



Politechnika  
Wrocławska



## 2ND REPORT

Online Videogames Store Database

Database System Engineering – Computer Science

The project will consists on an Online Videogames Store Database

**PROFESSOR: KRYSZTOF WOJTKIEWICZ**

Alba Márquez Rodríguez

## Contents

DDL .....	<b>Error! Bookmark not defined.</b>
Create .....	<b>Error! Bookmark not defined.</b>
Alter .....	<b>Error! Bookmark not defined.</b>
Drop .....	2
Data Dictionary .....	3
Game .....	3
Sales .....	9
Person .....	16
Database Populating .....	18
CRUD Operations .....	39
Additional Indexes .....	52
List of Applications views .....	53
Interface State Diagram .....	54
Mock-up for each interface view .....	55
Comments on the interface design principles used while preparing mock-ups..	<b>Error! Bookmark not defined.</b>
Bibliography .....	59

## Drop

To eliminate all the tables:

```
DROP TABLE IF EXISTS `onlinevideogamestore`.`address`,
`onlinevideogamestore`.`addresstype`, `onlinevideogamestore`.`cardtype`,
`onlinevideogamestore`.`contact`, `onlinevideogamestore`.`contactcreditcard`,
`onlinevideogamestore`.`countryregion`, `onlinevideogamestore`.`creditcard`,
`onlinevideogamestore`.`currency`, `onlinevideogamestore`.`currencyrate`,
`onlinevideogamestore`.`customer`, `onlinevideogamestore`.`game`,
`onlinevideogamestore`.`game_shoppingcartitem`,
`onlinevideogamestore`.`gameaudiovisuals`,
`onlinevideogamestore`.`gamelistpricehistory`, `onlinevideogamestore`.`gamephoto`,
`onlinevideogamestore`.`gamereview`, `onlinevideogamestore`.`gamevideo`,
`onlinevideogamestore`.`genre`, `onlinevideogamestore`.`saga`,
`onlinevideogamestore`.`salesorderdetail`, `onlinevideogamestore`.`salesorderheader`,
`onlinevideogamestore`.`salesterritory`, `onlinevideogamestore`.`shoppingcartitem`,
`onlinevideogamestore`.`specialoffer`, `onlinevideogamestore`.`specialoffergame`,
`onlinevideogamestore`.`stateprovince`, `onlinevideogamestore`.`territory`,
`onlinevideogamestore`.`title`, `onlinevideogamestore`.`unitmeasure`, `onlinevideogamestore`.`countryregioncurrency`;
```

## Data Dictionary

## Game

Game				
P/F	Field Name	Data Type	Null/Unique	Description/Attributes
P	GameID	int	U	Primary key for game records. Identity / Auto increment column
	Name	varchar(50)	U	Name of the game
	GameNumber	varchar(25)	U	Unique game identification number.
	StandardCost	Decimal(13,4)		Standard cost of the game. Default: 0.00
	ListPrice	Decimal(13,4)		Selling price.
	Storage	varchar(5)	N	Product storage.
	StorageUnitMeasureCode	char(3)	N	Unit of measure for Storage column.
F	GenreID	int	N	Game is a member of this game genre. Foreign key to ProductSubCategory.ProductSubCategoryID.
F	PlatformID	Int		Game is a member of this game Platform.
	Description	Varchar(255)		Description of the game
F	SagaID	Int		Game is a member of this game saga.
F	GameReviewID	int		
	SellStartDate	datetime		Date the game was available for sale.
	SellEndDate	datetime	N	Date the game was no longer available for sale.
	LaunchDate	datetime	N	Date the game was launched.
	ModifiedDate	datetime		Date and time the record was last updated. Default: getdate() //current_timestamp
Genre				
P/F	Field Name	Data Type	Null/Unique	Description/Attributes
P	GenreID	int	U	Primary key for genre game records. Identity/Auto increment column.
	Name	varchar(50)	U	Name of the game.

	Description	varchar(255)	N	Game description.
--	-------------	--------------	---	-------------------

GameAudioVisuals				
P/F	Field Name	Data Type	Null/Unique	Description/Attributes
P	GameID	int	U	Primary key for gameaudiovisuals records. Identity/Auto increment column.
F	GamePhotoID	int	N/U	Foreign key to GamePhoto.GamePhotoID.
F	GameVideoID	int	N/U	Foreign key to GameVideo.GameVideoID.
	ModifiedDate	Datetime		Date and time the record was last updated. Default: getdate()/current_timestamp

GamePhoto				
P/F	Field Name	Data Type	Null/Unique	Description/Attributes
P	GamePhotoID	int	U	Primary key for GamePhoto records. Identity/Auto increment column.
	Icon	varchar(50)	N	Icon file.
	Wallpaper	varchar(50)	N	Wallpaper file.
	Header	varchar(50)	N	Header file.
	Preview	varchar(50)	N	Preview file.
	ModifiedDate	Datetime		Date and time the record was last updated. Default: getdate()/current_timestamp

GameVideo				
P/F	Field Name	Data Type	Null/Unique	Description/Attributes
P	GameVideoID	int	U	Primary key for GamePhoto records. Identity/Auto increment column.
	Icon	varchar(50)	N	Icon file.
	Wallpaper	varchar(50)	N	Wallpaper file.
	Header	varchar(50)	N	Header file.
	Preview	varchar(50)	N	Preview file.
	ModifiedDate	Datetime		Date and time the record was last updated. Default: getdate()/current_timestamp

GameVideo				
P/ F	Field Name	Data Type	Null/Unique	Description/Attributes
P	GameVideoID	int	U	Primary key for GameVideo records. Identity/Auto increment column.
	ReviewVideo	varchar(50)	N	Review video file.
	PreviewVideo	varchar(50)	N	Preview Video file.
	ModifiedDate	Datetime		Date and time the record was last updated. Default:getdate()/current_timestamp

GameReview				
P/ F	Field Name	Data Type	Null/Unique	Description/Attributes
P	GameReviewID	int	U	Primary key for GameReview records. Identity / Auto increment column
F	GameID	int		Game identification number. Foreign key to Game.GameID.
	ReviewerName	varchar(50)		Name of the reviewer.
	ReviewDate	datetime		Date review was submitted. Default: getdate()
	EmailAddress	nvarchar(50)		Reviewer's e-mail address.
	Rating	int		Game rating given by the reviewer. Scale is 1 to 5 with 5 as the highest rating.
	Comments	nvarchar(3850)	N	Reviewer's comments
	ModifiedDate	datetime		Date and time the record was last updated. Default: getdate/current_timestamp
UnitMeasure				
P/ F	Field Name	Data Type	Null/Unique	Description/Attributes
P	UnitMeasureCode	nchar(3)	U	Primary key.
	Name	nvarchar(50)	U	Unit of measure description/name.
	ModifiedDate	datetime		Date and time the record was last updated. Default: getdate/current_timestamp
GameListPriceHistory				
P/ F	Field Name	Data Type	Null/Unique	Description/Attributes
P	GameID	int	U	Game identification number. Foreign key to Game.GameID
P	StartDate	datetime	U	List price start date.
	EndDate	datetime	N	List price end date
	ListPrice	Decimal(13,4)		Product list price.
	ModifiedDate	datetime		Date and time the record was last updated.



				Default: getdate()/current_timestamp
Game_ShoppingCartItem				
P/ F	Field Name	Data Type	Null/ Unique	Description/Attributes
P	GameID	int		Game identification number. Foreign key to Game.GameID
P	ShoppingCartItemID	int		ShoppingCartItem identification number. Foreign key to ShoppingCartItem. ShoppingCartItemID

Saga				
P/ F	Field Name	Data Type	Null/ Unique	Description/Attributes
P	SagaID	int	U	Saga identification number.
	Name	varchar(50)		Saga name.
	Quantity	int		Quantity of games of the saga.
	ModifiedDate	datetime		Date and time the record was last updated. Default: getdate()/current_timestamp

## Sales

SalesOrderHeader					
P / F	Field Name	Data Type	Field Size	Null/Unique	Description/Attributes
P	SalesOrderID	int		U	Primary key Identity / Auto increment column
	RevisionNumber	tinyint			Incremental number to track changes to the sales order over time. Default: 0
	OrderDate	datetime			Dates the sales order was created. Default: getdate()
	DueDate	datetime			Date the order is due to the customer
	Status	tinyint			Order current status. 1 = In process; 2 = Approved; 3 = Backordered; 4 = Rejected; 5 = Cancelled Default: 1
	SalesOrderNumber	varchar(25)		N/U	Unique sales order identification number. Computed: <code>isnull(N'SO'+CONVERT([nvarchar](23),[SalesOrderID]),N'***ERROR ***')</code>
	AccountNumber	varchar(15)		N	Financial accounting number reference
F	CustomerID	Int			Customer identification number. Foreign key to <code>Customer.BusinessEntityID</code>
F	ContactID	Int			Contact identification number. Foreign key to <code>Contact.ContactID</code>
F	TerritoryID	Int		N	Territory in which the sale was made. Foreign key to <code>Territory.TerritoryID</code>
F	BillToAddressID	Int			Customer billing address. Foreign key to <code>Address.AddressID</code> .
	CreditCardApprovalCode	Varchar	15	N	Approval code provided by the credit card company
	SubTotal	decimal(13, 4)			Sales subtotal. Computed as <code>SUM(SalesOrderDetail.LineTotal)</code> for the appropriate SalesOrderID. Default: 0.00
	TaxAmt	decimal(13, 4)			Tax amount. Default: 0.00

	Comment	varchar(128)	128	N	Sales representative comments.
	ModifiedDate	Datetime			Date and time the record was last updated. Default: getdate()
	CreditCardID	Int		N	Credit card identification number. Foreign key to CreditCard.CreditCardID
F	CurrencyRateID	Int		N	Currency exchange rate used. Foreign key to CurrencyRate.CurrencyRateID.
	ContactCreditCardCreditCardID	int			

Triggers: uSalesOrderHeader -> After Update -> AFTER UPDATE trigger that updates the RevisionNumber and ModifiedDate columns in the SalesOrderHeader table. Updates the SalesYTD column in the SalesPerson and SalesTerritory tables.

CountryRegionCurrency				
P/F	Field Name	Data Type	Null/Unique	Description/Attributes
P	CountryRegionCode	varchar(3)		ISO code for countries and regions. Foreign key to CountryRegion.CountryRegionCode
P	CurrencyCode	char(3)		ISO standard currency code. Foreign key to Currency.CurrencyCode.
	ModifiedDate	datetime		Date and time the record was last updated. Default: getdate()
CreditCard				
P/F	Field Name	Data Type	Null/Unique	Description/Attributes
P	CreditCardID	int	U	Primary key for CreditCard records. Identity / Auto increment column
	CardType	varchar(50)		Credit card name.
	CardNumber	varchar(25)		Credit card number.
	ExpMonth	tinyint		Credit card expiration month.
	ExpYear	smallint		Credit card expiration year.
	ModifiedDate	datetime		Date and time the record was last updated. Default: getdate()
CardType				
P/F	Field Name	Data Type	Null/Unique	Description/Attributes

<b>P</b>	CreditCardID	int	U	Primary key for CardType records. Identity / Auto increment column
	Name	Varchar(25)	U	Credit card name.
	ModifiedDate	datetime		Date and time the record was last updated. Default: getdate()
<b>Currency</b>				
<b>P/ F</b>	<b>Field Name</b>	<b>Data Type</b>	<b>Null/ Unique</b>	<b>Description/Attributes</b>
<b>P</b>	CurrencyCode	char(3)	U	The ISO code for the Currency.
	Name	varchar(50)	U	Currency name.
	ModifiedDate	datetime		Date and time the record was last updated. Default: getdate()

<b>CurrencyRate</b>				
<b>P / F</b>	<b>Field Name</b>	<b>Data Type</b>	<b>Null/ Unique</b>	<b>Description/Attributes</b>
<b>P</b>	CurrencyRateID	int	U	Primary key for CurrencyRate records. Identity / Auto increment column
	CurrencyRateDate	datetime		Date and time the exchange rate was obtained.
	FromCurrencyCode	char(3)		Exchange rate was converted from this currency code.
	ToCurrencyCode	char(3)		Exchange rate was converted to this currency code.
	AverageRate	Decimal(13,4)		Average exchange rate for the day.
	EndOfDayRate	Decimal(13,4)		Final exchange rate for the day.
	ModifiedDate	datetime		Date and time the record was last updated. Default: getdate()

<b>ContactCreditCard</b>				
<b>P / F</b>	<b>Field Name</b>	<b>Data Type</b>	<b>Null/ Unique</b>	<b>Description/Attributes</b>
<b>P</b>	ContactID	int	U	Primary key. ID of the Contact Identity / Auto increment column
<b>P</b>	CreditCardID	int	U	PrimaryKey. ID of the CreditCard of the Contact.
	ModifiedDate	date		Date and time the record was last updated. Default: getdate()

Customer				
P / F	Field Name	Data Type	Null/ Unique	Description/Attributes
P	CustomerID	int	U	Primary key. Identity / Auto increment column
	TerritoryID	int	N	ID of the territory in which the customer is located. Foreign key to SalesTerritory.SalesTerritoryID.
	AccountNumber	varchar(10)	U	Unique number identifying the customer assigned by the accounting system. Computed: isnull('AW'+[ufnLeadingZeros]([CustomerID]),'')
	ContactID	int		ID of the contact. Foreign key to SalesTerritory.SalesTerritoryID.
	ModifiedDate	datetime		Date and time the record was last updated. Default: getdate()

SalesOrderDetail				
P / F	Field Name	Data Type	Null/ Unique	Description/Attributes
P	SalesOrderID	int		Primary key. Foreign key to SalesOrderHeader.SalesOrderID.
P	SalesOrderDetailID	int		Primary key. One incremental unique number per product sold. Identity / Auto increment column
	CarrierTrackingNumber	varchar(25)	N	Shipment tracking number supplied by the shipper.
	OrderQty	smallint		Quantity ordered per product.
	ProductID	int		Product sold to customer. Foreign key to Product.ProductID.
	SpecialOfferID	int		Promotional code. Foreign key to SpecialOffer.SpecialOfferID.
	UnitPrice	Decimal(13,4)		Selling price of a single product.
	UnitPriceDiscount	Decimal(13,4)		Discount amount. Default: 0.0
	SalesOrderID	int		Primary key. Foreign key to SalesOrderHeader.SalesOrderID.

## SalesOrderHeader

P / F	Field Name	Data Type	Field Size	Null/Unique	Description/Attributes
P	TerritoryID	int		U	Primary key for SalesTerritory records. Identity / Auto increment column
	Name	nvarchar	50		Sales territory name
	CountryRegionCode	nvarchar	3		ISO standard country or region code. Foreign key to CountryRegion.CountryRegionCode
	Group	nvarchar	50		Geographic area to which the sales territory belong
	Status	Int (tinyint)			Order current status. 1 = In process; 2 = Approved; 3 = Backordered; 4 = Rejected; 5 = Cancelled Default: 1
	SalesOrderNumber	nvarchar	25	N/U	Unique sales order identification number. Computed: isnull(N'SO'+CONVERT([nvarchar](23), [SalesOrderID]), N'***ERROR ***)
	AccountNumber	Nvarchar	15	N	Financial accounting number reference
F	CustomerID	Int			Customer identification number. Foreign key to Customer.BusinessEntityID
F	ContactID	Int			
F	TerritoryID	Int		N	Territory in which the sale was made. Foreign key to Territory. TerritoryID
F	BillToAddressID	Int			Customer billing address. Foreign key to Address.AddressID.
	CreditCardApprovalCode	Varchar	15	N	Approval code provided by the credit card company
	SubTotal	Money			Sales subtotal. Computed as SUM(SalesOrderDetail.LineTotal) for the appropriate SalesOrderID. Default: 0.00
	TaxAmt	Money			Tax amount. Default: 0.00
	Comment	Nvarchar	128	N	Sales representative comments.
	ModifiedDate	Datetime			Date and time the record was last updated. Default: getdate()

	CreditCardID	Int		N	Credit card identification number. Foreign key to CreditCard.CreditCardID
F	CurrencyRateID	Int		N	Currency exchange rate used. Foreign key to CurrencyRate.CurrencyRateID.
	ContactCreditCardCreditCardID	int			

SalesTerritory				
P/F	Field Name	Data Type	Null/Unique	Description/Attributes
P	TerritoryID	int		Primary key for SalesTerritory records. Identity / Auto increment column
	Name	varchar(50)		Sales territory description
	CountryRegionCode	varchar(3)		ISO standard country or region code. Foreign key to CountryRegion.CountryRegionCode.
	Group	varchar(50)		Geographic area to which the sales territory belong.
	SalesYTD	DECIMAL(13, 4)		Sales in the territory year to date. Default: 0.00
	SalesLastYear	DECIMAL(13, 4)		Sales in the territory the previous year. Default: 0.00

ShoppingCartItem				
P/F	Field Name	Data Type	Null/Unique	Description/Attributes
P	ShoppingCartItemID	int		Primary key for ShoppingCartItem records. Identity / Auto increment column
	ShoppingCartID	varchar(50)		Shopping cart identification number.
	GameID	int		Game ordered. Foreign key to Game.GameID.
	DateCreated	date		Date the time the record was created. Default: getdate()
	ModifiedDate	date		Date and time the record was last updated. Default: getdate()

SpecialOffer				
--------------	--	--	--	--

P/F	Field Name	Data Type	Null/Unique	Description/Attributes
P	SpecialOfferID	int		Primary key for SpecialOffer records. Identity / Auto increment column
	Description	varchar(255)		Discount description.
	Discount	DECIMAL(13, 4)		Discount percentage. Default: 0.00
	Type	varchar(50)		Discount type category.
	StartDate	date		Discount start date.
	EndDate	date		Discount end date.
	ModifiedDate	date		Date and time the record was last updated. Default: getdate()
	SpecialOfferProductGameID	int		

SpecialOfferGame				
P/F	Field Name	Data Type	Null/Unique	Description/Attributes
P	SpecialOfferID	int	U	Primary key for SpecialOfferGame records.
P	GameID	varchar(255)		Game of the special offer. Foreign key to Game.GameID.
	ModifiedDate	date		Date and time the record was last updated. Default: getdate()



## Person

SpecialOfferGame				
P/F	Field Name	Data Type	Null/Unique	Description/Attributes
<b>P</b>	AddressID	int	<b>U</b>	Primary key for Address records. Identity / Auto increment column
<b>F</b>	AddressTypeID	Int		Foreign key for AddressType
	AddressLine1	varchar(60)	<b>N</b>	First street address line.
	AddressLine2	varchar(60)	<b>N</b>	Second street address line.
	City	varchar(30)		Name of the city.
	StateProvinceID	int		Unique identification number for the state or province. Foreign key to StateProvince table.
	PostalCode	nvarchar(15)		Postal code for the street address.
	ModifiedDate	datetime		Date and time the record was last updated. Default: getdate()

AddressType				
P/F	Field Name	Data Type	Null/Unique	Description/Attributes
<b>P</b>	AddressTypeID	int	<b>U</b>	Primary key for AddressType records. Identity / Auto increment column
<b>F</b>	Name	Varchar(155)	<b>U</b>	Name of the Address Type

Contact				
P/F	Field Name	Data Type	Null/Unique	Description/Attributes
<b>P</b>	ContactID	int	<b>U</b>	Primary key for Contact records. Identity / Auto increment column
<b>F</b>	TitleID	Int		Foreign key for Title
	FirstName	varchar(255)		First Name of the contact
	MiddleName	varchar(255)	<b>N</b>	Middle Name of the contact
	LastName	varchar(255)		LastName of the contact
	EmailAddress	Varchar(255)	<b>U</b>	Email address of the contact
	Phone	int		Phone of the contact
	Password	int		Password ID of the contact
	AdditionalContactInfo	Varchar(255)	<b>N</b>	
	AddressID	Int		ForeignKey for Address
	ModifiedDate	datetime		Date and time the record was last updated. Default: getdate()

CountryRegion				
P/F	Field Name	Data Type	Null/Unique	Description/Attributes
<b>P</b>	CountryRegionCode	varchar(3)	<b>U</b>	ISO standard code for countries and regions.
	Name	varchar(50)	<b>U</b>	Country or region name.
	ModifiedDate	datetime		Date and time the record was last updated. Default: getdate()

StateProvince				
P/F	Field Name	Data Type	Null/Unique	Description/Attributes
<b>P</b>	StateProvinceID	int		Primary key for StateProvince records. Identity / Auto increment column
<b>F</b>	StateProvinceCode	char(3)		ISO standard state or province code.
	CountryRegionCode	varchar(3)		ISO standard country or region code. Foreign key to CountryRegion.CountryRegionCode.
	IsOnlyStateProvinceFlag	binary		0 = StateProvinceCode exists. 1 = StateProvinceCode unavailable
	Name	varchar(50)		State or province description.
	TerritoryID	int		ID of the territory in which the state or province is located. Foreign key to SalesTerritory.SalesTerritoryID.
	ModifiedDate	datetime		Date and time the record was last updated. Default: getdate()

Territory				
P/F	Field Name	Data Type	Null/Unique	Description/Attributes
<b>P</b>	TerritoryID	int		Primary key for Territory records. Identity / Auto increment column
	Name	varchar(255)		Name of the Territory
	CountryRegionCode	varchar(3)		ISO standard country or region code. Foreign key to CountryRegion.CountryRegionCode.
	ModifiedDate	datetime		Date and time the record was last updated. Default: getdate()

Title				
P/F	Field Name	Data Type	Null/Unique	Description/Attributes
<b>P</b>	TitleID	int	U	Primary key for Title records. Identity / Auto increment column
	Name	varchar(255)	U	Name of the Title

## Database Populating

Database Populating:

```
SELECT * FROM addresstype;
```

```
Show columns FROM addresstype;
```

```
INSERT INTO addresstype (Name)
VALUES(
    'Billing'
);
```

```
INSERT INTO addresstype (Name)
VALUES(
    'Home'
);
```

```
INSERT INTO addresstype (Name)
VALUES(
    'Main Office'
);
```

```
INSERT INTO addresstype (Name)
VALUES(
    'Primary'
);
```

```
INSERT INTO addresstype (Name)
VALUES(
    'Archive'
);
```

```
SELECT * FROM cardtype;
```

```
INSERT INTO cardtype (Name)
VALUES(
    'Mastercard'
);
```

```
INSERT INTO cardtype (Name)
VALUES(
    'VISA'
);
```

```
SELECT * FROM title;
```

```
INSERT INTO title (Name)
VALUES(
    'Sr.'
```

```
);
```

```
INSERT INTO title (Name)
```

```
VALUES(  
    'Mrs.'
```

```
);
```

```
INSERT INTO title (Name)
```

```
VALUES(  
    'Null'
```

```
);
```

```
INSERT INTO title (Name)
```

```
VALUES(  
    'Sra.'
```

```
);
```

```
INSERT INTO title (Name)
```

```
VALUES(  
    'Ms.'
```

```
);
```

```
INSERT INTO title (Name)
```

```
VALUES(  
    'Mr.'
```

```
);
```

```
SELECT * FROM countryregion;
```

```
Show columns FROM countryregion;
```

```
INSERT INTO countryregion (CountryRegionCode, Name)
```

```
VALUES(  
    'AD',  
    'Andorra'
```

```
);
```

```
INSERT INTO countryregion (CountryRegionCode, Name)
```

```
VALUES(  
    'AR',  
    'Argentina'
```

```
);
```

```
INSERT INTO countryregion (CountryRegionCode, Name)
```

```
VALUES(  
    'Be',  
    'Belgium'
```

```
);
```

```
INSERT INTO countryregion (CountryRegionCode, Name)
VALUES(
    'CA',
    'Canada'
);
```

```
INSERT INTO countryregion (CountryRegionCode, Name)
VALUES(
    'CN',
    'China'
);
```

```
/*INSERT INTO countryregion (CountryRegionCode, Name)
VALUES(
    'AD',
    'bla'
);*/
```

```
INSERT INTO countryregion (CountryRegionCode, Name)
VALUES(
    'CZ',
    'Czech Republic'
);
```

```
INSERT INTO countryregion (CountryRegionCode, Name)
VALUES(
    'DE',
    'Germany'
);
```

```
INSERT INTO countryregion (CountryRegionCode, Name)
VALUES(
    'ES',
    'Spain'
);
```

```
INSERT INTO countryregion (CountryRegionCode, Name)
VALUES(
    'GB',
    'United Kingdom'
);
```

```
INSERT INTO countryregion (CountryRegionCode, Name)
VALUES(
    'PL',
    'Poland'
);
```

```
);
```

```
INSERT INTO countryregion (CountryRegionCode, Name)
VALUES(
    'PT',
    'Portugal'
);
```

```
INSERT INTO countryregion (CountryRegionCode, Name)
VALUES(
    'US',
    'United States'
);
```

```
INSERT INTO countryregion (CountryRegionCode, Name)
VALUES(
    'FR',
    'France'
);
```

```
INSERT INTO countryregion (CountryRegionCode, Name)
VALUES(
    'AU',
    'Australia'
);
```

```
SELECT * FROM territory;
Show columns FROM territory;
```

```
INSERT INTO territory (Name, CountryRegionCode, Groupname)
VALUES(
    'NorthWest',
    'US',
    'North America'
);
```

```
INSERT INTO territory (Name, CountryRegionCode, Groupname)
VALUES(
    'NorthEast',
    'US',
    'North America'
);
```

```
INSERT INTO territory (Name, CountryRegionCode, Groupname)
VALUES(
    'Central',
    'US',
```

```
'North America'
);
```

```
INSERT INTO territory (Name, CountryRegionCode, Groupname)
VALUES(
    'SouthWest',
    'US',
    'North America'
);
```

```
INSERT INTO territory (Name, CountryRegionCode, Groupname)
VALUES(
    'SouthEast',
    'US',
    'North America'
);
```

```
INSERT INTO territory (Name, CountryRegionCode, Groupname)
VALUES(
    'Canada',
    'CA',
    'North America'
);
```

```
INSERT INTO territory (Name, CountryRegionCode, Groupname)
VALUES(
    'France',
    'FR',
    'Europe'
);
```

```
INSERT INTO territory (Name, CountryRegionCode, Groupname)
VALUES(
    'Germany',
    'DE',
    'Europe'
);
```

```
INSERT INTO territory (Name, CountryRegionCode, Groupname)
VALUES(
    'Australia',
    'AU',
    'Pacific'
);
```

```
INSERT INTO territory (Name, CountryRegionCode, Groupname)
VALUES(
```

```

        'United Kingdom',
        'GB', /*GR*/
        'Europe'
    );

```

```

INSERT INTO territory (Name, CountryRegionCode, Groupname)
VALUES(
    'Spain',
    'ES',
    'Europe'
);

```

```

INSERT INTO territory (Name, CountryRegionCode, Groupname)
VALUES(
    'Poland',
    'PL', /*GR*/
    'Europe'
);

```

```

SELECT * FROM TERRITORY;
SELECT * FROM stateprovince;
Show columns FROM stateprovince;

```

```

INSERT INTO stateprovince
(StateProvinceCode,CountryRegionCode,IsOnlyStateProvinceFlag, Name,TerritoryID)
VALUES(
    'ENG',
    'GB',
    1,
    'England',
    7 /*update to 13*/
);

```

```

INSERT INTO stateprovince
(StateProvinceCode,CountryRegionCode,IsOnlyStateProvinceFlag, Name,TerritoryID)
VALUES(
    'AB',
    'CA',
    0,
    'Alberta',
    6
);

```

```

SELECT * FROM TERRITORY;

```



```

INSERT INTO stateprovince
(StateProvinceCode,CountryRegionCode,IsOnlyStateProvinceFlag, Name,TerritoryID)
VALUES(
    'HU',
    'ES',
    0,
    'Huelva',
    15
);

```

```

INSERT INTO stateprovince
(StateProvinceCode,CountryRegionCode,IsOnlyStateProvinceFlag, Name,TerritoryID)
VALUES(
    'MAD',
    'ES',
    0,
    'Madrid',
    15
);

```

```

INSERT INTO stateprovince
(StateProvinceCode,CountryRegionCode,IsOnlyStateProvinceFlag, Name,TerritoryID)
VALUES(
    'BA',
    'ES',
    0,
    'Barcelona',
    15
);

```

```

INSERT INTO stateprovince
(StateProvinceCode,CountryRegionCode,IsOnlyStateProvinceFlag, Name,TerritoryID)
VALUES(
    'WRO',
    'PL',
    0,
    'Wroclaw',
    16
);

```

```

INSERT INTO stateprovince
(StateProvinceCode,CountryRegionCode,IsOnlyStateProvinceFlag, Name,TerritoryID)
VALUES(
    'WAR',
    'PL',
    0,
    'Warsaw',

```

```

16
);

INSERT INTO stateprovince
(StateProvinceCode,CountryRegionCode,IsOnlyStateProvinceFlag, Name,TerritoryID)
VALUES(
    'KRA',
    'PL',
    0,
    'Krakov',
    16
);

```

```

SELECT * FROM stateprovince;

```

```

Show columns FROM address;

```

```

INSERT INTO address (AddressTypeID, AddressLine1,
AddressLine2,City,StateProvinceID,PostalCode)
VALUES(
    3,
    'Avenida Julio Caro Baroja',
    'nº12 4ºA',
    'Huelva',
    2,
    21002
);

```

```

INSERT INTO address (AddressTypeID, AddressLine1,
AddressLine2,City,StateProvinceID,PostalCode)
VALUES(
    3,
    'Boleslaw Prusa',
    'nº9 410B',
    'Wroclaw',
    5,
    50319
);

```

```

SELECT * FROM contact;
Show columns FROM contact;

```

```

INSERT INTO contact (TitleID, FirstName,
LastName,EmailAdress,Phone>Password,AddressID)
VALUES(
    4,
    'Alba',

```

```
'Marquez Rodriguez',
'albamrqz751@gmail.com',
    601195832,
'123456789',
1
);
```

```
SELECT * FROM creditcard;
Show columns FROM creditcard;
INSERT INTO creditcard (CardTypeID, CardNumber, ExpMonth,ExpYear)
VALUES(
    1,
    1234567898765432,
    12,
    2025
);
```

```
INSERT INTO creditcard (CardTypeID, CardNumber, ExpMonth,ExpYear)
VALUES(
    1,
    0000000012348765,/*1234567898765432,*/
    4,
    2022
);
```

```
INSERT INTO creditcard (CardTypeID, CardNumber, ExpMonth,ExpYear)
VALUES(
    2,
    0120000012348765,/*1234567898765432,*/
    7,
    2028
);
```

```
SELECT * FROM contactcreditcard;
Show columns FROM contactcreditcard;
```

```
INSERT INTO contactcreditcard (ContactID, CreditCardID)
VALUES(
    1,
    1
);
```

```
/*INSERT INTO contactcreditcard (ContactID, CreditCardID)
VALUES(
    1,
    2
);*/
```

```

SELECT * FROM currency;
Show columns FROM currency;
INSERT INTO currency (CurrencyCode, Name)
VALUES(
    'EUR',
    'EURO'
);

```

```

INSERT INTO currency (CurrencyCode, Name)
VALUES(
    'PLN',
    'Zloty'
);

```

```

INSERT INTO currency (CurrencyCode, Name)
VALUES(
    'GBP',
    'United Kingdom Pound'
);

```

```

INSERT INTO currency (CurrencyCode, Name)
VALUES(
    'USD',
    'US Dollar'
);

```

```

INSERT INTO currency (CurrencyCode, Name)
VALUES(
    'AUD',
    'Australian Dollar'
);

```

```

SELECT * FROM countryregioncurrency;
Show columns FROM countryregioncurrency;

```

```

INSERT INTO countryregioncurrency (CountryRegionCode,CurrencyCode)
VALUES(
    'AU',
    'AUD'
);

```

```

select * from countryregion;

```

```

INSERT INTO countryregioncurrency (CountryRegionCode,CurrencyCode)

```

```
VALUES(  
    'AD',  
    'EUR'  
);
```

```
INSERT INTO countryregioncurrency (CountryRegionCode,CurrencyCode)  
VALUES(  
    'ES',  
    'EUR'  
);
```

```
INSERT INTO countryregioncurrency (CountryRegionCode,CurrencyCode)  
VALUES(  
    'BE',  
    'EUR'  
);
```

```
INSERT INTO countryregioncurrency (CountryRegionCode,CurrencyCode)  
VALUES(  
    'DE',  
    'EUR'  
);
```

```
INSERT INTO countryregioncurrency (CountryRegionCode,CurrencyCode)  
VALUES(  
    'FR',  
    'EUR'  
);
```

```
INSERT INTO countryregioncurrency (CountryRegionCode,CurrencyCode)  
VALUES(  
    'PL',  
    'PLN'  
);
```

```
INSERT INTO countryregioncurrency (CountryRegionCode,CurrencyCode)  
VALUES(  
    'PT',  
    'EUR'  
);
```

```
INSERT INTO countryregioncurrency (CountryRegionCode,CurrencyCode)  
VALUES(  
    'US',  
    'USD'  
);
```

```

INSERT INTO countryregioncurrency (CountryRegionCode,CurrencyCode)
VALUES(
    'GB',
    'GBP'
);

```

```

SELECT * FROM territory;
Show columns FROM customer;

```

```

INSERT INTO customer (TerritoryID,AccountNumber,ContactID)
VALUES(
    15,
    1,
    1
);

```

```

SELECT * FROM unitmeasure;
Show columns FROM unitmeasure;
INSERT INTO unitmeasure (UnitMeasureCode,Name)
VALUES(
    'GB',
    'GigaByte'
);

```

```

INSERT INTO unitmeasure (UnitMeasureCode,Name)
VALUES(
    'MB',
    'MegaByte'
);

```

```

SELECT * FROM genre;
Show columns FROM genre;

```

```

INSERT INTO genre (Name)
VALUES(
    'Action'
);

```

```

INSERT INTO genre (Name)
VALUES(
    'Fantasy'
);
INSERT INTO genre (Name)
VALUES(
    'Thriller'
);

```

```
INSERT INTO genre (Name)
VALUES(
    'Casual'
);
```

```
SELECT * FROM saga;
Show columns FROM saga;
```

```
INSERT INTO saga (Name,Quantity)
VALUES(
    'Just Cause',
    4
);
```

```
SELECT * FROM game;
Show columns FROM game;
INSERT INTO game
(Name,GameNumber,StandardCost,Storage,StorageUnitMeasureCode,GenreID,PlatformID,Description,SagaID,SellStartDate)
VALUES(
    'Just Cause 4 Reloaded',
    1,
    32.99,
    47,
    'GB',
    1,
    'PC',
    'Rebel agent Rico Rodríguez arrives in Solís, a vast world located in South America
mired in conflict, oppression and extreme weather conditions. Buckle up your
wingsuit, equip the customizable hook, and prepare to unleash the tempest! ',
    1,
    current_timestamp()
);
```

```
INSERT INTO game
(Name,GameNumber,StandardCost,Storage,StorageUnitMeasureCode,GenreID,PlatformID,Description,SellStartDate)
VALUES(
    'Minecraft',
    2,
    23.95,
    1,
    'GB',
    1,
    'PC',
```

```

    'Prepare for an adventure of limitless possibilities as you build, mine, battle
    creatures and explore the ever-changing landscape of Minecraft ',
    current_timestamp()
);

INSERT INTO game
(Name,GameNumber,StandardCost,GenreID,PlatformID,Description,SellStartDate)
VALUES(
    'Among Us',
    3,
    3.99,
    3,
    'PC',
    'A game for 4 to 15 players online or in local mode via Wi-Fi in which you have to
    prepare your spaceship for take off. But beware: one or more randomly chosen players
    from the crew are imposters ready to kill the rest! ',
    current_timestamp()
);

SELECT * FROM game;
Show columns FROM gamereview;

INSERT INTO gamereview (GameID,ReviewerName,EmailAddress,Rating)
VALUES(
    4,
    'Alba',
    'albamrqz751@gmail.com',
    8
);

INSERT INTO gamereview (GameID,ReviewerName,EmailAddress,Rating,Comments)
VALUES(
    4,
    'Mary',
    'mary@gmail.com',
    6,
    'Good Game'
);

/*SELECT * FROM gamelistpricehistory;
Show columns FROM gamelistpricehistory;
INSERT INTO gamelistpricehistory (GameID,StartDate,ListPrice)
VALUES(
    4,
    current_timestamp(),
    32.99
);*/

```



```

SELECT * FROM shoppingcartitem;
Show columns FROM shoppingcartitem;
INSERT INTO shoppingcartitem (ShoppingCartID,GameID)
VALUES(
    1,
    2
);

```

```

INSERT INTO shoppingcartitem (ShoppingCartID,GameID)
VALUES(
    1,
    4
);

```

```

INSERT INTO shoppingcartitem (ShoppingCartID,GameID)
VALUES(
    2,
    2
);

```

```

INSERT INTO shoppingcartitem (ShoppingCartID,GameID)
VALUES(
    3,
    3
);

```

```

SELECT * FROM game_shoppingcartitem;
Show columns FROM game_shoppingcartitem;

```

```

INSERT INTO game_shoppingcartitem (GameID,shoppingcartitemID)
VALUES(
    2,
    1
);

```

```

INSERT INTO game_shoppingcartitem (GameID,shoppingcartitemID)
VALUES(
    3,
    2
);

```

```

SELECT * FROM gamephoto;
Show columns FROM gamephoto;

```

```
INSERT INTO gamephoto (Icon,Header)
VALUES(
    'url1',
    'url2'
);
```

```
INSERT INTO gamephoto (Icon,Header)
VALUES(
    'url1',
    'url2'
);
```

```
INSERT INTO gamephoto (Header,Preview)
VALUES(
    'url1',
    'url2'
);
```

```
INSERT INTO gamephoto (Icon,Header,Preview)
VALUES(
    'url1',
    'url2',
    'url3'
);
```

```
SELECT * FROM gamevideo;
Show columns FROM gamevideo;
```

```
INSERT INTO gamevideo (ReviewVideo,PreviewVideo)
VALUES(
    'url1',
    'url2'
);
```

```
INSERT INTO gamevideo (PreviewVideo)
VALUES(
    'url1'
);
```

```
INSERT INTO gamevideo (PreviewVideo)
VALUES(
    'url1'
);
```

```
INSERT INTO gamevideo (reviewVideo)
VALUES(
    'url1'
```

```
);
```

```
SELECT * FROM gameaudiovisuals;
Show columns FROM gameaudiovisuals;
```

```
INSERT INTO gameaudiovisuals (GameID,GamePhotoID)
VALUES(
    2,
    1
);
```

```
INSERT INTO gameaudiovisuals (GameID,GamePhotoID,GameVideoID)
VALUES(
    1,
    2,
    1
);
```

```
SELECT * FROM gamelistpricehistory;
Show columns FROM gamelistpricehistory;
```

```
INSERT INTO gamelistpricehistory (GameID,StartDate,ListPrice)
VALUES(
    2,
    current_timestamp(),
    32.99
);
```

```
SELECT * FROM specialoffergame;
Show columns FROM specialoffergame;
```

```
INSERT INTO specialoffergame (SpecialOfferID,GameID)
VALUES(
    1,
    2
);
```

```
INSERT INTO specialoffergame (SpecialOfferID,GameID)
VALUES(
    2,
    3
);
```

```
INSERT INTO specialoffergame (SpecialOfferID,GameID)
VALUES(
    3,
    4
);
```

```
);
```

```
SELECT * FROM specialoffer;
Show columns FROM specialoffer;
```

```
INSERT INTO specialoffer
(SpecialOfferID,Description,Discount,Type,StartDate,EndDate,SpecialOfferProductGameID)
VALUES(
    1,
    'No Discount',
    0,
    'No discount',
    current_timestamp(),
    '2030-11-23 00:00:00',
    1
);
```

```
INSERT INTO specialoffer
(SpecialOfferID,Description,Discount,Type,StartDate,EndDate,SpecialOfferProductGameID)
VALUES(
    2,
    'No Discount',
    0,
    'No discount',
    current_timestamp(),
    '2030-11-23 00:00:00',
    2
);
```

```
INSERT INTO specialoffer
(SpecialOfferID,Description,Discount,Type,StartDate,EndDate,SpecialOfferProductGameID)
VALUES(
    3,
    'No Discount',
    0,
    'No discount',
    current_timestamp(),
    '2030-11-23 00:00:00',
    3
);
```

```
SELECT * FROM salesorderdetail;
Show columns FROM salesorderdetail;
```

```

INSERT INTO salesorderdetail
(salesorderdetailID,OrderQty,GameID,UnitPrice,SpecialOfferID,LineTotal)
VALUES(
    1,
    1,
    2,
    32.99,
    0,
    32.99
);

```

```

SELECT * FROM salesorderheader;
Show columns FROM salesorderheader;

```

```

INSERT INTO salesorderheader
(SalesOrderID,RevisionNumber,DueDate,Status,CustomerID,ContactID,BillToAddressID,
SubTotal,TaxAmt,ContactCreditCardCreditCardID)
VALUES(
    3,
    1,
    '2021-12-25 00:00:00',
    4,
    1,
    1,
    1,
    32.99,
    0,
    1
);

```

```

SELECT * FROM salesterritory;
Show columns FROM salesterritory;

```

```

INSERT INTO salesterritory (Name, CountryRegionCode,
`Group`,SalesYTD,SalesLastYear,CostYTD,CostLastYear)
VALUES(
    'NorthWest',
    'US',
    'North America',
    0,
    0,
    0,
    0
);

```

```
INSERT INTO salesterritory (Name, CountryRegionCode,
`Group`,SalesYTD,SalesLastYear,CostYTD,CostLastYear)
VALUES(
    'NorthEast',
    'US',
    'North America',
    0,0,0,0
);
```

```
INSERT INTO salesterritory (Name, CountryRegionCode,
`Group`,SalesYTD,SalesLastYear,CostYTD,CostLastYear)
VALUES(
    'Central',
    'US',
    'North America',
    0,0,0,0
);
```

```
INSERT INTO salesterritory (Name, CountryRegionCode,
`Group`,SalesYTD,SalesLastYear,CostYTD,CostLastYear)VALUES(
    'SouthWest',
    'US',
    'North America',
    0,0,0,0
);
```

```
INSERT INTO salesterritory (Name, CountryRegionCode,
`Group`,SalesYTD,SalesLastYear,CostYTD,CostLastYear)
VALUES(
    'SouthEast',
    'US',
    'North America',
    0,0,0,0
);
```

```
INSERT INTO salesterritory (Name, CountryRegionCode,
`Group`,SalesYTD,SalesLastYear,CostYTD,CostLastYear)
VALUES(
    'Canada',
    'CA',
    'North America',
    0,0,0,0
);
```

```
INSERT INTO salesterritory (Name, CountryRegionCode,
`Group`,SalesYTD,SalesLastYear,CostYTD,CostLastYear)
VALUES(
```

```

        'France',
        'FR',
        'Europe',
        0,0,0,0
    );

```

```

INSERT INTO salesterritory (Name, CountryRegionCode,
`Group`,SalesYTD,SalesLastYear,CostYTD,CostLastYear)
VALUES(
        'Germany',
        'DE',
        'Europe',
        0,0,0,0
    );

```

```

INSERT INTO salesterritory (Name, CountryRegionCode,
`Group`,SalesYTD,SalesLastYear,CostYTD,CostLastYear)
VALUES(
        'Australia',
        'AU',
        'Pacific',
        0,0,0,0
    );

```

```

INSERT INTO salesterritory (Name, CountryRegionCode,
`Group`,SalesYTD,SalesLastYear,CostYTD,CostLastYear)
VALUES(
        'United Kingdom',
        'GB',
        'Europe',
        0,0,0,0
    );

```

## CRUD Operations

Most of the CRUD operations are on the files attached with the submission pdf. In this document there will be just some examples.

### Create

```
CREATE TABLE Game (
    GameID int PRIMARY KEY NOT NULL UNIQUE AUTO_INCREMENT,
    Name varchar(50) NOT NULL UNIQUE,
    GameNumber varchar(25) NOT NULL UNIQUE,
    StandardCost DECIMAL(13, 4) NOT NULL DEFAULT 0.00,
    ListPrice Decimal(13,4),
    Storage varchar(5),
    StorageUnitMeasureCode char(3),
    GenreID int,
    PlatformID char(5),
    Description varchar(255),
    SagaID int,
    GameReviewID int,
    SellStartDate datetime NOT NULL,
    SellEndDate datetime,
    LaunchDate datetime,
    ModifiedDate datetime NOT NULL DEFAULT CURRENT_TIMESTAMP
);
```

```
CREATE TABLE UnitMeasure (
    UnitMeasureCode char(3) NOT NULL PRIMARY KEY UNIQUE ,
    Name varchar(50) NOT NULL UNIQUE,
    ModifiedDate datetime NOT NULL DEFAULT CURRENT_TIMESTAMP
);
```

```
CREATE TABLE Genre (
    GenreID int PRIMARY KEY NOT NULL UNIQUE AUTO_INCREMENT,
    Name varchar(50) NOT NULL UNIQUE,
    Description varchar(255),
    ModifiedDate datetime NOT NULL DEFAULT current_timestamp
);
```

```
CREATE TABLE GameAudiovisuals (
    GameID int PRIMARY KEY NOT NULL UNIQUE AUTO_INCREMENT,
    GamePhotoID int UNIQUE,
    GameVideoID int UNIQUE,
    ModifiedDate datetime NOT NULL DEFAULT current_timestamp
);
```

```
CREATE TABLE GamePhoto (
    GamePhotoID int PRIMARY KEY NOT NULL UNIQUE AUTO_INCREMENT,
    Icon varchar(50),
    Wallpaper varchar(50),
```



```

        Header varchar(50),
        Preview varchar(50),
        ModifiedDate datetime NOT NULL DEFAULT current_timestamp
    );

CREATE TABLE GameVideo (
    GameVideoID int PRIMARY KEY NOT NULL UNIQUE AUTO_INCREMENT,
    ReviewVideo varchar(50),
    PreviewVideo varchar(50),
    ModifiedDate datetime NOT NULL DEFAULT current_timestamp
);

CREATE TABLE GameReview (
    GameReviewID int PRIMARY KEY NOT NULL UNIQUE AUTO_INCREMENT,
    GameID int NOT NULL,
    ReviewerName varchar(50) NOT NULL,
    ReviewDate datetime NOT NULL default current_timestamp,
    EmailAddress varchar(50) NOT NULL,
    Rating int NOT NULL,
    Comments varchar(3000),
    ModifiedDate datetime NOT NULL DEFAULT current_timestamp
);

CREATE TABLE UnitMeasure (
    UnitMeasureCode char(3) NOT NULL UNIQUE PRIMARY KEY,
    Name varchar(50) NOT NULL UNIQUE,
    ModifiedDate datetime NOT NULL DEFAULT current_timestamp
);

CREATE TABLE GameListPriceHistory (
    GameID int NOT NULL,
    StartDate datetime NOT NULL,
    EndDate datetime,
    ListPrice decimal(13,4) NOT NULL,
    ModifiedDate datetime NOT NULL DEFAULT current_timestamp,
    Primary key(GameID,StartDate)
);

CREATE TABLE Game_ShoppingCartItem (
    GameID int NOT NULL,
    ShoppingCartItemID int NOT NULL,
    PRIMARY KEY (GameID, ShoppingCartItemID));

CREATE TABLE Saga (
    SagaID int NOT NULL UNIQUE PRIMARY KEY AUTO_INCREMENT,
    Name varchar(50) NOT NULL,
    Quantity int NOT NULL,

```

```

        ModifiedDate datetime NOT NULL DEFAULT current_timestamp
    );

/*Sales*/
CREATE TABLE CountryRegionCurrency(
    CountryRegionCode varchar(3) not null,
    CurrencyCode char(3) not null,
    ModifiedDate datetime NOT NULL DEFAULT current_timestamp,
    PRIMARY KEY (CountryRegionCode, CurrencyCode)
);

CREATE TABLE CreditCard (
    CreditCardID int PRIMARY KEY NOT NULL UNIQUE AUTO_INCREMENT,
    CardTypeID int NOT NULL,
    CardNumber varchar(25) NOT NULL UNIQUE,
    ExpMonth TINYINT NOT NULL,
    ExpYear smallint NOT NULL,
    ModifiedDate datetime NOT NULL DEFAULT current_timestamp
);

CREATE TABLE CardType (
    CardTypeID int PRIMARY KEY NOT NULL UNIQUE AUTO_INCREMENT,
    Name varchar(25) NOT NULL UNIQUE,
    ModifiedDate datetime NOT NULL DEFAULT current_timestamp
);

CREATE TABLE Currency (
    CurrencyCode char(3) PRIMARY KEY NOT NULL,
    Name varchar(25) NOT NULL UNIQUE,
    ModifiedDate datetime NOT NULL DEFAULT current_timestamp
);

CREATE TABLE CurrencyRate (
    CurrencyRateID int primary KEY NOT NULL UNIQUE AUTO_INCREMENT,
    CurrencyRateDate datetime NOT NULL,
    FromCurrencyCode char(3) NOT NULL,
    ToCurrencyCode char(3) NOT NULL,
    AverageRate Decimal(13,4) NOT NULL,
    EndOfDayRate Decimal(13,4) NOT NULL,
    ModifiedDate datetime NOT NULL DEFAULT current_timestamp,
    constraint UC_CurrencyRate Unique
    (CurrencyRateDate,FromCurrencyCode,ToCurrencyCode)
);

CREATE TABLE Customer (
    CustomerID int PRIMARY KEY NOT NULL UNIQUE AUTO_INCREMENT,
    TerritoryID int,

```

```

    AccountNumber varchar(10) NOT NULL UNIQUE,
    ContactID int NOT NULL,
    ModifiedDate datetime NOT NULL DEFAULT current_timestamp
);

CREATE TABLE ContactCreditCard (
    ContactID int NOT NULL,
    CreditCardID int NOT NULL,
    ModifiedDate datetime NOT NULL DEFAULT current_timestamp,
    PRIMARY KEY (ContactID, CreditCardID),
    constraint UC_ContactCreditCard Unique (ContactID,CreditCardID)
);

CREATE TABLE SalesOrderDetail (
    SalesOrderID int NOT NULL auto_increment,
    SalesOrderDetailID int NOT NULL,
    TrackingNumber int,
    OrderQty int,
    GameID int NOT NULL,
    SpecialOfferID int NOT NULL,
    UnitPrice int,
    UnitPriceDiscount int,
    LineTotal int,
    ModifiedDate DATETIME,
    PRIMARY KEY (SalesOrderID, SalesOrderDetailID)
);

CREATE TABLE SalesOrderHeader (
    SalesOrderID int PRIMARY KEY NOT NULL UNIQUE AUTO_INCREMENT,
    RevisionNumber tinyint NOT NULL DEFAULT 0,
    OrderDate datetime NOT NULL DEFAULT CURRENT_TIMESTAMP,
    DueDate datetime NOT NULL,
    Status tinyint NOT NULL DEFAULT 1,
    SalesOrderNumber varchar(25) UNIQUE,
    AccountNumber varchar(15),
    CustomerID int NOT NULL,
    ContactID int NOT NULL,
    TerritoryID int,
    BillToAddressID int NOT NULL,
    CreditCardApprovalCode varchar(15),
    SubTotal DECIMAL(13, 4) NOT NULL DEFAULT 0.00, /*DECIMAL(13, 4) =
money*/
    TaxAmt DECIMAL(13, 4) NOT NULL DEFAULT 0.00,
    Comment varchar(128),
    ModifiedDate datetime NOT NULL DEFAULT current_timestamp,
    CreditCardID int,
    CurrencyRateID int,

```

```

        ContactCreditCardCreditCardID int NOT NULL);
/*PRIMARY KEY (SalesOrderID), UNIQUE INDEX (SalesOrderID)*/

CREATE TABLE SalesTerritory (
    TerritoryID int PRIMARY KEY NOT NULL UNIQUE AUTO_INCREMENT,
    Name varchar(50) NOT NULL UNIQUE,
    CountryRegionCode varchar(3) NOT NULL,
    `Group` varchar(50) NOT NULL,
    SalesYTD DECIMAL(13, 4) NOT NULL default 0,
    SalesLastYear DECIMAL(13, 4) NOT NULL default 0,
    CostYTD DECIMAL(13, 4) NOT NULL default 0,
    CostLastYear DECIMAL(13, 4) NOT NULL default 0,
    ModifiedDate datetime NOT NULL DEFAULT current_timestamp
);

CREATE TABLE ShoppingCartItem (
    ShoppingCartItemID int PRIMARY KEY NOT NULL UNIQUE AUTO_INCREMENT,
    ShoppingCartID varchar(50) NOT NULL,
    GameID int NOT NULL,
    DateCreated datetime NOT NULL DEFAULT current_timestamp,
    ModifiedDate datetime NOT NULL DEFAULT current_timestamp
);

CREATE TABLE SpecialOffer (
    SpecialOfferID int PRIMARY KEY NOT NULL UNIQUE,
    Description varchar(255) NOT NULL,
    Discount DECIMAL(13, 4) NOT NULL default 0,
    Type varchar(50) NOT NULL,
    StartDate date NOT NULL,
    EndDate date NOT NULL,
    ModifiedDate datetime NOT NULL DEFAULT current_timestamp,
    SpecialOfferProductGameID int NOT NULL
);

/*Person*/

CREATE TABLE SpecialOfferGame (
    SpecialOfferID int NOT NULL UNIQUE,
    GameID int NOT NULL,
    ModifiedDate datetime NOT NULL DEFAULT current_timestamp,
    PRIMARY KEY (SpecialOfferID, GameID)
);

CREATE TABLE Address (
    AddressID int NOT NULL unique PRIMARY KEY AUTO_INCREMENT,
    AddressTypeID int NOT NULL,
    AddressLine1 varchar(60),

```

```

        AddressLine2 varchar(60),
        City varchar(30) NOT NULL,
        StateProvinceID int NOT NULL,
        PostalCode int NOT NULL,
        ModifiedDate datetime NOT NULL DEFAULT current_timestamp
    );

CREATE TABLE AddressType (
    AddressTypeID int NOT NULL unique PRIMARY KEY AUTO_INCREMENT,
    Name varchar(255) NOT NULL UNIQUE
);

CREATE TABLE Contact (
    ContactID int NOT NULL unique PRIMARY KEY AUTO_INCREMENT,
    TitleID int NOT NULL,
    FirstName varchar(255) NOT NULL,
    MiddleName varchar(255),
    LastName varchar(255) NOT NULL,
    EmailAddress varchar(255) NOT NULL UNIQUE,
    Phone int NOT NULL,
    Password int NOT NULL,
    AdditionalContactInfo varchar(255),
    ModifiedDate datetime NOT NULL DEFAULT current_timestamp,
    AddressID int NOT NULL
);

CREATE TABLE CountryRegion (
    CountryRegionCode varchar(3) PRIMARY KEY UNIQUE NOT NULL,
    Name varchar(255) NOT NULL Unique,
    ModifiedDate datetime NOT NULL DEFAULT current_timestamp
);

CREATE TABLE StateProvince (
    StateProvinceID int NOT NULL unique PRIMARY KEY AUTO_INCREMENT,
    CountryRegionCode varchar(3) NOT NULL,
    IsOnlyStateProvinceFlag binary(1) NOT NULL DEFAULT 0,
    Name varchar(255) NOT NULL,
    TerritoryID int NOT NULL,
    ModifiedDate datetime NOT NULL DEFAULT current_timestamp
);

CREATE TABLE Territory (
    TerritoryID int NOT NULL unique PRIMARY KEY AUTO_INCREMENT,
    Name varchar(255) NOT NULL UNIQUE,
    CountryRegionCode varchar(3) NOT NULL,
    ModifiedDate datetime NOT NULL DEFAULT current_timestamp
);

```

```
CREATE TABLE Title (  
    TitleID int NOT NULL unique PRIMARY KEY AUTO_INCREMENT,  
    Name varchar(255) NOT NULL UNIQUE  
);
```

## Read

```
SELECT * FROM address;  
SELECT * FROM addresstype;  
SELECT * FROM cardtype;  
SELECT * FROM contact;  
SELECT * FROM contactcreditcard;  
SELECT * FROM countryregion;  
SELECT * FROM countryregioncurrency;  
SELECT * FROM creditcard;  
SELECT * FROM currency;  
SELECT * FROM customer;  
SELECT * FROM game;  
SELECT * FROM game_shoppingcartitem;  
SELECT * FROM gameaudiovisuals;  
SELECT * FROM gamelistpricehistory;  
SELECT * FROM gamephoto;  
SELECT * FROM gamereview;  
SELECT * FROM gamevideo;  
SELECT * FROM genre;  
SELECT * FROM saga;  
SELECT * FROM salesorderdetail;  
SELECT * FROM salesorderheader;  
SELECT * FROM salesterritory;  
SELECT * FROM shoppingcartitem;  
SELECT * FROM specialoff;  
SELECT * FROM specialoffergame;  
SELECT * FROM stateprovince;  
SELECT * FROM territory;  
SELECT * FROM title;
```

```
select * from address  
where City='Wroclaw'
```

```
select * from address  
where City='Wroclaw';
```

```
select * from territory  
where CountryRegionCode='US';
```

```
select city from address as ad  
join stateprovince as st on ad.StateProvinceID=st.StateProvinceID  
where st.CountryRegionCode='PL';
```



## Update

To set relations between databases:

```
ALTER TABLE Game_ShoppingCartItem ADD CONSTRAINT
FKGame_ShoppingCartItem_Game FOREIGN KEY (GameID) REFERENCES Game
(GameID);
ALTER TABLE Game ADD CONSTRAINT FKGame_Genre FOREIGN KEY (GenreID)
REFERENCES Genre (GenreID);
ALTER TABLE Game ADD CONSTRAINT FKGame_Saga FOREIGN KEY (SagaID)
REFERENCES Saga (SagaID);
ALTER TABLE Game_ShoppingCartItem ADD CONSTRAINT FKGame_ShoppingCartItem
FOREIGN KEY (ShoppingCartItemID) REFERENCES ShoppingCartItem
(ShoppingCartItemID);
ALTER TABLE CreditCard ADD CONSTRAINT FKCreditCard_CardType FOREIGN KEY
(CardTypeID) REFERENCES CardType (CardTypeID);
ALTER TABLE CurrencyRate ADD CONSTRAINT FKCurrencyRate_CurrencyFROM
FOREIGN KEY (FromCurrencyCode) REFERENCES Currency (CurrencyCode);
ALTER TABLE CurrencyRate ADD CONSTRAINT FKCurrencyRate_CurrencyTO FOREIGN
KEY (ToCurrencyCode) REFERENCES Currency (CurrencyCode);
ALTER TABLE ContactCreditCard ADD CONSTRAINT FKContactCreditCard_CreditCard
FOREIGN KEY (CreditCardID) REFERENCES CreditCard (CreditCardID);
ALTER TABLE Customer ADD CONSTRAINT FKCustomer_Territory FOREIGN KEY
(TerritoryID) REFERENCES Territory (TerritoryID);
ALTER TABLE Territory ADD CONSTRAINT FKTerritory_CountryRegion FOREIGN KEY
(CountryRegionCode) REFERENCES CountryRegion (CountryRegionCode);
ALTER TABLE Customer ADD CONSTRAINT FKCustomer_Contact FOREIGN KEY
(ContactID) REFERENCES Contact (ContactID);
ALTER TABLE Contact ADD CONSTRAINT FKContact_Title FOREIGN KEY (TitleID)
REFERENCES Title (TitleID);
ALTER TABLE Contact ADD CONSTRAINT FKContact_Address FOREIGN KEY (AddressID)
REFERENCES Address (AddressID);
ALTER TABLE Address ADD CONSTRAINT FKAddress_AddressType FOREIGN KEY
(AddressTypeID) REFERENCES AddressType (AddressTypeID);
ALTER TABLE Address ADD CONSTRAINT FKAddress_StateProvince FOREIGN KEY
(StateProvinceID) REFERENCES StateProvince (StateProvinceID);
ALTER TABLE StateProvince ADD CONSTRAINT FKStateProvince_CountryRegion
FOREIGN KEY (CountryRegionCode) REFERENCES CountryRegion (CountryRegionCode);
ALTER TABLE SalesOrderHeader ADD CONSTRAINT
FKSalesOrderHeader_SalesOrderDetail FOREIGN KEY (SalesOrderID) REFERENCES
SalesOrderDetail (SalesOrderID);
ALTER TABLE SalesOrderHeader ADD CONSTRAINT FKSalesOrderHeader_Contact
FOREIGN KEY (ContactID) REFERENCES Contact (ContactID);
ALTER TABLE SalesOrderHeader ADD CONSTRAINT
FKSalesOrderHeader_ContactCreditCard2 FOREIGN KEY (ContactID, CreditCardID)
REFERENCES ContactCreditCard (ContactID, CreditCardID);
ALTER TABLE SalesOrderHeader ADD CONSTRAINT FKSalesOrderHeader_Territory
FOREIGN KEY (TerritoryID) REFERENCES Territory (TerritoryID);
```

```

ALTER TABLE SalesOrderHeader ADD CONSTRAINT FKSalesOrderHeader_SalesTerritory
FOREIGN KEY (TerritoryID) REFERENCES SalesTerritory (TerritoryID);
ALTER TABLE SalesOrderHeader ADD CONSTRAINT FKSalesOrderHeader_CurrencyRate
FOREIGN KEY (CurrencyRateID) REFERENCES CurrencyRate (CurrencyRateID);
ALTER TABLE GameListPriceHistory ADD CONSTRAINT FKGameListPriceHistory_Game
FOREIGN KEY (GameID) REFERENCES Game (GameID);
ALTER TABLE GameReview ADD CONSTRAINT FKGameReview_Game FOREIGN KEY
(GameID) REFERENCES Game (GameID);
/*ALTER TABLE Game ADD CONSTRAINT FKGame_GameAudiovisuals FOREIGN KEY
(GameID) REFERENCES GameAudiovisuals (GameID);*/
/*ALTER TABLE Game DROP FOREIGN KEY FKGame_GameAudiovisuals;*/
ALTER TABLE GameAudiovisuals ADD CONSTRAINT FKGameAudiovisuals_GamePhoto
FOREIGN KEY (GamePhotoID) REFERENCES GamePhoto (GamePhotoID);
ALTER TABLE GameAudiovisuals ADD CONSTRAINT FKGameAudiovisuals_GameVideo
FOREIGN KEY (GameVideoID) REFERENCES GameVideo (GameVideoID);
ALTER TABLE SalesOrderHeader ADD CONSTRAINT FKSalesOrderHeader_Customer
FOREIGN KEY (CustomerID) REFERENCES Customer (CustomerID);
ALTER TABLE SpecialOfferGame ADD CONSTRAINT FKSpecialOfferGame_Game
FOREIGN KEY (GameID) REFERENCES Game (GameID);
/*ALTER TABLE SpecialOfferGame ADD CONSTRAINT FKSpecialOfferGame_SpecialOffer
FOREIGN KEY (SpecialOfferID) REFERENCES SpecialOffer (SpecialOfferID);*/
/*ALTER TABLE SpecialOfferGame DROP FOREIGN KEY
FKSpecialOfferGame_SpecialOffer;*/

```

```

/*ALTER TABLE SpecialOffer ADD CONSTRAINT FKSpecialOffer FOREIGN KEY
(SpecialOfferID, SpecialOfferProductGameID) REFERENCES SpecialOfferGame
(SpecialOfferID, GameID);
ALTER TABLE SpecialOffer DROP FOREIGN KEY FKSpecialOffer;*/

```

```

/*ALTER TABLE SalesOrderDetail ADD CONSTRAINT
FKSalesOrderDetail_SpecialOfferGame FOREIGN KEY (SpecialOfferID, GameID)
REFERENCES SpecialOfferGame (SpecialOfferID, GameID);
ALTER TABLE SalesOrderDetail DROP FOREIGN KEY
FKSalesOrderDetail_SpecialOfferGame;*/

```

```

ALTER TABLE ContactCreditCard ADD CONSTRAINT FKContactCreditCard FOREIGN KEY
(ContactID) REFERENCES Contact (ContactID);

```

```

ALTER TABLE countryregioncurrency ADD CONSTRAINT FKcountryregioncurrency
FOREIGN KEY (CountryRegionCode) REFERENCES CountryRegion (CountryRegionCode);
ALTER TABLE gamelistpricehistory ADD CONSTRAINT FKGameListPriceHistory FOREIGN
KEY (GameID) REFERENCES Game (GameID);

```

```

/*ALTER TABLE unitmeasure ADD CONSTRAINT FKunitmeasure FOREIGN KEY
(UnitMeasureCode) REFERENCES Game (StorageUnitMeasureCode);*/

```

Other updates on the tables structure:

```
ALTER TABLE territory
ADD COLUMN GroupName VARCHAR(50) AFTER CountryRegionCode;
ALTER TABLE STATEPROVINCE
ADD COLUMN StateProvinceCode char(3) AFTER StateProvinceID;
Updates referring to tables data:
UPDATE stateprovince
SET TerritoryID=13
WHERE Name='England';
```

## DELETE

```
INSERT INTO address (AddressTypeID, AddressLine1, City, StateProvinceID, PostalCode)
VALUES(
    3,
    'test street',
    'Madrid',
    2,
    21000
);
```

```
SELECT * FROM ADDRESS;
```

```
DELETE FROM address
WHERE City='Madrid';
```

```
SELECT * FROM ADDRESS
```

## Additional Indexes

## List of Applications views

### Main Login Screen

Data:

- User login information (email and password from Contact table)
- User registration information (email, password, first name, last name... -> Contact table)

### Register

Data:

- User personal information -> Contact table, Address Table

### Main Screen

- Game information -> Game
- Game offers information -> Game, GameSpecialOffer, GameOffer
- User personal information -> Contact table

### Show Personal User information

Data:

- User personal information -> Contact table

### Filtered Offers

Data:

- Game information -> Game
- Game offers information -> Game, GameSpecialOffer, GameOffer

### Show Game Information

Data:

- Game information -> Game
- Game AudioVisuals -> GameAdivisuals, GamePhoto, GameVideo
- Other Game's Saga -> Saga
- Game Review's -> GameReview

### Add Review

Data:

- Game Review's -> GameReview

### Show payment information

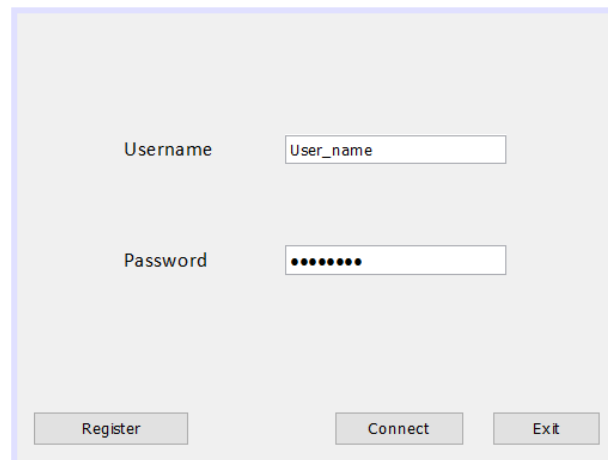
Data:

- Personal User Information -> Contact
- Order -> SalesOrderHeader, SalesOrderDetail
- CreditCard -> ContactCreditCard, CreditCard, CardType

```
graph TD
    MainScreen[Main Screen] --> Register((Register))
    MainScreen --> Login((Login))
    Register --> WaitingEmail[Waiting Email confirmation]
    WaitingEmail --> ConfirmEmail((Confirm Email))
    ConfirmEmail --> MainScreen
    Login --> MainUserPage[Main User Page]
    MainUserPage --> ClickReturn1((Click return))
    ClickReturn1 --> ShowPersonalInfo[Show Personal User Information]
    ShowPersonalInfo --> ClickReturn1
    MainUserPage --> EditPersonalInfo([Edit Personal Information])
    EditPersonalInfo --> ClickReturn2((Click return))
    ClickReturn2 --> ShowPersonalInfo
    MainUserPage --> SeeOffers((See offers))
    SeeOffers --> FilteredOffers[Filtered Offers]
    FilteredOffers --> ClickContinueBuying((Click Continue buying))
    ClickContinueBuying --> AskContinueBuying[Ask: continue buying / pay]
    AskContinueBuying --> Pay((Pay))
    Pay --> ShowPaymentInfo[Show Payment information]
    ShowPaymentInfo --> AddCreditCard((Add Credit Card))
    AddCreditCard --> ShowPaymentInfo
    ShowPaymentInfo --> ConfirmPayment((Confirm Payment))
    ConfirmPayment --> MainScreen
    MainUserPage --> LookForGame((Look for a Game))
    LookForGame --> ClickReturn3((Click return))
    ClickReturn3 --> FilteredOffers
    FilteredOffers --> ClickOnOffer((Click on offer))
    ClickOnOffer --> ShowGameInfo[Show Game Information]
    ShowGameInfo --> ClickReturn4((Click return))
    ClickReturn4 --> FilteredOffers
    ShowGameInfo --> ClickSeeReviews((Click See reviews))
    ClickSeeReviews --> ShowGameReviews[Show Game Reviews]
    ShowGameReviews --> ClickReturn5((Click return))
    ClickReturn5 --> FilteredOffers
    ShowGameReviews --> ClickAddReview((Click Add Review))
    ClickAddReview --> AddReview[Add Review]
    AddReview --> PublishReview([Publish Review])
    PublishReview --> ClickReturn6((Click return))
    ClickReturn6 --> ShowGameReviews
    ShowGameReviews --> ClickAddToCart((Click add to cart))
    ClickAddToCart --> AskContinueBuying
```

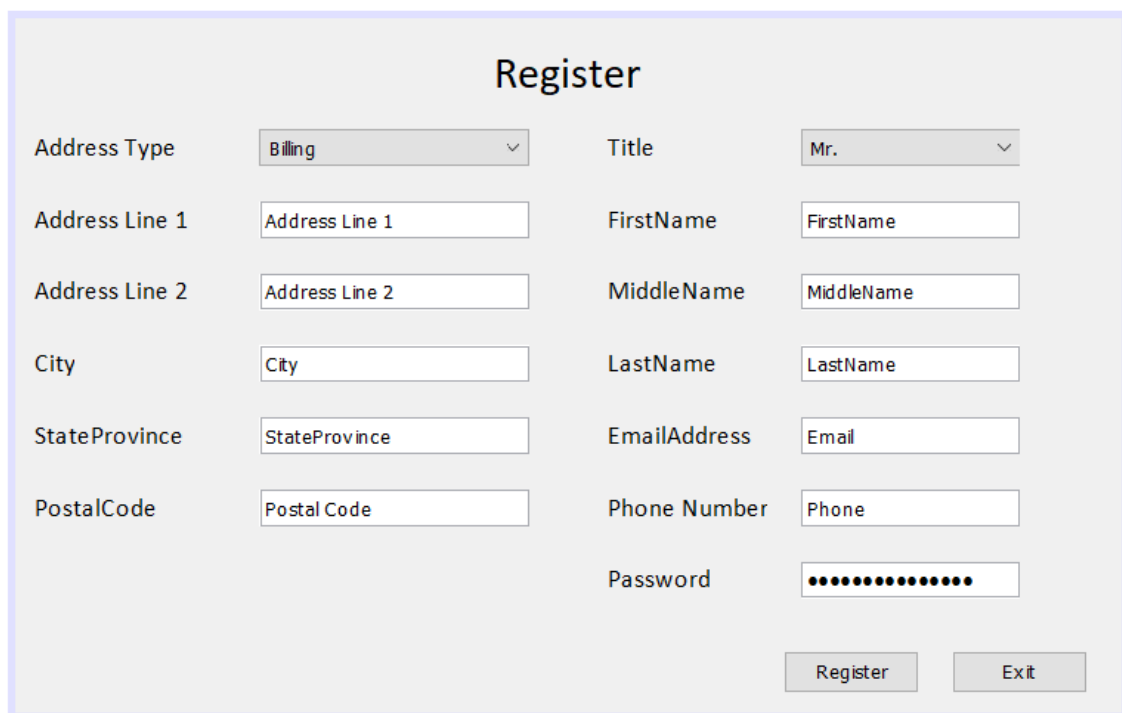
## Mock-up for each interface view

### Main Login Screen



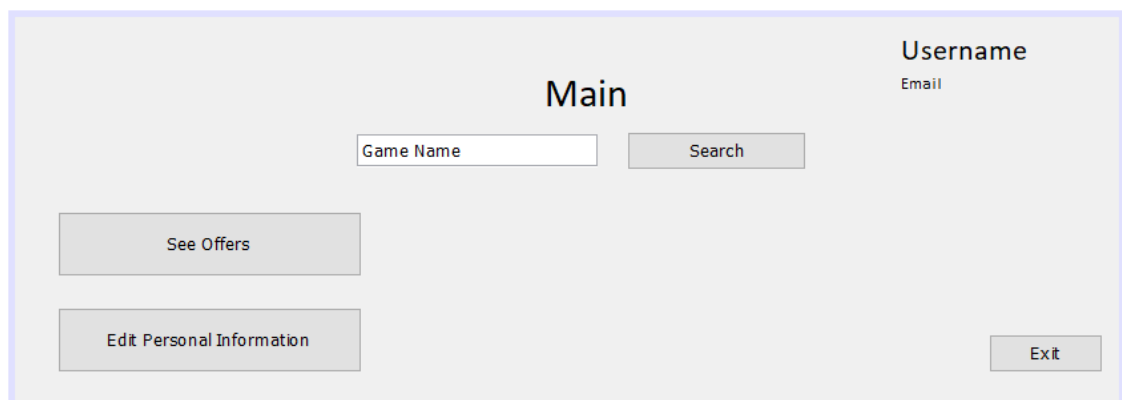
Mock-up of the Main Login Screen. It features a light gray background with a white border. The form includes two input fields: 'Username' with the placeholder text 'User\_name' and 'Password' with masked characters '.....'. Below the input fields are three buttons: 'Register', 'Connect', and 'Exit'.

### Register



Mock-up of the Register screen. The title 'Register' is centered at the top. The form is divided into two columns. The left column contains: 'Address Type' (dropdown menu with 'Billing' selected), 'Address Line 1', 'Address Line 2', 'City', 'StateProvince', and 'PostalCode'. The right column contains: 'Title' (dropdown menu with 'Mr.' selected), 'FirstName', 'MiddleName', 'LastName', 'EmailAddress', 'Phone Number', and 'Password' (masked with '.....'). At the bottom right are two buttons: 'Register' and 'Exit'.

### Main Screen



Mock-up of the Main Screen. The title 'Main' is centered at the top. In the top right corner, the text 'Username' and 'Email' is displayed. Below the title, there is a search bar with the placeholder 'Game Name' and a 'Search' button. On the left side, there are two buttons: 'See Offers' and 'Edit Personal Information'. On the bottom right, there is an 'Exit' button.



## Personal Information

### Personal Information

Address Type	Title
Address Line 1	FirstName
Address Line 2	MiddleName
City	LastName
StateProvince	EmailAddress
PostalCode	Phone Number
	Password

Return

Exit

## Filtered Offers

### Filtered Offers

Username  
Email

Game Name 

Search

Filters

Price

Genre  
☐ Fantasy  
☐ Thriller  
☐ Casual  
☐ Action

Return

Exit

## Show game information

### Game Information

Username  
Email

Game Name 

Search

Name:  
Genre:  
Description:  
Price:  
Storage:  
Platform:  
Saga:  
Launch Date:

Add to Cart

See Game Reviews

Return

Exit

## Reviews

Reviews		Username
Username	/10	Email
Review		
Username	/10	
Review		
Username	/10	
Review		
Add Review	Return	Exit

## Add Review

Add Review		Username
Username		Email
Username	0 /10	
Review		
Add Review	Return	Exit

## Continue Buying/ Pay

Do you want to continue buying or pay?	
Continue Buying	Pay

## Show Payment Information

## Payment Information

Items	Item Price
Total:	

Card Number:

Confirm

Add Payment Card

Exit

## Add Payment Method

## Add Payment Method

Billing Address		Card	
Address Line 1	<input type="text" value="Address Line 1"/>	Card Number	<input type="text" value="Card Number"/>
Address Line 2	<input type="text" value="Address Line 2"/>	Month Exp	<input type="text" value="MM"/>
City	<input type="text" value="City"/>	Year Exp	<input type="text" value="YY"/>
StateProvince	<input type="text" value="StateProvince"/>	CVV	<input type="text" value="CVV"/>
PostalCode	<input type="text" value="Postal Code"/>		

Confirm

Exit

## Bibliography