

Create Database Script

```
USE master
GO

--Creating the Database.

--This next section of code checks to see if the database "dmp_MMORPG" exists, if so, it drops the database.
IF EXISTS(SELECT name FROM master.dbo.sysdatabases
WHERE name='dmp_MMORPG')
DROP DATABASE dmp_MMORPG
GO

--This next section of code creates the database "dmp_MMORPG".
CREATE DATABASE dmp_MMORPG
ON PRIMARY
(
NAME = 'dmp_MMORPG_data',
FILENAME = 'c:\dmp_MMORPG\database\dmp_MMORPG_data.mdf',
SIZE = 5MB,
FILEGROWTH = 10%
)
LOG ON
(
NAME = 'dmp_MMORPG_log',
FILENAME = 'c:\dmp_MMORPG\database\dmp_MMORPG_log.ldf',
SIZE = 5MB,
FILEGROWTH = 10%
)
GO
PRINT 'Database Created...'
GO

--Creating Tables
USE dmp_MMORPG
GO
```

--This next section of code creates the "Error" table in the dmp_MMORPG database.

CREATE TABLE Error

```
(
    errorID INT NOT NULL IDENTITY,
    errorType VARCHAR(20) NOT NULL,
    cause VARCHAR(50) NOT NULL,
    PRIMARY KEY(errorID)
```

)

GO

PRINT 'Error Table Created...'

GO

--This next section of code creates the "Account" table in the dmp_MMORPG database.

CREATE TABLE Account

```
(
    userName VARCHAR(20) NOT NULL,
    uPassword VARCHAR(30) NOT NULL,
    monthlyFee VARCHAR(15) NOT NULL DEFAULT('Not Paid'),
    gameTime VARCHAR(10) NOT NULL DEFAULT('0d'),
    PRIMARY KEY(userName)
```

)

GO

PRINT 'Account Table Created...'

GO

--This next section of code creates the "PlayerChar" table in the dmp_MMORPG database.

CREATE TABLE PlayerChar

```
(
    cName VARCHAR(20) NOT NULL,
    skillLevel INT NOT NULL DEFAULT(1),
    team VARCHAR(20) NOT NULL,
    userName VARCHAR(20) NOT NULL REFERENCES Account(userName),
    PRIMARY KEY(cName)
```

)

GO

PRINT 'PlayerChar Table Created...'

GO

--This next section of code creates the "Item" table in the dmp_MMORPG database.

CREATE TABLE Item

```
(
    itemID VARCHAR(5) NOT NULL,
    itemName VARCHAR(25) NOT NULL,
    itemDesc VARCHAR(40) NOT NULL,
```

```
        PRIMARY KEY(itemID)
    )
GO
PRINT 'Item Table Created...'
GO

--This next section of code creates the "ItemDetails" table in the dmp_MMORPG database.
CREATE TABLE ItemDetails
(
    cName VARCHAR(20) NOT NULL REFERENCES PlayerChar(cName),
    itemID VARCHAR(5) NOT NULL REFERENCES Item(itemID),
    quantity INT NOT NULL,
    PRIMARY KEY(cName,itemID)
)
GO
PRINT 'ItemDetails Table Created...'
GO

USE master
GO
```



Inserting Data Script

```
USE dmp_MMORPG
GO
```

--This next section of code inserts data into the "Account" table, in the dmp_MMORPG database.

```
INSERT INTO Account
VALUES ('coolman55','123coolman','Paid R300','60d'),
('Jessinator','J3sD4nH3a','Paid R150','30d'),
('Fudgebush','b99nm56v99gh9876','Paid R1200','365d'),
('MilkyPaws','KittyMeowMeow','Blocked','0d'),
('AntiBio','092EgloIE','Paid R500','90d'),
('Spyker','R3SPKY449','Blocked','0d'),
('sexybeast666','beast666sexy','Paid R2500','1095d'),
('RainbowUnicorn99','Flow3rs43va','Paid R300','60d'),
('FrankStrom','f23ar34nsw23121255','Paid R300','60d'),
('SanguineMist','t4frm1s7','Credited','60d'),
('Nomad454','d9922fjsR394kJD','Paid R1200','365d')
GO
PRINT 'Inserted data into Account Table...'
GO
```

--This next section of code inserts data into the "Error" table, in the dmp_MMORPG database.

```
INSERT INTO Error
VALUES ('Account','Account not found or does not exist'),
('Account','Password or Username incorrect'),
('Account','Account not active'),
('Game','Invalid Action'),
('Game','You clicked too many times'),
('Game','An instance of this game is already running'),
('Character','A Character with that name does not exist'),
('Character','A Character with that name already exists')
GO
PRINT 'Inserted data into Error Table...'
GO
```

--This next section of code inserts data into the "PlayerChar" table, in the dmp_MMORPG database.

```
INSERT INTO PlayerChar
VALUES ('Mancool',20,'Northern Alliance','coolman55'),
('Jessinator',12,'Western Horde','Jessinator'),
('Fudgebush',45,'Southern Tribe','Fudgebush'),
('Higgleton',90,'Southern Tribe','Fudgebush'),
```

```
('Corbatz',90,'Southern Tribe','Nomad454'),
('Lexoria',87,'Western Horde','Nomad454'),
('Demidon',63,'Southern Tribe','Nomad454'),
('Urdon',55,'Southern Tribe','Nomad454'),
('PawOfMilk',30,'Eastern Trolls','MilkyPaws'),
('Gobliness',25,'Western Horde','AntiBio'),
('AntiBio',72,'Southern Tribe','AntiBio'),
('Poep',44,'Western Horde','AntiBio'),
('Koifish',90,'Eastern Trolls','AntiBio'),
('Wimpie',88,'Northen Alliance','AntiBio'),
('Spyker',27,'Eastern Trolls','Spyker'),
('Killer77',70,'Northern Alliance','sexybeast666'),
('RainbowDash',10,'Southern Tribe','RainbowUnicorn99'),
('Homichi',35,'Eastern Trolls','FrankStrom'),
('Thraxx',90,'Western Horde','FrankStrom'),
('Zuldrak',73,'Eastern Trolls','FrankStrom'),
('VultureRegime',90,'Southern Tribe','FrankStrom'),
('Strom',65,'Eastern Trolls','FrankStrom'),
('Evatrix',90,'Western Horde','SanguineMist'),
('Evaletts',73,'Eastern Trolls','SanguineMist'),
('SanguineMist',90,'Southern Tribe','SanguineMist'),
('Illumine',65,'Eastern Trolls','SanguineMist')
```

GO

PRINT 'Inserted data into PlayerChar Table...'

GO

--This next section of code inserts data into the "Item" table, in the dmp_MMORPG database.

INSERT INTO Item

```
VALUES (075,'Sword of Shock','Does +20 Shock Damage'),
(076,'Dagger of Shock', 'Does +15 Shock Damage'),
(077,'Fire Staff','Allows the user to breathe fire'),
(078,'Shield of Justice','Blocks 20% of all Physical Damage'),
(079,'FrostFire Sword','Deals +30 Fire and Shock Damage'),
(080,'SkullBasher','Has a 20% chance to stun'),
(081,'Bow of Freezing','Slows the target''' + 's movement speed'),
(082,'Mace of Water','Heals the target for 20HP'),
(083,'Staff of Lightening','Deals 20 lightening damage'),
(084,'Ring of Power','Adds 10 power to the user'),
(010,'Health Potion','Restores 100HP'),
(011,'Greater Health Potion','Restores 500 HP'),
(012,'Ultra Health Potion','Restores 2000HP'),
(013,'Mana Potion','Restores 100 Mana'),
(014,'Greater Mana Potion','Restores 500 Mana'),
(015,'Ultra Mana Potion','Restores 2000 Mana'),
```

```
(020,'Potion of Invisibility','The user becomes invisible for 1 hour'),
(045,'Steel Helm','+5 Defence'),
(046,'Steel Gloves','+5 Defence'),
(047,'Steel Leggings','+10 Defence'),
(048,'Steel Breastplate','+15 Defence'),
(049,'Steel Boots','+5 Defence'),
(050,'Leather Helm','+3 Defence'),
(051,'Leather Gloves','+3 Defence'),
(052,'Leather Leggings','+8 Defence'),
(053,'Leather Jacket','+12 Defence'),
(054,'Leather Boots','+3 Defence'),
(055,'Cloth Helm','+2 Defence'),
(056,'Cloth Gloves','+2 Defence'),
(057,'Cloth Leggings','+6 Defence'),
(058,'Cloth Tunic','+10 Defence'),
(059,'Cloth Slippers','+2 Defence')
```

```
GO
```

```
PRINT 'Insert data into the Item Table...'
```

```
GO
```

--This next section of code inserts data into the "itemDetails" table, in the dmp_MMORPG database.

```
INSERT INTO itemDetails
```

```
VALUES ('Mancool',045,1),
```

```
('Mancool',046,2),
```

```
('Mancool',047,1),
```

```
('Mancool',048,1),
```

```
('Mancool',049,1),
```

```
('Mancool',075,2),
```

```
('Mancool',078,1),
```

```
('Jessinator',050,1),
```

```
('Jessinator',051,2),
```

```
('Jessinator',052,1),
```

```
('Jessinator',053,1),
```

```
('Jessinator',054,2),
```

```
('Jessinator',076,1),
```

```
('Fudgebush',050,1),
```

```
('Fudgebush',051,1),
```

```
('Fudgebush',052,1),
```

```
('Fudgebush',053,2),
```

```
('Fudgebush',054,1),
```

```
('Fudgebush',081,1),
```

```
('Higgleton',045,1),
```

```
('Higgleton',046,2),
```

```
('Higgleton',047,1),
```

('Higgleton',048,3),
('Higgleton',049,1),
('Higgleton',080,4),
('Corbatz',050,1),
('Corbatz',051,1),
('Corbatz',052,2),
('Corbatz',053,1),
('Corbatz',054,3),
('Corbatz',083,2),
('Lexoria',055,1),
('Lexoria',056,1),
('Lexoria',057,3),
('Lexoria',058,1),
('Lexoria',059,5),
('Lexoria',077,1),
('Demidon',045,3),
('Demidon',046,1),
('Demidon',047,1),
('Demidon',048,2),
('Demidon',049,1),
('Demidon',075,1),
('Urdon',050,4),
('Urdon',051,1),
('Urdon',052,1),
('Urdon',053,2),
('Urdon',054,1),
('Urdon',076,7),
('PawOfMilk',055,1),
('PawOfMilk',056,2),
('PawOfMilk',057,1),
('PawOfMilk',058,1),
('PawOfMilk',059,3),
('PawOfMilk',083,1),
('Gobliness',045,1),
('Gobliness',046,4),
('Gobliness',047,1),
('Gobliness',048,2),
('Gobliness',049,1),
('Gobliness',084,1),
('AntiBio',011,9),
('AntiBio',015,12),
('AntiBio',057,1),
('AntiBio',058,2),
('AntiBio',082,1),

('AntiBio',084,4),
('Poep',047,1),
('Poep',048,3),
('Poep',049,4),
('Poep',010,6),
('Poep',020,2),
('Poep',013,6),
('Koifish',055,1),
('Koifish',056,1),
('Koifish',057,3),
('Koifish',058,1),
('Koifish',011,8),
('Koifish',015,4),
('Wimpie',081,1),
('Wimpie',084,4),
('Wimpie',079,1),
('Wimpie',012,1),
('Wimpie',015,2),
('Wimpie',020,1),
('Spyker',045,3),
('Spyker',047,1),
('Spyker',048,1),
('Spyker',079,3),
('Spyker',078,1),
('Spyker',049,2),
('Killer77',020,6),
('Killer77',053,1),
('Killer77',054,1),
('Killer77',052,2),
('Killer77',012,8),
('Killer77',014,7),
('RainbowDash',055,1),
('RainbowDash',056,3),
('RainbowDash',057,4),
('RainbowDash',058,1),
('RainbowDash',012,2),
('RainbowDash',015,4),
('Homichi',083,1),
('Homichi',076,3),
('Homichi',012,7),
('Homichi',020,5),
('Thraxx',011,4),
('Thraxx',014,6),
('Zuldrak',020,2),


```
('VultureRegime',049,1),
('VultureRegime',048,2),
('VultureRegime',077,1),
('VultureRegime',059,1),
('VultureRegime',051,1),
('Strom',020,5),
('Strom',015,4),
('Evatrix',012,4),
('Evatrix',052,1),
('Evatrix',053,2),
('Evatrix',050,1),
('Evaletts',046,2),
('Evaletts',047,1),
('Evaletts',048,3),
('Evaletts',049,1),
('Evaletts',012,9),
('Evaletts',020,2),
('SanguineMist',012,12),
('SanguineMist',013,13),
('SanguineMist',055,1),
('SanguineMist',056,1),
('Illumine',056,1),
('Illumine',057,1),
('Illumine',011,6)
GO
PRINT 'Inserted data into ItemDetails Table...'
GO

USE master
GO
```



Creating Views Script

```
USE dmp_MMORPG
GO

--This next section of code checks to see if the "vwBlockedAccounts" view exists, if so, it drops the view.
IF EXISTS(SELECT name FROM dmp_MMORPG.sys.all_views
WHERE name='vwBlockedAccounts')
DROP VIEW vwBlockedAccounts
GO

--This next section of code creates the view "vwBlockedAccounts".
CREATE VIEW vwBlockedAccounts
AS
    SELECT *
    FROM Account
    WHERE monthlyFee = 'Blocked'
GO
PRINT 'View vwBlockedAccounts created...'
GO

--This next section of code checks to see if the "vwTopSkill" view exists, if so, it drops the view.
IF EXISTS(SELECT name FROM dmp_MMORPG.sys.all_views
WHERE name='vwTopSkill')
DROP VIEW vwTopSkill
GO

--This next section of code creates the view "vwTopSkill".
CREATE VIEW vwTopSkill
AS
    SELECT TOP 20 skillLevel,cName, account.userName, uPassword, monthlyFee, gameTime
    FROM PlayerChar
    JOIN Account ON Account.userName = PlayerChar.userName
    ORDER BY skillLevel DESC
GO
PRINT 'View vwTopSkill created...'
GO

--This next section of code checks to see if the "vwTopStackedItems" view exists, if so, it drops the view.
IF EXISTS(SELECT name FROM dmp_MMORPG.sys.all_views
```

```
WHERE name='vwTopStackedItems')
DROP VIEW vwTopStackedItems
GO

--This next section of code creates the view "vwTopStackedItems".
CREATE VIEW vwTopStackedItems
AS
    SELECT TOP 20 itemdetails.itemID, item.itemName, itemDesc, ItemDetails.cName, quantity
    FROM ItemDetails
    JOIN Item ON Item.itemID = ItemDetails.itemID
    GROUP BY item.itemName,itemdetails.itemID, Item.itemDesc, itemdetails.cName, quantity
    ORDER BY quantity DESC
GO
PRINT 'View vwTopStackedItems created...'
GO

--This next section of code checks to see if the "vwPoplItems" view exists, if so, it drops the view.
IF EXISTS(SELECT name FROM dmp_MMORPG.sys.all_views
WHERE name='vwPoplItems')
DROP VIEW vwPoplItems
GO

--This next section of code creates the view "vwPoplItems".
CREATE VIEW vwPoplItems
AS
    SELECT TOP 5 itemdetails.Itemid, item.itemName, COUNT(itemdetails.itemid) AS qtyOfItem
    FROM itemdetails
    JOIN Item ON Item.itemID = ItemDetails.itemID
    GROUP BY itemdetails.itemID,item.itemName
    ORDER by qtyOfItem DESC
GO
PRINT 'View vwPoplItems created...'
GO

USE master
GO
```



Creating Procedures Script

```
USE dmp_MMORPG
GO

--This next section of code checks to see if the "spRegister" stored procedure exists, if so, it drops the procedure.
IF EXISTS(SELECT name FROM dmp_MMORPG.sys.procedures
WHERE name='spRegister')
DROP PROCEDURE spRegister
GO

--This next section of code creates the procedure "spRegister".
CREATE PROCEDURE spRegister
@uName VARCHAR(20),
@uPass VARCHAR(30),
@mFee VARCHAR(15),
@gTime VARCHAR(10)
AS
IF EXISTS (SELECT * FROM Account WHERE account.userName = @uName)
    PRINT 'Username already exists'
ELSE
    BEGIN
        INSERT INTO Account
        VALUES (@uName,@uPass,@mFee,@gTime)
        PRINT 'New Account Registered'
    END
GO
PRINT 'Procedure spRegister created...'
GO

--This next section of code checks to see if the "spAddTime" stored procedure exists, if so, it drops the procedure.
IF EXISTS(SELECT name FROM dmp_MMORPG.sys.procedures
WHERE name='spAddTime')
DROP PROCEDURE spAddTime
GO

--This next section of code creates the procedure "spAddTime".
CREATE PROCEDURE spAddTime
@uName VARCHAR(20),
@gTime INT
```

```

AS
IF @uName IN(SELECT userName FROM Account)
BEGIN
    UPDATE Account SET gameTime = CAST(CAST(SUBSTRING(gameTime,1,LEN(gameTime)-1) AS INT) + @gTime AS VARCHAR) +
'd'
    WHERE userName = @uName
END
ELSE
    RAISERROR('Account does not exist.',16,10)
GO
PRINT 'Procedure spAddTime created...'

```

--This next section of code checks to see if the "spAddItem" stored procedure exists, if so, it drops the procedure.

```

IF EXISTS(SELECT name FROM dmp_MMORPG.sys.procedures
WHERE name='spAddItem')
DROP PROCEDURE spAddItem
GO

```

--This next section of code creates the procedure "spAddItem".

```

CREATE PROCEDURE spAddItem
@cName VARCHAR(20),
@itemID VARCHAR(5),
@quantity INT
AS
IF @cName IN(SELECT cName FROM PlayerChar)
BEGIN
    IF @itemID IN(SELECT itemID FROM item)
    BEGIN
        IF EXISTS (SELECT * FROM ItemDetails WHERE cName = @cName AND itemID = @itemID)
        BEGIN
            UPDATE ItemDetails SET quantity = @quantity+quantity WHERE cName = @cName AND itemID = @itemID
            PRINT 'Successfully updated quantity'
        END
    ELSE
        BEGIN
            IF (SELECT COUNT(*) FROM ItemDetails WHERE cName = @cName) < 8
            BEGIN
                INSERT INTO ItemDetails VALUES(@cName, @itemID, @quantity)
                PRINT 'Item added successfully to ' + @cName + "'s inventory.'"
            END
        ELSE
            BEGIN
                RAISERROR('The inventory is full.',16,10)
            END
        END
    END

```

```

        END
    END
END
ELSE
    RAISERROR('The itemid entered is invalid.',16,10)
END
ELSE
    BEGIN
        RAISERROR('The character name entered is invalid.',16,10)
    END
GO
PRINT 'Procedure spAddItem created...'
GO

```

--This next section of code checks to see if the "spAddChar" stored procedure exists, if so, it drops the procedure.

```

IF EXISTS(SELECT name FROM dmp_MMORPG.sys.procedures
WHERE name='spAddChar')
DROP PROCEDURE spAddChar
GO

```

--This next section of code creates the procedure "spAddChar".

```

CREATE PROCEDURE spAddChar
@cName VARCHAR(20),
@team VARCHAR(20),
@uName VARCHAR(20)
AS
IF @uName IN(SELECT userName FROM PlayerChar)
BEGIN
    IF EXISTS (SELECT * FROM PlayerChar WHERE PlayerChar.cName = @cName)
        RAISERROR('Character already exists',16,10)
    ELSE
        BEGIN
            INSERT INTO PlayerChar (cName,team,userName)
            VALUES (@cName,@team,@uName)
            PRINT 'New Character created'
        END
    END
ELSE
    RAISERROR('The account in which you are trying to add a character, does not exist.',16,10)
GO
PRINT 'Procedure spAddChar created...'
GO

```

--This next section of code checks to see if the "spSendLetter" stored procedure exists, if so, it drops the procedure.

```
--This next section of code creates the procedure "spSendLetter".
```

[illegible]

```
PRINT '|                                     classes: Thief, Mage and  
|  
PRINT '|                                     Warrior.  
|  
PRINT '|-----'  
PRINT '|GAMEPLAY NEWS!  
|  
PRINT '|      * We have increased the level cap from 90 to 95.  
|  
PRINT '|      * Added 5 new leveling zones: 2 level 90 - 92 Zones, 2 level 92 - 94 Zones |  
PRINT '|                                     and 1 level 94 - 95 Zone.  
|  
PRINT '|      * Changed the way gear worked to incorporate PVP during leveling, so that |  
PRINT '|      people who may be "'+ganked'"+' will now have more of an advantage and  
,  
PRINT '|      gear will change and have base PVP resilience.  
,  
PRINT '|-----'  
PRINT '|OTHER NEWS!  
|  
PRINT '|If you had created your account and bought into the alpha version of the game |  
PRINT '|you will receive bonus vanity items and companions, like the Molten Song Bird |  
PRINT '|or the Treant of Harmony.  
|  
PRINT '|-----'  
PRINT '>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>><<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<'<br>PRINT '|-----'</pre>
</div>
<div class="Text" data-bbox="167 80 833 920" data-label="Text">
<pre>END
ELSE
BEGIN
PRINT '|-----'
PRINT '>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>><<<<<<<<<<<<<<<<<<<<<<<<<<<<<'<br>PRINT '|-----'
PRINT '|Greetings ' + @uName + ',
|
PRINT '|Your account has ' + @gametime + ' of gametime left.
|
PRINT '|-----'
PRINT '>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>><<<<<<<<<<<<<<<<<<<<<<<<<<<<<'<br>PRINT '|-----'
END
END
ELSE</pre>
</div>
```



```
RAISERROR('Account does not exist',16,10)
END
GO
PRINT 'Procedure spSendLetter created...'
GO
```

```
USE master
GO
```



Creating Triggers Script

```
USE dmp_MMORPG
GO

--This next section of code checks to see if the "trInsertDisabled" trigger exists, if so, it drops the trigger.
IF EXISTS(SELECT name FROM dmp_MMORPG.sys.triggers
WHERE name='trInsertDisabled')
DROP TRIGGER trInsertDisabled
GO

--This next section of code creates the trigger "trInsertDisabled".
CREATE TRIGGER trInsertDisabled
ON Item
INSTEAD OF INSERT
AS
PRINT 'NO, Inserting has been disabled on table ITEM'
GO
PRINT 'Trigger trInsertDisabled created...'

--This next section of code checks to see if the "trInsertNotify" trigger exists, if so, it drops the trigger.
IF EXISTS(SELECT name FROM dmp_MMORPG.sys.triggers
WHERE name='trInsertNotify')
DROP TRIGGER trInsertNotify
GO

--This next section of code creates the trigger "trInsertNotify".
CREATE TRIGGER trInsertNotify
ON ItemDetails
AFTER INSERT, UPDATE
AS
PRINT 'Changes made were successful'
GO
PRINT 'Trigger trInsertNotify created...'

USE master
GO
```

Creating Indices Script

```
USE dmp_MMORPG
```

```
GO
```

```
--This next section of code checks to see if the "idx_Item" index exists, if so, it drops the index.
```

```
IF EXISTS(SELECT name FROM dmp_MMORPG.sys.indexes
```

```
WHERE name='idx_Item')
```

```
DROP INDEX idx_Item ON Item
```

```
GO
```

```
--This next section of code checks creates the index "idx_Item".
```

```
CREATE INDEX idx_Item
```

```
ON Item(itemID)
```

```
GO
```

```
PRINT 'Index idx_Item created...'
```

```
GO
```

```
--This next section of code checks to see if the "idx_Account" index exists, if so, it drops the index.
```

```
IF EXISTS(SELECT name FROM dmp_MMORPG.sys.indexes
```

```
WHERE name='idx_Account')
```

```
DROP INDEX idx_Account ON Account
```

```
GO
```

```
--This next section of code checks creates the index "idx_Account".
```

```
CREATE INDEX idx_Account
```

```
ON Account(userName)
```

```
GO
```

```
PRINT 'Index idx_Account created...'
```

```
GO
```

```
USE master
```

```
GO
```



Drop Database Script

```
USE master
```

```
GO
```

```
--This next section of code drops the dmp_MMORPG database.
```

```
DROP DATABASE dmp_MMORPG
```

```
GO
```



Documentation

Author: Donovan van Heerden

Student No: EL2014-0043

Date: 13/05/2014

Instructor: Jason Smith

Campus: CTI East London

This project is designed to create and manage a database for a Massive Multiplayer Online Role Playing Game (MMORPG). It is meant to store data on all users' accounts, their characters they have created and whom they play, as well as the various items in the game and errors which may occur during the game.

There are a total of 7 scripts. These scripts are used to create the database, to delete the database, insert data into the database, to create the various views required, the procedures for various input entries, indexes and triggers.

There are a total of 4 views that are created in the script file. Namely "vwBlockedAccounts", "vwTopSkill", "vwTopStackedItems" and "vwPoplItems".

To use the various views, simply select all data from the view.

Displayed by vwBlockedAccounts – All the accounts that are currently blocked, which displays the account information of those blocked accounts.

Displayed by vwTopSkill – A view of the top 20 characters with the highest skill level, which displays the character's name and which account the character belongs to.

Displayed by vwTopStackedItems – A view of 20 items that are stacked the most, which displays the item information as well as the character's name, to indicate which item that specific character has.

Displayed by vwPoplItems – Shows the 5 most popular items obtained between all characters, which displays the item information as well as the amount of players who have that item.

There are a total of 5 procedures that are created in the script file. Namely "spRegister", "spAddTime", "spAddItem", "spAddChar" and "spSendLetter".