Criterion A: Planning

Scenario:

My client's name is Elsa Amatriain, she is the co-founder of a company called *Colores da Terra©,* An interview was conducted on 04/06/2017 and transcribed and translated in *Appendix A*. The company sells crockery to individuals in Spain, but she is thinking of expanding her company by starting to sell to catering services as mentioned in the interview. Currently, the number of items she manages are relatively small, and she is able to manage it on an excel spreadsheet as can be seen in *Figure 1*.

	Inventario	Referencia			Fecha	07/05/2017	Total ventas	Stock final	Valor inventario
4									
5	Inventario	Referencia			Fecha	07/05/2017			
6							Total	Stock	Valor
7				Unidades	Coste / udad	Coste	ventas	final	inventario
74									
75	vajilla blanco rustica	platops llanos rusticos blancos		56	0,80	44,80	1	55	44
76		bol blanco rustico		44	0,80	35,20	0	44	35,2
77		platos hondos		29	0,80	23,20	0	29	23,2
78		tazas te		70	1,50	105,00	63	7	10,5
79		platos blancos postre		58	0,80	46,40	0	58	46,4
80		marron rayas		24	0,80	19,20			0
81		rayas blancas y azukles agua		12	0,80	9,60	12	0	0
82									
83	vajilla azul petroleo	platos azul petroleo llanos		216	0,83	179,28	201	15	12,45
84		platos postre		108	0,83	89,64	15	93	77,19
85		cuencos		102	0,83	84,66	90	12	9,96
86		platos de rayyas azul/beige		96	0,83	79,68	96	0	0
87		platos grises		12	0,83	9,96	12	0	0
88									
89	vajilla lima	platos hondos lima		102	0,83	84,66	16	86	71,38
90		postre lima		9	0,83	7,47	0	9	7,47
91		llano lima		34	0,83	28,22	0	34	28,22
92		fuente lima		2	0,83	1,66	0	2	1,66
93		bol lima		20	0,83	16,60	0	20	16,6
94									
95	vajilla topo	platos grises llanos		103	0,83	85,49	0	103	85,49
96		platos gris hondo		45	0,83	37,35	0	45	37,35
97		platos postre		116	0,83	96,28	0	116	96,28
98		fuente topo		7	3,00	21,00	0	7	21
99		cuencos grises		48	0,83	39,84	20	28	23,24
100									
101	cuenco	cuencos blancos borde beige		120	0,50	60,00	38	82	41
102		cuencos rayas azules/beige		6	0,50	3,00	6	0	0
103		platos hondos gres		48	0,83	39,84	42	6	4,98
104	bajoplato rustico	bajoplatos		18	1,50	27,00	12	6	9
105		platos balnacos cenefa llanos		24	0,83	19,92	12	12	9,96
106		platos blancos cenefa		84	0,83	69,72	84	0	0
107		tazas de te		96	1,00	96,00	74	22	22
108		fuentes		5	2,50	12,50	4	1	2,5
109		plato amarillo llano		20	0,83	16,60	0	20	16,6
110		plato llano rojo liso		12	0,83	9,96	0	12	9,96
111		plato llano morado		6	0,83	4,98	0	6	4,98

Figure 1: This is a screenshot of the existing excel spreadsheet used by my client.

However, the usability of this spreadsheet is limited. As the company expands and her stock grows, keeping an up-to-date inventory of her stock is becoming harder for her, as the spreadsheet is already becoming "too cumbersome and difficult to use", as is mentioned in the interview. Moreover, as the spreadsheet grows, it is harder for her to keep track of the stock and sales, as she has stated that it is already "not very accurate". She is looking to create an up-to-date inventory of her crockery stock, which is easy for her to use and which makes it possible for her to keep an account of the movements and costs of her items. She wants to be able to record the items that her company buys and the price which they pay for these items, as well as being able to record the items she sells and the costs of these sales.

Rational for proposed solution:

As a developer, I have to create program where my client can manage her inventory with ease, and view her stock and sales in an organized way. The increased efficiency of updating the inventory, by making items easy to distinguish, find and view is the crucial part of this program's design. In her current system, keeping track of the inventory, updating it, viewing different plates, and managing it is not easy due to the lack of referencing and disorganization. Moreover, the tracking of individual sales, is something the client will be able to do with the new system, which will enable her to learn about profits over time. I will use the Netbeans IDE, as it provides a user-friendly user interface developer, which will be very helpful when fitting the user interface design to my client's preferences. Moreover, the smart editor allows the developer to easily identify bugs, therefore leading to a more efficient time-management, as I will be able to focus on the client's necessities rather than debugging small problems that may arise. Netbeans allows me to program with the latest Java technologies, enabling the program to be cross-platform, and not restricting my client of using the program on another platform. On top of that, it will also help me keep the project organized, and will make it easier to access different packages and classes within the project thanks to the Java Class libraries. This is beneficial, because it allows me to reduce class files, and make debugging easier. Furthermore, Java is a multithreading platform, which will allow the program to carry out more than one task at a time making it run smoothly.

Criteria for success:

- Create GUI based desktop application
- Must be able to add items to the stock
  - Must be able to input a brief description of the item
  - Must be able to input the number of items being added
  - Must be able to input the price at which these items were bought
  - Must be able to input the price at point of sale
  - Must be able to upload a picture of the item
  - Must be able to input location where the items were bought
- Must have a functioning reference system which differentiates all the different items
- Must be able to delete (sell) items from the stock by giving:
  - Reference
  - Number of items sold
  - Price at which they are sold
- Must have a table where you can see the reference of the items, the description, the number of items, the average cost of buying them, search for specific items within the inventory by using the descriptions, and sort the table according to cost, stock, and so on.
- Must have a table where we can see the sales of each item, how many were sold, at what price they were sold and when they were sold.
- Must be able to know the total cost of goods in the inventory, and total amount of sales and profit made

- Must be able to print out some sort of report, containing the inventory which can be sent by e-mail.
- Saves data about inventory locally, and saves and updates any changes made to the inventory automatically.
- Must re-load saved data when opened.

Word Count: 517