



**Cairo University**  
**Faculty of Computers and Artificial Intelligence**  
**Information Systems Department**

**Database I, Year 2022/ 2023**  
**Project**

Each Student is required to build the database system of the project that was been assigned to him from projects below.

**Deliverables:**

- Each project has a set of requirements. These requirements include (ERD, Physical model and set of select statements)
- Software Application using C# programming language

**General Instructions:**

- IS Cheating Policy will be applied
- No late submissions will be accepted.
- Only One from team has to send the solution via blackboard (No hand written will be accepted)
- Due Date: 28th May at 11:59 pm

## Super Market (Ex. [www.carrefour.egypt.com](http://www.carrefour.egypt.com))

<b>Description</b>	<p>A Super Market that wants to develop a DB to keep track of its products &amp; allow customers to buy online (<a href="http://www.carrefour.egypt.com">www.carrefour.egypt.com</a>):</p> <ul style="list-style-type: none"> <li>• Sign up a new customer (by Admin or customer)</li> <li>• Update customer data (by Admin or customer)</li> <li>• Remove customer (by Admin or customer)</li> <li>• Add a new product (by Admin)</li> <li>• Remove product (by Admin)</li> <li>• Update the product details (by Admin)</li> <li>• Browsing products (by Admin or Customers)</li> <li>• Showing a list of all available products.</li> <li>• Showing a list of products that need to be re-stocked if below a specific quantity.</li> <li>• Showing a list of frequent customers to give them a discount voucher.</li> </ul>
<b>Requirements</b>	<ol style="list-style-type: none"> <li>1. Draw the corresponding ERD for this project</li> <li>2. Convert the ERD to Physical model (<b>DDL scripts</b>)</li> <li>3. The proposed ERD has to be designed in a way that can answer inquiries such the follows (<b>you have to write SQL statement for each inquiry</b>):             <ol style="list-style-type: none"> <li>a. What was the most bought product? (That had maximum number of customers)</li> <li>b. What was the product that has no customers for a specific month? (never bought)</li> <li>c. Who was the customer that did not buy any product since one year?</li> <li>d. Who was the customer that made the highest purchase this month?</li> <li>e. IS the supermarket selling electric appliances more or food products more?</li> <li>f. For each product, retrieve all its information and the number of customers who bought it.</li> </ol> </li> </ol>