |

该商城接到的订单分为批量订单(bulk order)和小订单(small order)两种。小订单只包含订单日期(date)、单个产品(Product)及其数量(quantity)，批量订单可看作小订单的集合。每笔订单都具有运费成本(delivery cost)和订单序号(code)。示例订单详见附表。

该系统包含产品目录(Product Catalog)及订单管理器(Order Manager)。用户可通过该系统：

1. 按格式增添产品。
2. 按格式增添订单。
3. 通过代号展示单个商品信息。
4. 通过序号展示订单列表。
5. 展示产品目录。
6. 展示订单列表，并计算每笔订单盈利。
7. 将订单内容分别进行HTML、XML、Text输出。

初始订单及初始产品目录见附表。该系统初始订单及初始产品目录文件均以.dat文件储存，并位于\dats文件夹内。系统可读取该文档。该系统生成的文件均位于\docs文件夹内。

附表1：数码网上商城订单信息列表

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Order  Type | Order  Code | Product  Code | Quantity | Date | Delivery  Cost |
| Small  Order | S0001 | C01 | 1 | 1-10 | 25.00 |
| S0002 | C02 | 4 | 5-12 | 45.00 |
| S0003 | L01 | 2 | 5-23 | 27.00 |
| S0004 | T01 | 1 | 6-21 | 29.00 |
| S0005 | P01 | 6 | 7-30 | 95.00 |
| S0006 | D01 | 2 | 7-02 | 45.00 |
| S0007 | D02 | 1 | 9-02 | 22.00 |
| S0008 | P02 | 1 | 11-03 | 5.00 |
| S0009 | P03 | 2 | 11-05 | 6.00 |
| S0010 | T02 | 1 | 12-23 | 19.00 |
| Bulk  Order | B0001 | C05 | 1 | 5-23 | 256.00 |
| T01 | 6 |
| D03 | 8 |
| L02 | 4 |
| L04 | 2 |
| B0002 | C04 | 1 | 9-19 | 475.00 |
| P04 | 9 |
| L03 | 2 |
| C02 | 14 |
| P05 | 15 |
| D03 | 4 |
| D04 | 6 |
| B0003 | C01 | 4 | 11-02 | 398.00 |
| T02 | 9 |
| T04 | 1 |
| C02 | 15 |
| C03 | 12 |
| T03 | 9 |

附表2：数码网上商城产品信息列表

**Computer**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Code** | Brand | Cost | Price | CPU | GPU | RAM | DISK |
| **C01** | Lenovo | 15999 | 18999 | Intel-i9 | RTX3090s | 32G | 2TSSD |
| **C02** | Dell | 4599 | 5999 | Intel-i3 | Vega64 | 8G | 1TSSD |
| **C03** | Asus | 6999 | 8099 | AMD-R5 | 5800XT | 16G | 1TSSD |
| **C04** | Legion | 6500 | 6999 | Intel-i7 | GTX1660ti | 16G | 1TSSD |
| **C05** | Asus | 7999 | 8999 | Intel-i5 | GTX1650s | 16G | 2TSSD |

**Laptop**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Code** | Brand | Cost | Price | CPU | GPU | RAM | DISK | Weight |
| **L01** | Huawei | 5699 | 6599 | AMD-R7 | UHD630 | 8G | 1TSSD | 1.7 |
| **L02** | Apple | 12999 | 16999 | Intel-i5 | Radeon V | 16G | 512GSSD | 1.5 |
| **L03** | Legion | 8999 | 9999 | Intel-i9 | RTX3090 | 32G | 1TSSD | 4.9 |
| **L04** | Dell | 6599 | 7299 | AMD-R5 | MX450 | 16G | 1TSSD | 1.4 |

**Tablet**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Code** | Brand | Cost | Price | CPU | Size | DISK | Weight |
| **T01** | Apple | 6299 | 7199 | A12 | 10.5 | 256G | 0.7 |
| **T02** | Apple | 5299 | 6599 | A12 | 9.5 | 128G | 0.6 |
| **T03** | Huawei | 4299 | 4999 | Kirin | 10.5 | 128G | 0.5 |
| **T04** | Apple | 3299 | 3999 | A12 | 7.5 | 128G | 0.6 |

**Phone**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Code** | Brand | Cost | Price | CPU | RAM | DISK | Pixel |
| **P01** | Huawei | 3000 | 3299 | Kirin | 12G | 256G | 50M |
| **P02** | Apple | 5000 | 5999 | A13 | 12G | 256G | 50M |
| **P03** | Xiaomi | 1299 | 1899 | Qualcomm | 8G | 128G | 108M |
| **P04** | Oppo | 2000 | 2599 | Qualcomm | 8G | 128G | 60M |
| **P05** | Vivo | 2100 | 2659 | Qualcomm | 8G | 128G | 60M |

**Device**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Code** | Brand | Cost | Price | Type | Usage |
| **D01** | Apple | 3299 | 3999 | watch | For wearing |
| **D02** | Xiaomi | 999 | 1299 | speaker | AI communicating |
| **D03** | Huawei | 1299 | 1899 | glasses | For wearing |
| **D04** | Xiaomi | 4999 | 5299 | television | For watching |