SYD366 Inventory Test Fall 2021

**SYD 366 Inventory Test**

Please read the case study and answer the questions below.

Please use Visual Paradigm for your models, and copy PNG or JPG exports or screenshots of your work into this document. The images must be legible. Your professor will not grade any work that isn’t clear and easy to read.

You are welcome to use outside sources in formulating your answers. Be sure to reference your work using APA format.

You must submit this document, in its .docx format and your source .vpp file to Blackboard before the due date. Please note that work submitted in any other format will not be graded, and work will not be accepted by email.

**Work not properly referenced will be passed to the Academic Integrity Committee for review.**

**You will not share your answers with others, in person or through social/digital media.**

**Any outside help or sharing of answers is cheating and major violations of Seneca College’s Academic Honesty Policy.**

**You agree not to replicate, copy, print or record any questions or answers on this exam to share with others.**

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| As a Seneca student, you must conduct yourself in an honest and trustworthy manner in all aspects of your academic career. A dishonest attempt to obtain an academic advantage is considered an offence and will not be tolerated by the College.  See Seneca Policies on Cheating and Plagiarism:  ( <https://www.senecacollege.ca/about/policies/academic-integrity-policy.html> ) |

**Case Study**

*GetFit Fitness Centres* is a small chain of exercise and training centres throughout Ontario. They operate locations that offer weight training, exercise classes such as Zumba, spinning, and aerobics. They sell monthly and yearly memberships, and also offer a range of branded merchandise, such as t-shirts, water bottles, and other workout gear.

Each location manages their sales by using the automated reports from the debit and credit card machines. Every evening after the location closes, they take the daily merchandise sales reports from the debit and credit card machine and scan them into their computers. These reports do not include enough information to properly keep track of each item’s sales.

The company would like to purchase software to help manage sales of merchandise. They would like the software to enable them to easily sell branded products, both online and in person. Your team has been hired to document GetFit’s requirements and recommend software for them to purchase.

Your team has started looking at the company’s merchandising structure and found that they want to put their logo on multiple different types of items, in different styles, and sometimes in different colours. These items are then sold in the training centres or given away as promotions or prizes.

Items are printed by local printers, in large quantities. These items are stored in a warehouse and distributed to each of the centres as necessary,

*Your team leader has written the following scenarios to capture some of GetFit’s requirements.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Name** | **Modify Clothing Item** | | |
| Triggering Event | There has been a change in suppliers, and one of the clothing items has changed. | | |
| Brief Description | This use case enables the Manager to change a clothing item (for example, the hoodie now has a front pocket).  The clothing item already exists in the system. Adding a new clothing item is a separate use case. | | |
| Actors | Manager | | |
| Related Use Cases | Add Clothing Item | | |
| Preconditions | The Manager has opened the Items Menu. | | |
| Post Conditions | The clothing item has been changed. | | |
| Flow of activities | Actor | | System |
|  | 1 | Requests to change an item. | Displays a list of existing items (name and picture) currently in the system. Prompts to choose one to change. |
|  | 2 | Chooses an item | Displays the selected item and enables all attributes to be changed. |
|  | 3 | Uploads a new image and chooses to confirm | Resizes the image to fit the gallery, saves the item and returns to the Items Menu |
| Exception Conditions | The Manager chooses to cancel changing the clothing item. | | |

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| --- | --- | --- | --- |
| **Use Case Name** | **Add New Clothing Item to Inventory** | | |
| Triggering Event | A new shipment of merchandise items has arrived from the warehouse | | |
| Brief  Description | This use case enables the manager to add branded clothing to the system for future sale. | | |
| Actors | Manager | | |
| Related Use Cases |  | | |
| Preconditions | The Manager has opened the Inventory Menu. The item already exists in the system, as well as available sizes and styles. | | |
| Post Conditions | New items have been added to the system, and are ready for sale | | |
| Flow of activities | Actor | | System |
|  | 1 | Requests to add new merchandise item to inventory | Display all the clothing items, with a name, description, and image for each. |
|  | 2 | Choose a clothing item | Displays a list of colours (name and swatch) and a list of sizes |
|  | loop |  |  |
|  | 3 | Choose a colour and size and enter in product sale price, quantity on hand, and any additional notes about the item. | Verifies the information.  Save the merch item to inventory.  Displays a list of colours and a list of sizes |
|  | end | Repeat above step until all the different ‘versions’ of the selected clothing item have been added |  |
|  | 4 | Confirm that addition is complete | Return to Inventory Menu |
| Exception Conditions | Manager chooses to cancel adding clothing items to inventory. | | |

**Question 1** (worth 30 marks)

Complete a **class diagram** to support what your team has learned about *GetFit Fitness Centres* from the above scenarios*.*

**Question 2** (worth 40 marks)

Complete two **object level sequence** diagrams, one for each of the above scenarios.

*Answer all of the following questions in clear English.*

**Question 3** (worth 4 marks)

Head office has purchased shelves, hangers, and other displays to be used in the centres, to show off the merchandise. Are these displays considered to be inventory? How would your class diagram change to include these display items?

No indeed these items are considered as the equipment since they are not for sale, and would be used everyday. Therefore we have to make another class for them named as ‘equipment’ and keep track of them in there.

**Question 4** (worth 4 marks)

What is a UPC code? Is this important to *GetFit’s* merchandising? Is there another or better option?

Universal product code. Yes ofcourse. Since these clothes or other products are not only for prizes but also for sale and profit, they have to have some unique barcode for each of type of them. For the ease in sales tracking or either refunds returns or even the inventory.

To suggest another option as world is evolving in different ways maybe qrcode could be a better option with less headache and more popular for the matter.

**Question 5** (worth 4 marks)

What are the types of inventory used in inventory accounting? What types of inventory does *GetFit Fitness Centres* have? (do not include the items mentioned in Question 3)

There are a lot of inventory types such as raw material/components, finished goods, work in progress, mro goods, packing material, safety stock and etc.

In my opinion Getfit first of for sure has the safety stock to make sure each branch has a minimum of each product at their inventory. Secondly, raw materials/components that are needed to make the products, for instance for the tshirts that getfit only prints their logo on them they should have enough of the raw tshirts and their logo sticker to place on them. And one more to wrap up, it could be the packing material. Getfit would definitely not just hand the customers the goods right? They have to properly pack them to encourage their consumers to buy even more stuff.

