



AMERICAN INTERNATIONAL UNIVERSITY–BANGLADESH (AIUB)

Dept. of Computer Science
Faculty of Science and Technology

CSC2210: OBJECT ORIENTED PROGRAMMING 2

Spring 2023-2024

Section: [J]

Group No: 34

Project Report On

Project Name [Game Shop Management System]

Supervised By

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Submitted By:

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Obtained Marks for CO2 and CO3 (Description given in the following page)					
Assessment Criteria	Not Attended/ Incorrect (0)	Inadequate (1-2)	Average (3)	Good (4)	Excellent (5)
Evaluation Criteria (CO2)	Total =		Evaluation Criteria (CO3)		Total =
Requirement fulfillment			Organization of the application		
Validation			Representation and Integration of Database		
Verification			Graphical User Interface		

CO2: Display and verify the mean of a real-life Project using the concepts of C# Graphical User Interface based environment with database integration to depict a desktop-based application.

Assessment Criteria	Not Attended/ Incorrect (0)	Inadequate (1-2)	Average (3)	Good (4)	Excellent (5)
Evaluation Criteria	Evaluation Definition				
Requirement fulfillment	Fails to demonstrate any understanding of real-life scenario-based project development or functional requirement identification. There is no attempt to depict a project or identify functional requirements accurately.	Demonstrates limited understanding of real-life scenario-based project development and functional requirement identification. The project depicted lacks coherence or relevance to real-life scenarios, and functional requirements are inaccurately identified or insufficiently described.	Presents a basic depiction of a real-life scenario-based project and identifies some functional requirements. However, the project lacks depth or complexity, and some functional requirements may be vaguely defined or missing key details.	Effectively demonstrates a realistic scenario-based project and accurately identifies most functional requirements. The project is well-developed with appropriate complexity, and functional requirements are clearly articulated with relevant details.	Exhibits an exceptional understanding of real-life scenario-based project development and accurately identifies all functional requirements. The project is meticulously developed with thorough attention to detail, reflecting a comprehensive understanding of Object-Oriented Programming project development activities.
Validation	Fails to demonstrate any understanding or implementation of validation forms in their system. There is no attempt to deal with data validation, and validation requirements are completely ignored or incorrectly applied.	Demonstrates limited understanding of validation forms and data validation techniques. While some attempt may be made to implement validation, it is incomplete or poorly executed, leading to inadequate handling of data validation.	Shows a basic understanding of validation forms and data validation techniques. They attempt to implement validation, but some aspects may be missing or incorrectly implemented, resulting in partial or inconsistent handling of data validation.	Effectively demonstrates the use of validation forms and implements data validation techniques. Validation is mostly accurate and comprehensive, ensuring the proper handling of data input and verification in the system.	Exhibits an exceptional understanding and implementation of validation forms and data validation techniques. Validation is meticulously implemented with thorough attention to detail, ensuring robust data validation procedures and contributing to the overall reliability and integrity of the system.
Verification	Fails to demonstrate any attempt to verify the system data or functional requirements. There is no evidence of understanding or implementation	Demonstrates limited understanding of verification processes and data flow in the system. Verification attempts are incomplete or	Shows a basic understanding of verification processes and attempts to verify system data. However, verification efforts may be inconsistent or	Identifies and verifies system data, ensuring proper functional requirements are met. Verification efforts are mostly accurate and thorough, with attention to	Exhibits an exceptional understanding of verification processes and meticulously verifies system data. Verification efforts are comprehensive

	of verification processes, and data flow is not considered.	inaccurate, and there is insufficient consideration given to ensuring data integrity and functionality.	lack thoroughness, and there may be gaps in ensuring proper functional requirements and data flow.	ensuring data integrity and appropriate data flow within the system.	and precise, with a keen focus on ensuring all functional requirements are met and maintaining proper data flow throughout the system.
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CO3: Prepare and Explain a real life desktop based application synthesizing several component of C# along with development tools to adhere the given requirements.

Assessment Criteria	Not Attended/ Incorrect (0)	Inadequate (1-2)	Average (3)	Good (4)	Excellent (5)
Evaluation Criteria	Evaluation Definition				
Organization of the application	Fails to identify any suitable real time application or requirements for project development activities related to OOP.	Limited understanding about the project scopes and scenarios or identification of functional requirements.	Lacks depth or relevance to OOP project development activities and may contain inaccuracies. Real-life scenarios are mentioned, but the discussion lacks depth or clarity.	Consider and integrate the idea of several core aspects of the project along with relevance to real-life scenarios. Demonstrating a solid understanding of the application presentation.	Generalize and exhibits an exceptional understanding of project preparation according to a to real-life scenarios. Also contains proper and insightful identification of the system which is comprehensive and precise.
Representation and Integration of Database	Fails to identify and present any understanding or implementation of database. Also failed to integrate the data with the project itself.	Limited understanding of the database concepts or their proper way of using in a real time project. While some attempt may be made to implement but it is incomplete or poorly executed, leading to inadequate design.	Lacks depth or relevance to database integration with the application. Shows a basic understanding but some aspects may be missing or incorrectly implemented, resulting in partial or inconsistency. May lack proper normalization.	Integrate the database with the forms properly and implements it with proper validation which is mostly accurate and comprehensive, ensuring the proper handling of data input and verification along with general normalization.	Exhibits an exceptional understanding and implementation of database ensuring attention to detail, and robust data manipulation procedures and contributing to the overall clarity.
Graphical User Interface	Fails to present or prepare GUI based application interfaces. There is no evidence of creating or integrating such things according to their usefulness.	Limited understanding of graphical user interfaces. Lack of design knowledge. Very poor attempt to make such things which are currently obsolete or can't be identified as coherent.	Shows a basic understanding of creating user interfaces. Most of them are interconnected but maybe some of them lack it. However, most of it can be described as user friendly.	Effectively identifies and meet the consider the simplicity. Design related works are mostly accurate and taken proper attention to ensuring a user-friendly coherent system.	Exhibits an exceptional work design following a high standard of simple and elegant work. Several controls and mechanism has been organized in a preferred way according to the coherent usage .

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1.Introduction :

In a comprehensive game shop management system, there are two distinct roles: Admin and Salesman. The Admin has the authority to add Salesmen to the system, update or modify their own information, and remove any Salesman from the system as needed.

The Admin also has the ability to access and review sales records to effectively monitor business performance. Additionally, the Admin is responsible for managing the shop's inventory by adding or removing products and Salesmen to maintain operational efficiency.

Salesmen are tasked with updating purchase information according to customer orders. They can also generate receipts based on the data entered from customer purchases. All these operations and features are accessible to the Admin through the system, ensuring a highly efficient, secure, and user-friendly management system for the game shop.

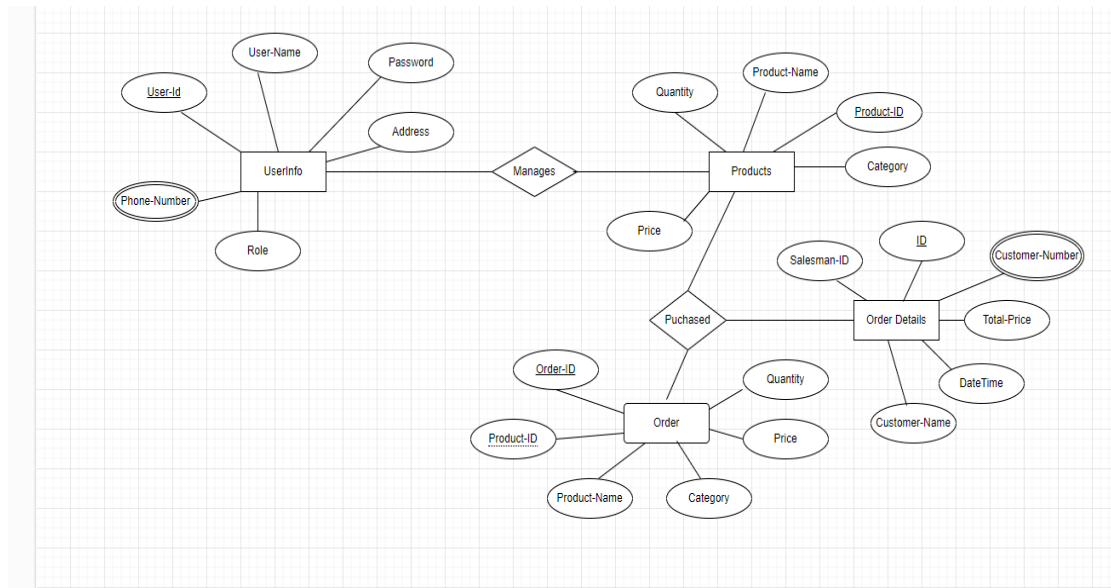
User Story: As an Admin, Salesman.

Admin Perspective:

Admin can update his profile. Admin can also update any salesman profile. Salesman can add or remove any salesman. manager can also see the sells record. manager can also add and remove product.

Salesman Perspective:

Salesman can only generate bills through entering data during the purchase of an customer and he can see all the available product informations. Salesman cannot add or remove any product. He can only make transaction bills for customer.



Entity relationship Diagram

UserInfo:

1NF: UserInfo(UserID, UserName, Password, Role, Address, PhoneNumber)

2NF: UserInfo(UserID, UserName, Password, Role, Address, PhoneNumber)

Products:

1NF: Products(ProductID, ProductName, Category, Price)

2NF: Products(ProductID, ProductName, Category, Price)

Orders :

1NF: (OrderId, Customer-Name, Customer-Number, Total-Bill, DateTime, Seller-Name, ProductID, ProductName, Category, Quantity, OrderID)

2NF : (OrderId, CustomerNumber, DateTime)

(OrderId, ProductID, Quantity, TotalBill)

(CustomerNumber, CustomerName)

(ProductID, ProductName, Category, Price)

Category :

2NF : (ID, Category)

SQL Queries:

USE [Game Store]

GO

/***** Object: Table [dbo].[Category] Script Date: 5/15/2024 4:24:44 PM *****/

SET ANSI_NULLS ON

GO

SET QUOTED_IDENTIFIER ON

GO

```
CREATE TABLE [dbo].[Category](
    [ID] [int] NOT NULL,
    [Category] [varchar](30) NOT NULL
) ON [PRIMARY]
```

GO

/***** Object: Table [dbo].[OrderDetails] Script Date: 5/15/2024 4:24:44 PM *****/

SET ANSI_NULLS ON

GO

SET QUOTED_IDENTIFIER ON

GO

```
CREATE TABLE [dbo].[OrderDetails](
    [ID] [int] IDENTITY(1,1) NOT NULL,
    [CustomerName] [varchar](30) NOT NULL,
    [CustomerPhoneNumber] [varchar](20) NOT NULL,
    [TotalPrice] [varchar](20) NOT NULL,
    [DateandTime] [datetime] NOT NULL,
    CONSTRAINT [PK_OrderDetails] PRIMARY KEY CLUSTERED
(
    [ID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY =
OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON,
OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]
```

GO

/***** Object: Table [dbo].[Product] Script Date: 5/15/2024 4:24:44 PM *****/

SET ANSI_NULLS ON

GO

SET QUOTED_IDENTIFIER ON

GO

```
CREATE TABLE [dbo].[Product](
    [ID] [varchar](10) NOT NULL,
    [Name] [varchar](30) NOT NULL,
    [Quantity] [int] NOT NULL,
    [Price] [int] NOT NULL,
    [CategoryID] [int] NULL
) ON [PRIMARY]
```

GO

/***** Object: Table [dbo].[UserInfo] Script Date: 5/15/2024 4:24:44 PM *****/

SET ANSI_NULLS ON

GO

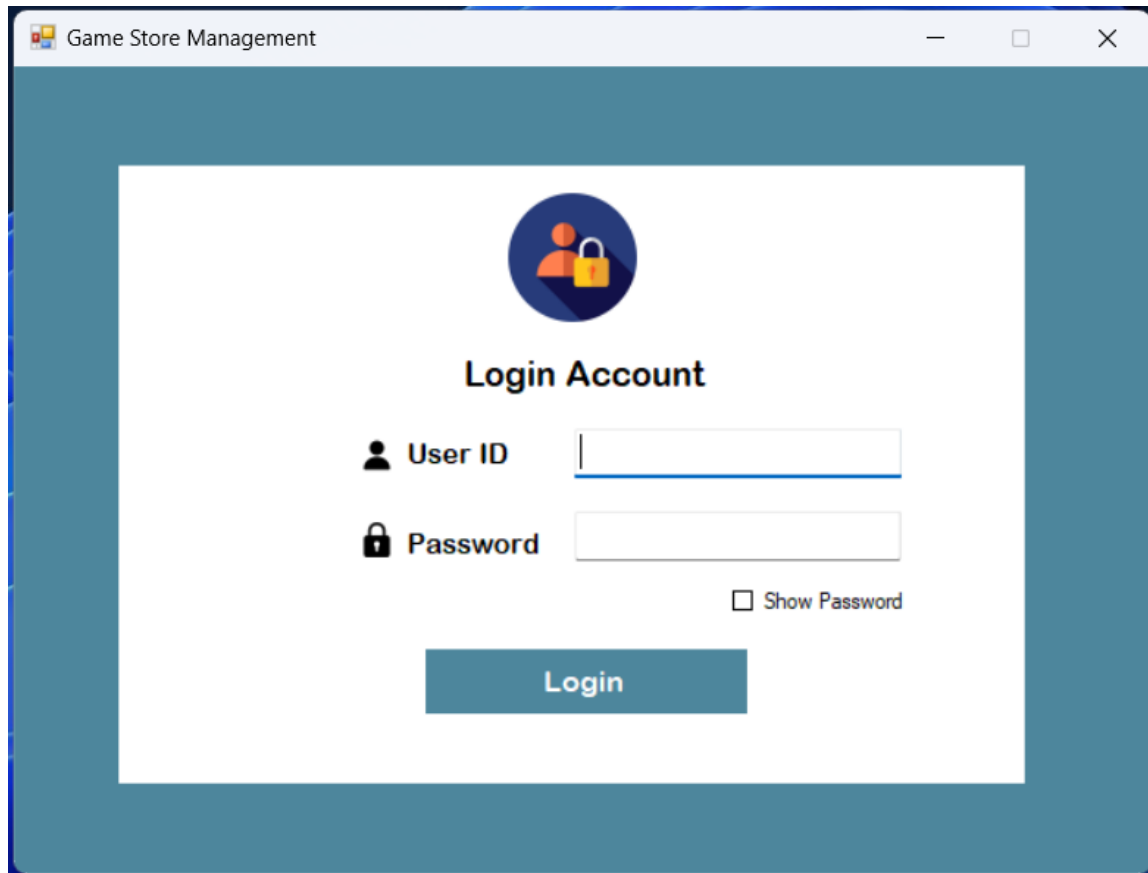
SET QUOTED_IDENTIFIER ON

GO

```
CREATE TABLE [dbo].[UserInfo](
    [UserId] [varchar](10) NOT NULL,
    [UserName] [varchar](30) NOT NULL,
```


```
[Password] [varchar](20) NOT NULL,  
[Role] [varchar](20) NOT NULL,  
[Address] [varchar](50) NOT NULL,  
[PhoneNumber] [varchar](15) NULL,  
CONSTRAINT [PK_UserInfo] PRIMARY KEY CLUSTERED  
(  
    [UserId] ASC  
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY =  
OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON,  
OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]  
) ON [PRIMARY]  
GO
```


Screenshots:





The screenshot shows a web application window titled "Game Store Management". The window has a standard macOS-style title bar with a red close button, a yellow maximize button, and a green window control button. The main content area has a dark teal background. In the center, there is a white rectangular box containing the login form. At the top of this box is a circular icon with a blue background, featuring a stylized orange person and a yellow padlock. Below the icon, the text "Login Account" is displayed in a bold, black font. The form consists of two input fields: "User ID" and "Password". The "User ID" field is preceded by a black person icon, and the "Password" field is preceded by a black padlock icon. To the right of the "Password" field, there is a checkbox labeled "Show Password". Below the input fields is a teal button with the text "Login" in white.

Game Store Management



Login Account

 User ID

 Password

☐ Show Password

Login

Game Store Management | Admin's portal

Welcome, Sakib

Users

Products

Orders

Logout

All Orders

Search By ID

	ID	CustomerName	CustomerPhoneNumber	TotalBill	DateAndTime	SalesmanId
▶						

Game Store Management | Admin's portal

Welcome, Sakib

Users

Products

Orders

Logout

All Orders

Search By ID

	ID	CustomerName	CustomerPhoneNumber	TotalBill	DateAndTime
▶	2	Sakib	0199	400	5/15/2024 3:10 PM
	3	Anannya	01844444	400	5/15/2024 3:50 PM
	4	Rakib	03278327	1200	5/15/2024 4:01 PM
	5	Sazid	934843	800	5/15/2024 4:07 PM
	6	Anannya	01777777777	600	5/15/2024 4:09 PM

Game Store Management System

Welcome, Salesman

Products

All Orders

Logout

Available Products

Search By ID

ID	NAME	QUANTITY	PRICE	Category
P-002	PUBG	400	500	Ps4
P-013	COD MW - 2	496	400	Ps5
P-012	GTA - V	296	300	Xbox

Category:
Product ID:

Product Name:
Quantity:

Price:

Total Price:

Add to Cart

All Orders

Product Name	Product Quantity	Product Price	Product Category
COD MW - 2	1	400	Ps5

Total Price:

Amount:

Change:

Customer Name:

Customer Num:

☐ Pay By Cash
☐ Pay By Card

Place Order

Clear

Conclusion: In summary, our objective was to show a game shop management system by a desktop based application. We have tried to show some real life functionality through this project by implementing our knowledge on windows form application and database. It also shows the outcome of our knowledge achieved throughout the semester. Overall this project will give a slight overview to the customers how a shop management runs.

Reference:

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