**Project Details**

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| --- | --- |
| Project number | *28* |
| Project title | *Mega store corporation* |
| Corresponding TA\LA | *Eng. Lamia Atef* |
| Deliverable | *1* |

**Team Details**

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

Table - Types of Events

* + 1. Types of Events

|  |  |
| --- | --- |
| Event | Type  (External/State/temporal) |
| Corporation mangers set different offers throughout the year that vary with the occasion. | Temporal |
| The customer wants to check valid offers. | External |
| The customer wants to return the product | External |
| The system will adjust services automatically | State(internal) |
| The customer wants to search for a certain product | External |
| The customer wants to buy a product | External |
| The customer wants to pay for the selected items | External |
| The customer gains points when using different payment methods, purchasing special bags. | State(internal) |
| The points are affected by special offers announced for a limited time | Temporal |
| It provides special bags that help in reducing plastic waste | External |

* + 1. Formalize events with use cases

Table 2- Formalizing Events to use cases

|  |  |  |
| --- | --- | --- |
| Event | Type  (External/State/temporal) | Use case |
| Corporation mangers set different offers throughout the year that vary with the occasion. | Temporal | Set offers |
| The customer wants to check valid offers. | External | display offers |
| The customer wants to return the product | External | Return product |
| The system will adjust services automatically | Internal | Adjust services |
| The customer wants to search for a certain product | External | Search |
| The customer wants to buy a product | External | Select product |
| The customer wants to pay for the selected items | External | Pay for products |
| The customer gains points when using different payment methods, purchasing special bags | State | Gain points |
| The points are affected by special offers announced for a limited time | temporal | Set points |
| It provides special bags that help in reducing plastic waste | External | Provide special bags |

* + 1. Use case Descriptions:

Table 3 - Use cases descriptions

|  |  |  |
| --- | --- | --- |
| Use case name | Actor | Description |
| Set offers | Corporation mangers | The Corporation mangers checks the occasion, country, and payment method to set different offers. |
| Display offers | Customer | Customer visits the store or mobile app or the website, and the system retrieves and displays offers. |
| Return product | Customer | Customer makes a request to return a product, and the system will check the product to decide if this product can be returned or not. |
| Adjust services | Database systems | Depending on customers preferences the mega store needs to enhance services automatically to each country and customer, the system will check to search and purchase history. |
| Search | Customer | The customer visits the store or mobile app or the website to search for the product, and the system retrieves this product and displays it. |
| Select product | Customer | The customer chooses the products he wants to buy |
| Pay for products | Customer | The customer pays by different methods for the purchases he/she chooses such as: cash, visa, different packages and by points. |
| Set points | Corporation managers | The system gives points to the customer after the purchase is made or buying special bags from the corporation and using different payment methods. |
| Provides special bags | Corporation mangers | The corporation mangers provide special bags to customers so that they can gain points. |
| Gain points | Customer | The customer gets points after making the purchase and taking the special bags. |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Use case  **Vs.**  Domain Class | Domain Class 1 | Domain Class 2 | Domain Class 3 | Domain Class 4 |
| Set offers | Offers | Products | Managers |  |
| Display offers | Customer | Offers | Managers | Products |
| Return product | Customer | Products | Payment |  |
| Adjust services | Countries | Customer |  |  |
| Search | Customer | Products | Managers | Categories |
| Select product | Customer | Products | Offers |  |
| Pay for products | Points | Customer | Payment |  |
| Gain points | Points | Payment | Customer |  |
| Provides special bags | Customer | Points | Payment |  |
| Set points | points | Managers |  |  |

* + 1. Diagram, schematic

       Description automatically generatedUse case Diagram:

Please state/mention which **tool** you have used at the end of the document.

**We used draw.io**