

--Part 1.2: Design Tables

--DROP TABLE Performance; DROP TABLE Stage; DROP TABLE Musician; DROP TABLE Member;
DROP TABLE Band; DROP TABLE Agent;

```
CREATE TABLE Agent(  
    AgentID VARCHAR2(5) PRIMARY KEY,  
    Name VARCHAR2(50),  
    Phone VARCHAR2(13),  
    Address VARCHAR2(100),  
    City VARCHAR(30)  
);
```

```
CREATE TABLE Band(  
    BandID VARCHAR2(5) PRIMARY KEY,  
    Name VARCHAR2(50),  
    Description VARCHAR2(255),  
    AgentID VARCHAR2(5),  
    FOREIGN KEY (AgentID) REFERENCES Agent(AgentID) ON DELETE CASCADE  
);
```

```
CREATE TABLE Musician(  
    MusicianID VARCHAR2(5) PRIMARY KEY,  
    Name VARCHAR2(50),  
    NickName VARCHAR2(30),  
    DOB DATE,  
    Genre VARCHAR2(30),  
    BandID VARCHAR2(5),  
    FOREIGN KEY (BandID) REFERENCES Band(BandID) ON DELETE CASCADE  
);
```

```
CREATE TABLE Member(  
    MemberID VARCHAR2(6) PRIMARY KEY,  
    Name VARCHAR2(50),  
    DOB DATE,  
    Gender CHAR(1),  
    Phone VARCHAR2(12),  
    JobType VARCHAR2(30),  
    BandID VARCHAR2(5),  
    FOREIGN KEY (BandID) REFERENCES Band(BandID) ON DELETE CASCADE  
);
```

```
CREATE TABLE Stage(  
    StageNo VARCHAR(10) PRIMARY KEY,  
    Name VARCHAR2(50),  
    Capacity INTEGER  
);
```

```
CREATE TABLE Performance(  
    PerformanceID INTEGER PRIMARY KEY,  
    StageNo VARCHAR2(10),  
    BandID VARCHAR(5),  
    StartTime TIMESTAMP(6),  
    MaxTime TIMESTAMP(6),  
    FOREIGN KEY (StageNo) REFERENCES Stage(StageNo) ON DELETE CASCADE,  
    FOREIGN KEY (BandID) REFERENCES Band(BandID) ON DELETE CASCADE  
);
```

--Part 1.3: Data Insertion

```
INSERT INTO Agent VALUES('AG001', 'James Smith', '078-4293-2257', '89 Manor  
Way', 'Great Linford');
```

```
INSERT INTO Agent VALUES('AG002', 'Julie McEwen', '079-1249-8524', '49 Trehafod Road', 'Buck''s Mills');
```

```
INSERT INTO Band VALUES('BN001', 'The Killers', 'recognised as one of the biggest rock acts in the world', 'AG001');
INSERT INTO Band VALUES('BN002', 'The Eagles', 'Factory Records changed the face of British music and Joy Division were a huge part of its success', 'AG002');
INSERT INTO Band VALUES('BN003', 'Foo Fighters', 'The mod revival the band helped to spark a whole subculture just shows how influential', 'AG002');
INSERT INTO Band VALUES('BN004', 'Red Hot Chili Peppers', 'Get It On, Metal Guru and Children Of The Revolution', 'AG001');
INSERT INTO Band VALUES('BN005', 'Guns N Roses', 'The group released era-defining classics like Paranoid, War Pigs and Iron Man, and influenced the outlook of British rock music', 'AG002');
```

```
INSERT INTO Musician VALUES ('MU101', 'Richard Molavi', NULL, '2-Jun-92', 'Hip Hop', 'BN001');
INSERT INTO Musician VALUES ('MU102', 'Megan Williams', NULL, '13-Mar-93', 'Rock', 'BN002');
INSERT INTO Musician VALUES ('MU103', 'William Clifford', NULL, '12-May-96', 'Hip Hop', 'BN003');
INSERT INTO Musician VALUES ('MU104', 'Robert Meadows', 'Yardbird', '26-Aug-98', 'Rock', 'BN004');
INSERT INTO Musician VALUES ('MU105', 'James Marsh', NULL, '16-Apr-99', 'Club', 'BN005');
INSERT INTO Musician VALUES ('MU106', 'James Miles', NULL, '16-May-90', 'Pop', 'BN001');
INSERT INTO Musician VALUES ('MU107', 'Joseph Sanders', NULL, '12-Aug-97', 'Beat', 'BN002');
INSERT INTO Musician VALUES ('MU108', 'Julie Whittaker', 'The Queen of Soul', '10-Nov-86', 'Hip Hop', 'BN003');
INSERT INTO Musician VALUES ('MU109', 'Adrian Davis', NULL, '19-Jan-90', 'Beat', 'BN004');
INSERT INTO Musician VALUES ('MU110', 'Linda Yorke', NULL, '19-Feb-86', 'Club', 'BN005');
INSERT INTO Musician VALUES ('MU111', 'Fiona Kelso', NULL, '3-Jul-97', 'Pop', 'BN001');
INSERT INTO Musician VALUES ('MU112', 'Adrian Marsh', NULL, '1-Mar-88', 'Rock', 'BN002');
INSERT INTO Musician VALUES ('MU113', 'Martyn Holmes', NULL, '25-Apr-98', 'Hip Hop', 'BN003');
INSERT INTO Musician VALUES ('MU114', 'Marie-Lisa Johannsson', 'The Fab Four', '19-Mar-97', 'Beat', 'BN004');
INSERT INTO Musician VALUES ('MU115', 'Nelson Hadlow', NULL, '21-May-91', 'Hip Hop', 'BN005');
INSERT INTO Musician VALUES ('MU116', 'John Lugini', 'The Man in Black', '4-May-96', 'Pop', 'BN001');
INSERT INTO Musician VALUES ('MU117', 'Ramirez Damatos', NULL, '28-Sep-98', 'Rock', 'BN002');
INSERT INTO Musician VALUES ('MU118', 'Kelly Wight', NULL, '2-Feb-99', 'Beat', 'BN003');
INSERT INTO Musician VALUES ('MU119', 'George Diamond', 'The Lizard King', '15-Nov-97', 'Beat', 'BN004');
INSERT INTO Musician VALUES ('MU120', 'Joanna Neilson', NULL, '24-Mar-98', 'Club', 'BN005');
```

```
INSERT INTO Member VALUES('ME001', 'Jennifer Wilmott', '15-Dec-97', 'F', '797-577-7666', 'Drummer', 'BN001');
INSERT INTO Member VALUES('ME002', 'Roberto Mace', '6-Feb-96', 'M', '797-577-7667', 'Lightman', 'BN002');
INSERT INTO Member VALUES('ME003', 'Wayne Hartmore', '16-Mar-98', 'M', '797-577-7668', 'Security', 'BN003');
```

```

INSERT INTO Member VALUES('ME004','Graeme Davis','14-Sep-96','M','797-577-7669','Beat Boxer','BN004');
INSERT INTO Member VALUES('ME005','Patrick Connor','8-Nov-97','F','797-577-7670','Electrician','BN001');
INSERT INTO Member VALUES('ME006','Peter Court','4-Jan-89','M','797-577-7671','Drummer','BN002');
INSERT INTO Member VALUES('ME007','Natalie French','19-Feb-97','F','797-577-7672','Lightman','BN003');
INSERT INTO Member VALUES('ME008','Josephine Trotter','19-Oct-95','F','797-577-7673','Security','BN004');
INSERT INTO Member VALUES('ME009','Trevor Mills','1-Jan-86','M','797-577-7674','Beat Boxer','BN005');
INSERT INTO Member VALUES('ME010','Joanna Repetto','30-Sep-90','M','797-577-7675','Electrician','BN001');
INSERT INTO Member VALUES('ME011','Michelle Caprice','16-Apr-97','M','797-577-7676','Lightman','BN003');
INSERT INTO Member VALUES('ME012','Jackie Matthews','5-Aug-97','M','797-577-7677','Security','BN005');

```

```

INSERT INTO Stage VALUES('Stage1','John Peel Stage',300);
INSERT INTO Stage VALUES('Stage2','Marlin Stage',600);
INSERT INTO Stage VALUES('Stage3','Great Britain Stage',1200);
INSERT INTO Stage VALUES('Stage4','Youth Club Stage',500);

```

```

INSERT INTO Performance
VALUES(1,'Stage1','BN001',To_date('12:00','HH24:MI'),To_date('14:00','HH24:MI'));
INSERT INTO Performance
VALUES(2,'Stage1','BN002',To_date('15:00','HH24:MI'),To_date('17:00','HH24:MI'));
INSERT INTO Performance
VALUES(3,'Stage1','BN003',To_date('18:00','HH24:MI'),To_date('20:00','HH24:MI'));
INSERT INTO Performance
VALUES(4,'Stage1','BN004',To_date('21:00','HH24:MI'),To_date('23:00','HH24:MI'));
INSERT INTO Performance
VALUES(5,'Stage2','BN005',To_date('15:00','HH24:MI'),To_date('17:00','HH24:MI'));
INSERT INTO Performance
VALUES(6,'Stage2','BN002',To_date('18:00','HH24:MI'),To_date('20:00','HH24:MI'));
INSERT INTO Performance
VALUES(7,'Stage2','BN003',To_date('21:00','HH24:MI'),To_date('23:00','HH24:MI'));
INSERT INTO Performance
VALUES(8,'Stage3','BN001',To_date('18:00','HH24:MI'),To_date('20:00','HH24:MI'));
INSERT INTO Performance
VALUES(9,'Stage3','BN002',To_date('21:00','HH24:MI'),To_date('23:00','HH24:MI'));

```

--Part 1.4: View Design

```

CREATE VIEW AgentJobs
AS
SELECT A.AgentID, COUNT(DISTINCT JobType) AS "DifferentJobs"
FROM Agent A JOIN Band B ON A.AgentID = B.AgentID
      JOIN Member M ON B.BandID = M.BandID
GROUP BY A.AgentID
WITH READ ONLY;

```

GRANT SELECT ON AgentJobs TO dp15aad;

--Part 1.5: SQL Trigger

```

--DROP TABLE tblCountDelete
CREATE TABLE tblCountDelete(countDelete INTEGER);

```

CREATE OR REPLACE TRIGGER TRG_Agent

```

    BEFORE DELETE
    ON Agent
DECLARE Found INTEGER;
BEGIN
    SELECT COUNT(*) INTO Found FROM TblCountDelete;
    IF Found <= 0 THEN
        INSERT INTO TblCountDelete VALUES(1);
    ELSE
        UPDATE tblCountDelete
        SET countDelete = countDelete + 1;
    END IF;
END;

--Testing of Trigger
INSERT INTO AGENT(AgentID) VALUES('AG000');
INSERT INTO AGENT(AgentID) VALUES('AG999');

SELECT * FROM tblCountDelete;
DELETE FROM AGENT WHERE AgentID = 'AG000';
DELETE FROM AGENT WHERE AgentID = 'AG999';
SELECT * FROM tblCountDelete;

```