E-commerce Profitability Inventory Optimization

# Milestone: Project proposal

Group 23

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# Percentage of Effort Contributed by Student1: 50%

**Percentage of Effort Contributed by Student2: 50%**

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**Signature of Student 2: Manoghn**

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**ER DIAGRAM:**

A diagram of a product

Description automatically generated

**Entities and Attributes:**

**Product (Entity)**

* product\_id (Primary Key)
* product\_name
* category\_id (Foreign Key, references Category)
* about\_product
* discounted\_price (Foreign Key, references Discount)
* actual\_price (Foreign Key, references Discount)

**Discount (Entity)**

* discount (Primary Key)
* discounted\_price.
* actual\_price
* discount\_percentage

**Category (Entity)**

* category\_id (Primary Key)
* category

**User (Entity)**

* user\_id (Primary Key)
* user\_name

**Review (Entity)**

* review (Primary Key)
* rating
* rating\_count
* review\_title
* review\_content
* product\_id (Foreign Key, references Product)
* user\_id (Foreign Key, references User)

**ProductLink (Entity)**

* product\_link\_id (Primary Key)
* img\_link
* product\_id (Foreign Key, references Product)

**Relations:**

1. PRODUCT to DISCOUNT: one product can have multiple discounts and a single discount will be applicable to multiple products so it (MANY to MANY)
2. PRODUCT to CATEGORY: one product can have one category, but one category can have multiple products. So, its (Many to many)
3. PRODUCT to Product URLs: A product can have Multiple Links, but a link refers to only one product so it’s (one too Many)
4. PRODUCT to USER: The user can buy multiple products and multiple users can purchase a product. So, its (Many to many)
5. USER to Review: one user can give multiple reviews. And one review can be given by multiple users So it’s (Many to many)
6. PRODUCT to REVIEW: A product will have many reviews, but a review is associated with only one product. So, it’s (MANY to MANY)

**UML DIAGRAM**

A diagram of a website

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