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Module: MySQL Project 3

Author: Toby Swart, Student Number: 9LBMZTF42

Police Database

The purpose of the database is keeping a record of police stations, officials who work at the stations, suspects and their offences.

The Database contains 4 tables. One for each entity; Station, Official, Suspect, Offence.

The suspect table is indexed so that it can be searched, in case the police need to look up someone.

The suspect and offence tables also have a trigger built which is to backup the table, this is for extra security so that suspect and offence details are not lost.

This script has 3 built in view and 3 stored procedures:

* vw\_SuspectDetails
* vw\_PoliceStations
* vw\_OfficialDetails

and

* sp\_PrintCover
* sp\_AddOffence
* sp\_AddSuspect

View vw\_SuspectDetails shows all arrests made after 2007-11-25.

Code:

CREATE OR REPLACE VIEW vw\_SuspectDetails

AS

SELECT suspect.suspect\_name AS 'Suspect Name',

suspect.suspect\_surname AS 'Suspect Surame',

offence.offence\_action\_taken AS 'Arest',

offence.offence\_date AS 'Date'

FROM suspect

INNER JOIN offence ON suspect.suspect\_id = offence.suspect\_id

WHERE offence.offence\_date >= '2007-11-25'

HAVING offence.offence\_action\_taken = 'Arrest'

ORDER BY offence.offence\_action\_taken;

SELECT \* FROM vw\_SuspectDetails;

View vw\_PoliceStations shows the various police stations stored in the Database.

Code:

CREATE OR REPLACE VIEW vw\_PoliceStations

AS

SELECT station.stat\_name AS 'Station Name'

FROM station;

SELECT \* FROM vw\_PoliceStations;

View vw\_OfficialDetails shows all the police officials and their details including the police station thy belong to.

Code:

CREATE OR REPLACE VIEW vw\_OfficialDetails

AS

SELECT official.official\_name AS 'Official Name',

official.official\_surname AS 'Official Surame',

official.official\_contact\_info AS 'Official Contact Info',

official.official\_callsign AS 'Official Callsign',

official.official\_rank AS 'Official Rank',

station.stat\_name AS 'Station'

FROM official

INNER JOIN station ON official.stat\_id = station.stat\_id

ORDER BY official.official\_name;

SELECT \* FROM vw\_OfficialDetails;

Stored Procedure sp\_AddSuspect creates a new suspect in the database, and check for a duplicate before it creates the suspect.

Code:

DROP PROCEDURE IF EXISTS police.sp\_AddSuspect $$

CREATE PROCEDURE police.sp\_AddSuspect ()

BEGIN

DECLARE exit\_flag INT DEFAULT 0;

DECLARE suspect\_name VARCHAR(50);

DECLARE suspect\_surname VARCHAR(50);

DECLARE suspect\_address\_line\_1 VARCHAR(50);

DECLARE suspect\_address\_line\_2 VARCHAR(50);

IF flag\_exist = 0 THEN

SET suspect\_name = 'John';

SET suspect\_surname = 'Doe';

SET suspect\_address\_line\_1 = 'Cape Town';

SET suspect\_address\_line\_2 = '2536 Green Road Hotel';

END IF;

END $$

Stored Procedure sp\_AddOffence shows creates a new offence in the database, and it includes a description for the offence.

Code:

DROP PROCEDURE IF EXISTS police.sp\_AddOffence $$

CREATE PROCEDURE police.sp\_AddOffence ()

BEGIN

DECLARE offence\_name VARCHAR(50);

DECLARE offence\_date VARCHAR(50);

DECLARE offence\_time VARCHAR(50);

DECLARE offence\_action\_taken VARCHAR(50);

SET offence\_name = 'High Treason';

SET offence\_date = '2002-11-25';

SET offence\_time = '13:35:45';

SET offence\_action\_taken = 'Death Penalty';

END $$

Stored Procedure sp\_PrintCover shows creates suspect.txt file with containing the suspects details. The file is created to the C:\xampp\tmp directory.

Code:

DROP PROCEDURE IF EXISTS sp\_PrintCover $$

CREATE PROCEDURE sp\_PrintCover()

BEGIN

DROP TEMPORARY TABLE IF EXISTS tmp\_PrintCover;

CREATE TEMPORARY TABLE tmp\_PrintCover

SELECT suspect\_name, suspect\_surname, suspect\_address\_line\_1, suspect\_address\_line\_2, suspect\_contact\_info, stat\_id

FROM suspect

ORDER BY suspect\_name DESC;

SELECT \*

INTO OUTFILE '/tmp/suspect.txt'

FIELDS TERMINATED BY ',' OPTIONALLY ENCLOSED BY '"'

LINES TERMINATED BY '\n'

FROM tmp\_PrintCover;

SELECT \* FROM tmp\_PrintCover;

END$$

Instructions to use the Police database.

1. Run the create\_project\_3.sql file in MySQL Workbench.

2. If there are any errors, See Error Handling.

3. Delete the database by running the delete\_db.sql file in MySQL Workbench.

In the project folder is also a screen shot of the ERD. (Capture.PNG) It shows the 4 Tables and their relationships.

And in the same folder is a backup of the whole database zipped in a zip file.

Error Handling

error 1064: There is an error in the MySQL syntax.

error 1066: There is a Not unique table or alias present.

Warning 1305: The procedure does not exist yet.