

# DATABASE MANAGEMENT SYSTEM PROJECT TASK-1

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## Supermarket Chain Database

1-) A supermarket chain needs a database system to help for tracking the connection between customer and product. Data needs to be kept on each market branch, customers, products, workers and product category.

2-) **Entities Required:** Customer, Branch, Product, Worker, Category.

3-) **Attributes Required:**

**Customer:** Customer ID number, Customer first name, Customer last name, Customer gender.

**Branch:** Branch ID number, Branch name, Branch address, Branch phone number.

**Product:** Product ID number, Product name, Product category.

**Worker:** Worker ID number, Worker first name, Worker last name, Worker phone number, Worker gender.

**Category:** Category ID number, Category name, Category Color.

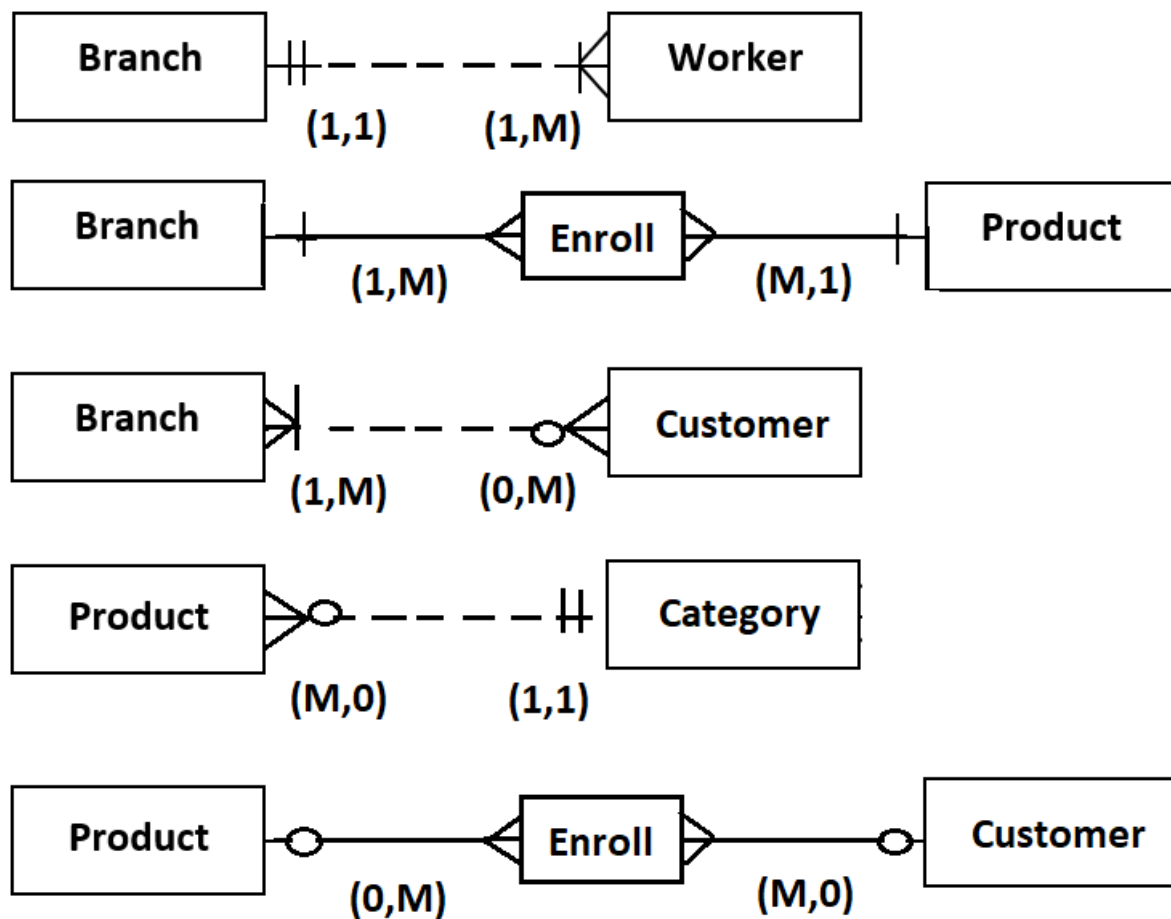
**The following relationships must be defined:**

- Branch is related to Worker.
- Branch is related to Customer.
- Branch is related to Product.
- Category is related to Product.
- Product is related to Customer.

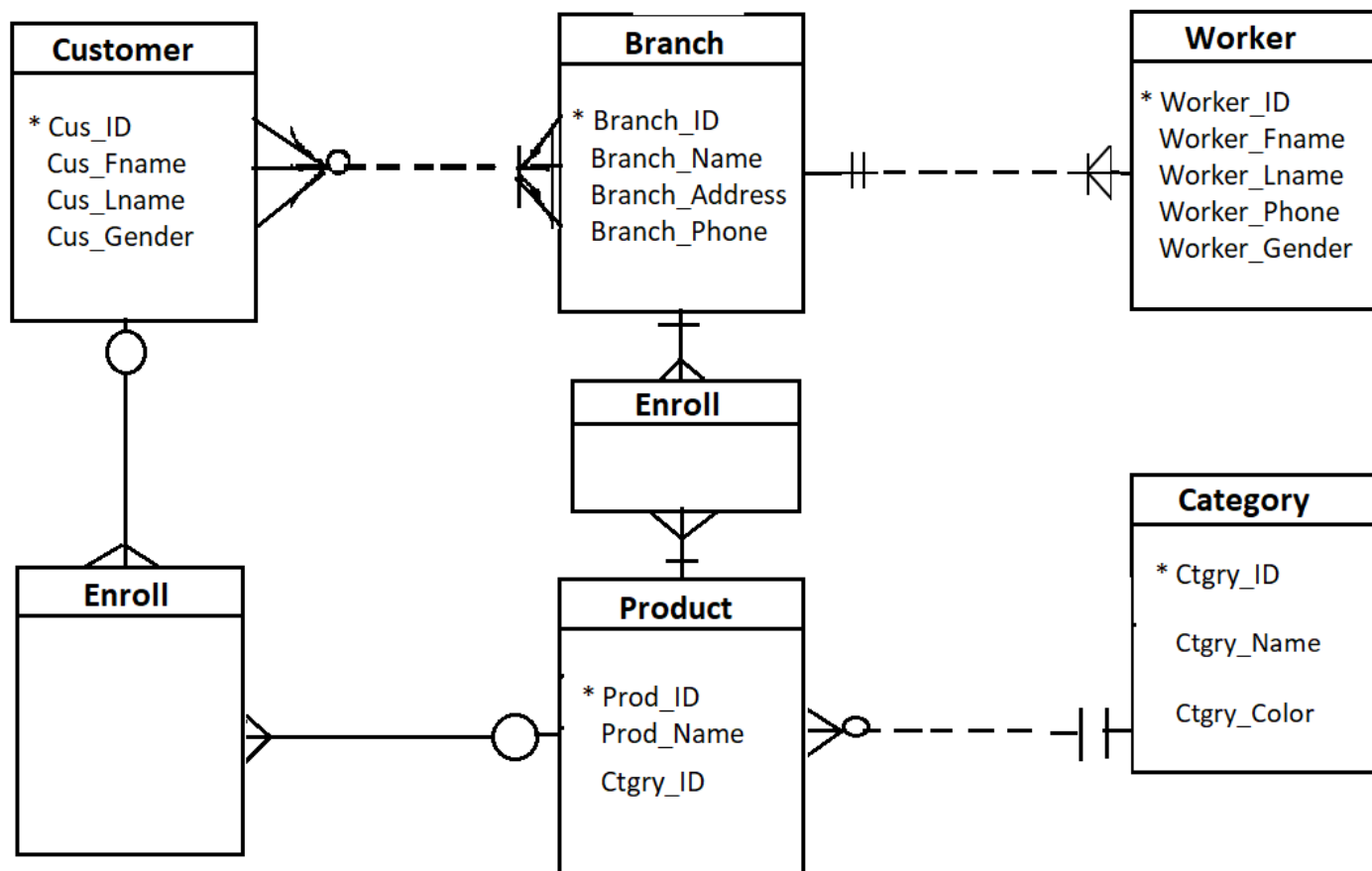
**Connectivities and participations are defined as follows:**

- A Branch must have a Product.
- A Branch may have many Product.
- A Product may have many Branch.
- A Product must have a Branch.
- A Branch must have a Worker.
- A Branch may have many Worker.
- A Worker has only one Branch.
- A Branch may or may not have a Customer.
- A Customer may belongs to many Branch.
- A Product may or may not have a Customer.
- A Product may have many Customer.
- A Customer may have many Product.
- A Customer may or may not have a Product.
- A Category may or may not have a Product.
- A Category may have many Products.
- A Product must have a Category.

4-)



5-)



6-)

Supermarket

Branch Customer Product Category Worker

[Empty Table Area]

ID

Name

Address

Phone Number

Add

Search Update Delete

Supermarket

Branch Customer Product Category Worker

[Empty Table Area]

ID

First Name

Last Name

Gender

Add

Search Update Delete

Supermarket

Branch Customer Product Category Worker

ID

Name

Category

Add

Search Update Delete

Supermarket

Branch Customer Product Category Worker

ID

Category Name

Category Color

Add

Search Update Delete

Branch Customer Product Category Worker



ID

First Name

Last Name

Phone Number

Gender

Add

Search

Update

Delete