Callum Simpson

19010230 cldv6211 Poe task 2

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| Screenshot showing creation of database in SQL Server Management Studio |
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| CREATE DATABASE CLOUDTASK2 |

Table Creation

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| Employee table creation |
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| CREATE TABLE EMPLOYEE(  EMP\_ID VARCHAR(10) PRIMARY KEY NOT NULL,  EMP\_FIRST\_NAME VARCHAR(255) NOT NULL,  EMP\_SURNAME VARCHAR(255) NOT NULL,  EMP\_EMAIL VARCHAR(255) NOT NULL,  EMP\_CELLNO VARCHAR(13) NOT NULL  )  SELECT \* FROM EMPLOYEE; |

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| Customer table creation |
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| CREATE TABLE CUSTOMER(  CUSTOMER\_ID VARCHAR(10) PRIMARY KEY NOT NULL,  CUSTOMER\_FISRT\_NAME VARCHAR(255) NOT NULL,  CUSTOMER\_LAST\_NAME VARCHAR(255) NOT NULL,  CUSTOMER\_STREET\_ADDRESS VARCHAR(255) NOT NULL,  CUSTOMER\_CITY VARCHAR(255) NOT NULL,  CUSTOMER\_POSTAL\_CODE VARCHAR(20) NOT NULL,  CUSTOMER\_EMAIL VARCHAR(255)NOT NULL  )  SELECT \* FROM CUSTOMER; |

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| Job\_Details Table Creation |
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| CREATE TABLE JOB\_DETAILS(  JOB\_TYPE\_ID VARCHAR(5) PRIMARY KEY NOT NULL,  JOB\_TYPE\_NAME VARCHAR(255) NOT NULL,  DAILY\_RATE MONEY  )  SELECT \* FROM JOB\_DETAILS; |

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| Job Table Creation |
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| CREATE TABLE JOB(  JOB\_CARD\_NO INT PRIMARY KEY NOT NULL,  CUSTOMER\_ID VARCHAR(10) FOREIGN KEY REFERENCES CUSTOMER(CUSTOMER\_ID) NOT NULL,  JOB\_TYPE\_ID VARCHAR(5) FOREIGN KEY REFERENCES JOB\_DETAILS(JOB\_TYPE\_ID) NOT NULL,  START\_DATE DATE NOT NULL,  END\_DATE DATE,  NUM\_OF\_DAYS SMALLINT  )  SELECT \* FROM JOB; |

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| Employee\_Job Table Creation |
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| CREATE TABLE EMPLOYEE\_JOB(  EMP\_JOB\_ID VARCHAR(255) PRIMARY KEY NOT NULL,  JOB\_CARD\_NO INT FOREIGN KEY REFERENCES JOB(JOB\_CARD\_NO) NOT NULL,  EMP\_ID VARCHAR(10) FOREIGN KEY REFERENCES EMPLOYEE(EMP\_ID)NOT NULL  )  SELECT \* FROM EMPLOYEE\_JOB; |

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| Materials Table Creation |
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| CREATE TABLE MATERIALS(  MATERIAL\_ID VARCHAR(10) PRIMARY KEY NOT NULL,  MATERIAL\_NAME VARCHAR(255) NOT NULL  )  SELECT \* FROM MATERIALS; |

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| Materials\_Job Table Creation |
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| CREATE TABLE MATERIALS\_JOB(  MATERIAL\_ID VARCHAR(10) FOREIGN KEY REFERENCES MATERIALS(MATERIAL\_ID),  JOB\_CARD\_NO INT FOREIGN KEY REFERENCES JOB(JOB\_CARD\_NO),  QUANTITY INT  PRIMARY KEY(MATERIAL\_ID,JOB\_CARD\_NO)  )  SELECT \* FROM MATERIALS\_JOB; |

Table Inserts

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| Employee Table Inserts |
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| INSERT INTO EMPLOYEE  VALUES('EMP100', 'ALBERT','MALOSE','AMALOSE@DOMINIGOROOFWORKS.CO.ZA', 0713118345)  INSERT INTO EMPLOYEE  VALUES('EMP920', 'CHRIS','BYNE','CBYNE@DOMINIGOROOFWORKS.CO.ZA',0723536635)  INSERT INTO EMPLOYEE  VALUES('EMP010', 'JOHN','HENDRIKS','JHENDRIKS@DOMINIGOROOFWORKS.CO.ZA', 0813244352)  INSERT INTO EMPLOYEE  VALUES('EMP771', 'SMALLBOY','MODIPA','SMODIPA@DOMINIGOROOFWORKS.CO.ZA', 0723569780)  INSERT INTO EMPLOYEE  VALUES('EMP681', 'STANLEY','JACOBS','SJACOBS@DOMINIGOROOFWORKS.CO.ZA', 082345678)  SELECT \* FROM EMPLOYEE; |

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| Customer Table Inserts |
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| INSERT INTO CUSTOMER  VALUES('CUST100','JACOB','SMITH','A201 OCERTON 269 DEBOUVLRDE STR', 'PRETORIA','0002', 'JSMITH@GMAIL.COM')  INSERT INTO CUSTOMER  VALUES('CUST101','THATO','MOLEPO','11 LUTTIG COURT 289 MALTZAN STR', 'PRETORIA','0001','TMOLEPO@GMAIL.COM')  INSERT INTO CUSTOMER  VALUES('CUST102','DAKALO','MUDAU','1182 CEBINIA STR', 'PRETORIA','0082', 'MUDAUD@HOTMAIL.CO.ZA')  INSERT INTO CUSTOMER  VALUES('CUST103','SFISO','MYENI','503 HAMILTON GARDENS 337 VISAGIE STR', 'PRETORIA','0001', 'SFISOMYENI@GMAIL.COM')  INSERT INTO CUSTOMER  VALUES('CUST104','RICARDO','KEYL','10 SILVILLE 614 JASMYN STR', 'PRETORIA','0184', 'RKEYL@HOTMAIL.CO.ZA')  INSERT INTO CUSTOMER  VALUES('CUST105','SMALLBOY','MTSHALI','307 FEORA EAST', 'PRETORIA-WEST','0183', 'SMALLBOYM@HOTMAIL.COM')  INSERT INTO CUSTOMER  VALUES('CUST106','WILSON','JANSEN','701 MOTICCHIO FLAT 251 JACOB MARE STR', 'PRETORIA','0002', 'JANSENW@GMAIL.COM')  INSERT INTO CUSTOMER  VALUES('CUST107','TENDAI','NDORO','3 LEOS PLACE 457 CHURCH STR', 'PRETORIA','0002', 'NDOROT@HOTMAIL.COM')  INSERT INTO CUSTOMER  VALUES('CUST108','DONALD','PUTTINGH','408 OUBOS 368 PRINSLOO STREET', 'PRETORIA','0001', 'DONALDP@GMAIL.COM')  INSERT INTO CUSTOMER  VALUES('CUST109','TRACY','SAMSON','206 ALBERTROS 269 STEAD AVENUE', 'PRETORIA','0186', 'SAMSONT@HOTMAIL.COM')  SELECT \* FROM CUSTOMER |

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| Job\_Details Table Inserts |
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| INSERT INTO JOB\_DETAILS  VALUES('J100','FULL CONVERSION', 1200)  INSERT INTO JOB\_DETAILS  VALUES('J101','SEMI CONVERSION', 1080)  INSERT INTO JOB\_DETAILS  VALUES('J102','FLOOR BOARDING', 900)  SELECT \* FROM JOB\_DETAILS; |

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| Job Table Inserts |
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| INSERT INTO JOB  VALUES(11000, 'CUST107', 'J100', '12 JANUARY 2020','18 JANUARY 2020',7)  INSERT INTO JOB  VALUES(10478, 'CUST108', 'J101', '15 JANUARY 2020','16 JANUARY 2020',2)  INSERT INTO JOB  VALUES(14253, 'CUST109', 'J102', '21 JANUARY 2020','22 JANUARY 2020',2)  INSERT INTO JOB  VALUES(11258, 'CUST100', 'J100', '12 JANUARY 2020','19 JANUARY 2020',8)  INSERT INTO JOB  VALUES(12058, 'CUST101', 'J101', '12 JANUARY 2020','14 JANUARY 2020',3)  INSERT INTO JOB  VALUES(13697, 'CUST102', 'J100', '13 JANUARY 2020','19 JANUARY 2020',7)  INSERT INTO JOB  VALUES(10211, 'CUST103', 'J100', '14 JANUARY 2020','20 JANUARY 2020',7)  INSERT INTO JOB  VALUES(10471, 'CUST104', 'J101', '20 JANUARY 2020','21 JANUARY 2020',2)  INSERT INTO JOB  VALUES(13521, 'CUST105', 'J101', '12 JANUARY 2020','14 JANUARY 2020',3)  INSERT INTO JOB  VALUES(10102, 'CUST106', 'J102', '23 JANUARY 2020','24 JANUARY 2020',2)  SELECT \* FROM JOB |

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| Employee\_Job Table Inserts |
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| INSERT INTO EMPLOYEE\_JOB  VALUES('EMP100\_11000',11000,'EMP100')  INSERT INTO EMPLOYEE\_JOB  VALUES('EMP920\_11000',11000,'EMP920')  INSERT INTO EMPLOYEE\_JOB  VALUES('EMP010\_11000',11000,'EMP010')  INSERT INTO EMPLOYEE\_JOB  VALUES('EMP920\_10478',10478,'EMP920')  INSERT INTO EMPLOYEE\_JOB  VALUES('EMP771\_14253',14253,'EMP771')  INSERT INTO EMPLOYEE\_JOB  VALUES('EMP681\_11258',11258,'EMP681')  INSERT INTO EMPLOYEE\_JOB  VALUES('EMP010\_11258',11258,'EMP010')  INSERT INTO EMPLOYEE\_JOB  VALUES('EMP771\_11258',11258,'EMP771')  INSERT INTO EMPLOYEE\_JOB  VALUES('EMP681\_12058',12058,'EMP681')  SELECT \* FROM EMPLOYEE\_JOB |

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| Materials Table Inserts |
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| INSERT INTO MATERIALS  VALUES('MAT001','STANDARD FLOOR BOARDS')  INSERT INTO MATERIALS  VALUES('MAT002','POWER POINTS')  INSERT INTO MATERIALS  VALUES('MAT003','STANDARD ELECTRICAL WIRING')  INSERT INTO MATERIALS  VALUES('MAT004','STANDARD STAIRS PACK')  SELECT \* FROM MATERIALS |

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| Materials\_Job Table Inserts |
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| INSERT INTO MATERIALS\_JOB  VALUES('MAT001',11258,80)  INSERT INTO MATERIALS\_JOB  VALUES('MAT002',11258,3)  INSERT INTO MATERIALS\_JOB  VALUES('MAT003',11258,20)  INSERT INTO MATERIALS\_JOB  VALUES('MAT004',11258,1)  INSERT INTO MATERIALS\_JOB  VALUES('MAT001',12058,60)  INSERT INTO MATERIALS\_JOB  VALUES('MAT002',12058,2)  INSERT INTO MATERIALS\_JOB  VALUES('MAT003',12058,15)  INSERT INTO MATERIALS\_JOB  VALUES('MAT001',13697,80)  INSERT INTO MATERIALS\_JOB  VALUES('MAT002',13697,4)  INSERT INTO MATERIALS\_JOB  VALUES('MAT003',13697,40)  INSERT INTO MATERIALS\_JOB  VALUES('MAT004',13697,1)  INSERT INTO MATERIALS\_JOB  VALUES('MAT001',10211,100)  INSERT INTO MATERIALS\_JOB  VALUES('MAT002',10211,5)  INSERT INTO MATERIALS\_JOB  VALUES('MAT003',10211,30)  INSERT INTO MATERIALS\_JOB  VALUES('MAT004',10211,1)  INSERT INTO MATERIALS\_JOB  VALUES('MAT001',10471,40)  INSERT INTO MATERIALS\_JOB  VALUES('MAT002',10471,1)  INSERT INTO MATERIALS\_JOB  VALUES('MAT003',10471,8)  INSERT INTO MATERIALS\_JOB  VALUES('MAT001',13521,65)  INSERT INTO MATERIALS\_JOB  VALUES('MAT002',13521,3)  INSERT INTO MATERIALS\_JOB  VALUES('MAT003',13521,18)  INSERT INTO MATERIALS\_JOB  VALUES('MAT001',10102,70)  INSERT INTO MATERIALS\_JOB  VALUES('MAT001',11000,90)  INSERT INTO MATERIALS\_JOB  VALUES('MAT002',11000,3)  INSERT INTO MATERIALS\_JOB  VALUES('MAT003',11000,20)  INSERT INTO MATERIALS\_JOB  VALUES('MAT004',11000,1)  INSERT INTO MATERIALS\_JOB  VALUES('MAT001',10478,50)  INSERT INTO MATERIALS\_JOB  VALUES('MAT002',10478,1)  INSERT INTO MATERIALS\_JOB  VALUES('MAT003',10478,10)  INSERT INTO MATERIALS\_JOB  VALUES('MAT001',14253,40)  SELECT \* FROM MATERIALS\_JOB; |

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| Query that selects all job cards and which employees worked on them: |
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| SELECT EMPLOYEE.EMP\_FIRST\_NAME, EMPLOYEE.EMP\_SURNAME, JOB.JOB\_CARD\_NO  FROM JOB  INNER JOIN EMPLOYEE\_JOB ON JOB.JOB\_CARD\_NO = EMPLOYEE\_JOB.JOB\_CARD\_NO  INNER JOIN EMPLOYEE ON EMPLOYEE.EMP\_ID = EMPLOYEE\_JOB.EMP\_ID  ORDER BY JOB\_CARD\_NO ASC |

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| Write a query that selects the materials that have been used on job cards of type ‘Full Conversion’: |
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| SELECT JD.JOB\_TYPE\_NAME, M.MATERIAL\_NAME, SUM(MJ.QUANTITY) AS TOTAL\_QUANTITY\_USED  FROM JOB J  INNER JOIN JOB\_DETAILS JD ON JD.JOB\_TYPE\_ID = J.JOB\_TYPE\_ID  INNER JOIN MATERIALS\_JOB MJ ON MJ.JOB\_CARD\_NO=J.JOB\_CARD\_NO  INNER JOIN MATERIALS M ON M.MATERIAL\_ID = MJ.MATERIAL\_ID  WHERE JD.JOB\_TYPE\_NAME = UPPER('Full Conversion')  GROUP BY JD.JOB\_TYPE\_NAME,M.MATERIAL\_NAME  ORDER BY TOTAL\_QUANTITY\_USED ASC; |

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| Write a query that selects all the job cards that Chris Byne has worked on: |
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| SELECT J.JOB\_CARD\_NO, J.CUSTOMER\_ID, J.JOB\_TYPE\_ID, J.START\_DATE, J.END\_DATE, J.NUM\_OF\_DAYS  FROM JOB J  INNER JOIN EMPLOYEE\_JOB EJ ON J.JOB\_CARD\_NO = EJ.JOB\_CARD\_NO  INNER JOIN EMPLOYEE E ON E.EMP\_ID = EJ.EMP\_ID  WHERE E.EMP\_FIRST\_NAME= UPPER('Chris')  AND E.EMP\_SURNAME = UPPER('Byne')  ORDER BY JOB\_CARD\_NO ASC; |

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| Write a query that shows all job cards that have taken place in addresses that contain ‘0001’ or ‘0002’: |
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| SELECT J.JOB\_CARD\_NO, J.CUSTOMER\_ID, J.JOB\_TYPE\_ID, J.START\_DATE, J.END\_DATE, J.NUM\_OF\_DAYS, C.CUSTOMER\_POSTAL\_CODE  FROM JOB J  INNER JOIN CUSTOMER C ON C.CUSTOMER\_ID = J.CUSTOMER\_ID  WHERE CUSTOMER\_POSTAL\_CODE LIKE '%0002%'  OR CUSTOMER\_POSTAL\_CODE LIKE '%0001%'  ORDER BY CUSTOMER\_POSTAL\_CODE; |

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| Write a query that counts the number of jobs that have used electrical wiring: |
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| SELECT COUNT(\*) AS JOBS\_USING\_ELECTRICAL\_WIRING  FROM JOB  INNER JOIN MATERIALS\_JOB ON MATERIALS\_JOB.JOB\_CARD\_NO= JOB.JOB\_CARD\_NO  INNER JOIN MATERIALS ON MATERIALS\_JOB.MATERIAL\_ID = MATERIALS.MATERIAL\_ID  WHERE MATERIAL\_NAME LIKE UPPER('%Electrical Wiring%'); |

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| Write a query that produces the output that could be used to prepare an invoice. This should include a calculation for VAT charged on a job card (calculated at 14% of total cost of the job card): |
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| SELECT J.JOB\_CARD\_NO, JD.JOB\_TYPE\_NAME, JD.DAILY\_RATE, J.NUM\_OF\_DAYS, C.CUSTOMER\_FISRT\_NAME, C.CUSTOMER\_LAST\_NAME, C.CUSTOMER\_EMAIL, C.CUSTOMER\_STREET\_ADDRESS, C.CUSTOMER\_CITY, C.CUSTOMER\_POSTAL\_CODE,  E.EMP\_ID, E.EMP\_FIRST\_NAME, E.EMP\_SURNAME, MJ.QUANTITY, M.MATERIAL\_NAME, CONCAT('R',SUM(JD.DAILY\_RATE\*J.NUM\_OF\_DAYS)) AS 'Subtotal', CONCAT('R',SUM(0.14\*JD.DAILY\_RATE\*J.NUM\_OF\_DAYS)) AS 'VAT@14%',  CONCAT('R',SUM(1.14\*JD.DAILY\_RATE\*J.NUM\_OF\_DAYS)) AS 'Total'  FROM  JOB J, JOB\_DETAILS JD, CUSTOMER C, EMPLOYEE E, MATERIALS M, MATERIALS\_JOB MJ, EMPLOYEE\_JOB EJ  WHERE  J.JOB\_CARD\_NO = MJ.JOB\_CARD\_NO  AND  J.JOB\_CARD\_NO = EJ.JOB\_CARD\_NO  AND  J.JOB\_TYPE\_ID = JD.JOB\_TYPE\_ID  AND  E.EMP\_ID = EJ.EMP\_ID  AND  C.CUSTOMER\_ID = J.CUSTOMER\_ID  GROUP BY J.JOB\_CARD\_NO, JD.JOB\_TYPE\_NAME, JD.DAILY\_RATE, J.NUM\_OF\_DAYS, C.CUSTOMER\_FISRT\_NAME, C.CUSTOMER\_LAST\_NAME,  C.CUSTOMER\_EMAIL, C.CUSTOMER\_STREET\_ADDRESS, C.CUSTOMER\_CITY, C.CUSTOMER\_POSTAL\_CODE, E.EMP\_ID, E.EMP\_FIRST\_NAME, E.EMP\_SURNAME, MJ.QUANTITY, M.MATERIAL\_NAME  ORDER BY J.JOB\_CARD\_NO  ; |

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| Update the daily rate of pay for a Full Conversion to R1 440.00: |
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| UPDATE JOB\_DETAILS  SET DAILY\_RATE = 1440  WHERE JOB\_TYPE\_NAME = 'Full Conversion';  SELECT \* FROM JOB\_DETAILS; |

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| Screenshot showing steps of the deployment to Azure |
| Log in to Azure and go to your portal. |
| Select “SQL Databases” |
| Select the option to add a database. |
| Enter the database name and choose an appropriate server |
| Select “Configure Database” and make sure “Want to use SQL elastic pool?” is set as “No” |
| Set the database option as basic and the max size to the minimum. |
| Apply changes and go back to the previous page. Then select “Networking” |
| Select “Next: Additional settings >” |
| Leave all the default values selected. Proceed to Tags |
| Proceed to the next page leaving the defaults. |
| Confirm your choices and create. |
| The newly created database will be visible on your recent resources. |

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| Screenshot showing Tables in Azure |
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| Screenshot showing the database creation in Azure |
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| Screenshot showing creation of tables in SQL Server Management Studio |
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| Screenshot showing an example SQL statement used to create a table |
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