**Project Details**

|  |  |
| --- | --- |
| Project number | *13* |
| Project title | *Mega store corporation* |
| Corresponding TA\LA | *Dina abbas* |
| Deliverable | *1* |

**Team Details**

|  |  |  |
| --- | --- | --- |
| **Student ID** | **Student name** | **Lab Group** |
| 20200186 | Reem Ayman Abdel-fattah | S7 |
| 20200228 | Salma Sherif Mostafa | S7 |
| 20201056 | Hasnaa Gamil Abdel-nabai | S7 |
| 20201064 | Rahma El-sayed Abo El-gheet | S7 |
| 20200140 | Habiba Ayman El-tahre | S1 |
| 20200173 | Dina Othman Emam | S1 |
| 20200734 | Sara Mahmoud Mohamed | S8 |

1. Use cases model:
   1. **Using Event Decomposition technique:**

Table - Types of Events

* + 1. Types of Events

|  |  |
| --- | --- |
| Event | Type  (External/State/temporal) |
| Manager adds new products | External |
| Manager updates product’s price | External |
| Manager makes deals with suppliers about the products | External |
| Manger makes offers of some products occasionally | Temporal |
| Manager gets reports | Temporal |
| The sub-system makes receipt to a customer | State |
| The sub-system checks the reusable bag | State |
| The sub-system checks items | State |
| The sub-system changes customer’s points | State |
| The sub-system provides many categories of products | External |
| The sub-system markets products in retail and wholesaling | External |
| The customer checks offer of products | External |
| The customer looks for and views products | External |
| The customer views his points | External |
| The customer pays for a product | External |
| The customer returns product | External |

* + 1. Formalize events with use cases

Table 2- Formalizing Events to use cases

|  |  |  |
| --- | --- | --- |
| Event | Type  (External/State/temporal) | Use case |
| Manager adds new products | External | Add product |
| Manager update product’s price | External | Change product’s price |
| Manager makes deals with suppliers about the products | External | Make deals |
| Manger makes offers of some products occasionally | Temporal | Make offers |
| Manager gets reports | Temporal | Check reports |
| The sub-system makes receipt to a customer | State | Make receipt |
| The sub-system checks the reusable bag | State | Check reusable bag |
| The sub-system checks items | State | Check item |
| The sub-system provides many categories of products | External | Support many categories |
| The sub-system markets products in retail and wholesaling | External | Sell product |
| The sub-system changes customer’s points | State | Change points |
| The customer checks offers of products | External | Check offers |
| The customer looks for and views products | External | Search and view products |
| The customer views his points | External | View points |
| The customer pays for a product | External | pay |
| The customer returns products within 14 days or on the same day | External | Return Products |

* + 1. Use case Descriptions:

Table 3 - Use cases descriptions

|  |  |  |
| --- | --- | --- |
| Use case name | Actor | Description |
| Make receipt | Sub-system | In this use case the sub-system checks the price of each item then makes the receipt. |
| Check item | Sub-system | In this use case the sub-system checks the price of each item. |
| Make offers | Manager | In this use case the manager makes special offers on some products occasionally. |
| Check offers | Customer | In this use case the customer checks if there are any offers on products. |
| Search and view product | Customer | In this use case the customer searches for particular product and views its details. |
| View points | Customer | In this use case the customer views his collected points. |
| Return products | Customer | In this use case the customer can return products that he has bought within 14 days or on the same day if the product has gone bad. |
| Return products within 14 days | Customer | In this use case the customer can return products on the same day as fresh food, dairy, and pastry products. |
| Return products on the same day | Customer | In this use case the customer can return products within 14 days such as appliances. |
| Change product’s price | Manager | In this use case the manager changes the price of particular product. |
| Add product | Manager | In this use case the manager adds new product to the system |
| Check reports | Manager | In this use case the manager gets reports about products including bestselling, lowest selling products and customer preferences. |
| Make deals | Manager, Supplier | In this use case the manager makes deals with various suppliers to provide these variations of products. |
| Provide products | Supplier | In this use case the supplier provides manager with various products based on their deal. |
| check reusable bag | Sub-system | In this use case Sub-system checks if customer uses special bags to add point for him/her. |
| support many categories | Sub-system | In this use case Sub-system provides many product’s categories like types of food and appliances. |
| sell product | Sub-system | In this use case Sub-system allows customers to choose which way buy product with. |
| retail | Sub-system | In this use case Sub-system provides retail method to sell product one by one. |
| wholesaling | Sub-system | In this use case Sub-system provides wholesaling method to sell product in group. |
| change point | Sub-system | Sub system increases customer's point when the customer uses reusable bag |
| buy | Customer | In this use case Customer selects products to buy in retrial or wholesaling |
| pay | Customer | In this case when the customer buys any product from the store he has to pay with credit, in cash or using his points |
| pay with credit | Customer | In this case the customer can pay using credit card so his points will be increased |
| pay in cash | Customer | In this case the customer can pay in cash so his points will be increased |
| pay with points | Customer | In this case the customer can pay using his points and that affect his points balance |

* + 1. Matrix that maps all domain classes to the set of use cases

|  |  |  |
| --- | --- | --- |
| Use case  **Vs.**  Domain Class | Domain Class 1 | Domain Class 2 |
| change product price | Manager | Product |
| add product | Manager | Product |
| make deals | Supplier | Manager |
| provide product | Supplier | Product |
| make offer | Offer | Manager |
| make receipt | Sub-system | Receipt |
| check item | Sub-system | Product |
| check reusable bag | Sub-system | Payment |
| change point | Sub-system | Payment |
| buy | Customer | Product |
| pay | Customer | Payment |
| pay with credit | Customer | Payment |
| pay in cash | Customer | Payment |
| pay with point | Customer | Payment |
| check offers | Customer | Offer |
| search and view product | Customer | Product |
| return product | Customer | Product |
| return on same day | Customer | product |
| return within 14 days | Customer | Product |
| sell products | Sub-system | product |
| retail | Sub-system | Product |
| wholesaling | Sub-system | Product |
| view points | Customer | Payment |
| support many categories  check reports | Sub-system  Manager | Product  Reports |

* + 1. Diagram, schematic

       Description automatically generatedUse case Diagram:

List of assumption

1. System support many to pay: with point – in cash – with credit
2. Every month manager checks report includes sold products, bestselling product, and lowest selling product.
3. Manager has the authority to change product’s price and add products.

Used tool: draw.io