

Weekly Assignment 16-Nov-24 : Informatica Tasks

1. For Each Department, Sort the Data on Manager ID and Emp_ID Desc

- Sort the data by Manager_id and then by Emp_id in descending order for each department.
- Use a Source Qualifier Transformation with a SQL Override or appropriate transformation to implement sorting.

The image displays three screenshots from Informatica PowerCenter, illustrating the implementation of a sorting task.

Top Screenshot: Mapping Designer
This window shows the 'Mapping Designer' interface. The left pane lists the 'Repositories' tree, including 'INFA_DEV_REP', 'DEV_FOLDER1', 'folder_2', and 'folder_3'. The 'folder_3' node is expanded, showing 'Business Components', 'Sources', 'Targets', 'Cubes', 'Dimensions', 'Transformations', 'Mappings', and 'User-Defined Functions'. The 'Mappings' node is selected, and the 'mp_sort' mapping is highlighted. The main pane shows the 'Mapping Designer' workspace with four data sources: 'employees (Microsoft SQL Source Definition)', 'SQ_employees (Source Qualifier)', 'emp_sort (Sort)', and 'emp_sort (Flat File)'. The 'employees' source is connected to the 'SQ_employees' source, which is then connected to the 'emp_sort' source. The 'emp_sort' source is connected to the 'emp_sort (Flat File)' target. The 'emp_sort' source is configured with a 'Sort' transformation, and the 'emp_sort (Flat File)' target is configured with a 'Flat File' transformation.

Middle Screenshot: Workflow Manager
This window shows the 'Workflow Manager' interface. The left pane lists the 'Repositories' tree, including 'INFA_DEV_REP', 'INF_DEV_INT', 'DEV_FOLDER1', 'folder_2', and 'folder_3'. The 'folder_3' node is expanded, showing 'Tasks', 'Sessions', 'Worklets', and 'Workflows'. The 'Workflows' node is selected, and the 'wf_q1' workflow is highlighted. The main pane shows the 'Workflow Designer' workspace with a 'Start' task connected to a 'ss_q1' task.

Bottom Screenshot: Workflow Monitor
This window shows the 'Workflow Monitor' interface. The left pane lists the 'Repositories' tree, including 'INFA_DEV_REP', 'INF_DEV_INT', 'DEV_FOLD', 'folder_2', and 'folder_3'. The 'folder_3' node is expanded, showing 'wf_q1'. The main pane shows a table of workflow runs.

Workflow Run	Start Time	Completion Time	Status
wf_q1	19-11-2024 20:41:44	19-11-2024 20:41:49	Succeeded
ss_q1	19-11-2024 20:41:44	19-11-2024 20:41:46	Succeeded

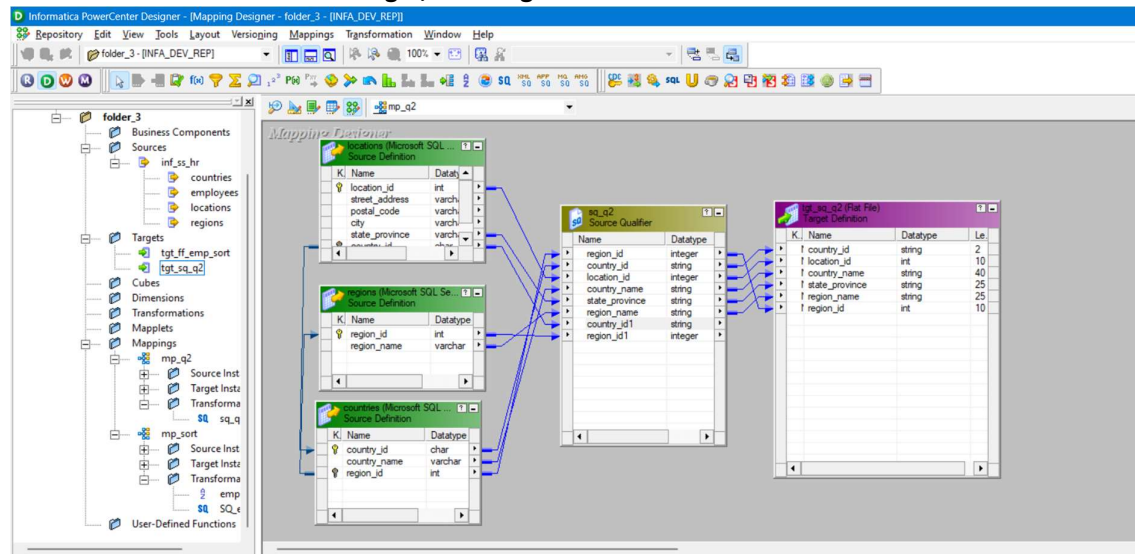
```
#employee_id,first_name,last_name,email,phone_number,hire_date,job_id,salary,manager_id,department_id
201,Michael,Hartstein,michael.hartstein@sqltutorial.org,515.123.5555,1996-02-17,10,13000.00,100,2
179,Charles,Johnson,charles.johnson@sqltutorial.org,,2000-01-04,16,6200.00,100,8
178,Kimberely,Grant,kimberely.grant@sqltutorial.org,,1999-05-24,16,7000.00,100,8
177,Jack,Livingston,jack.livingston@sqltutorial.org,,1998-04-23,16,8400.00,100,8
176,Jonathon,Taylor,jonathon.taylor@sqltutorial.org,,1998-03-24,16,8600.00,100,8
146,Karen,Partners,karen.partners@sqltutorial.org,,1997-01-05,15,13500.00,100,8
145,John,Russell,john.russell@sqltutorial.org,,1996-10-01,15,14000.00,100,8
123,Shanta,Vollman,shanta.vollman@sqltutorial.org,650.123.4234,1997-10-10,19,6500.00,100,5
122,Payam,Kaufling,payam.kaufling@sqltutorial.org,650.123.3234,1995-05-01,19,7900.00,100,5
121,Adam,Fripp,adam.fripp@sqltutorial.org,650.123.2234,1997-04-10,19,8200.00,100,5
120,Matthew,Weiss,matthew.weiss@sqltutorial.org,650.123.1234,1996-07-18,19,8000.00,100,5
114,Den,Raphaely,den.raphaely@sqltutorial.org,515.127.4561,1994-12-07,14,11000.00,100,3
102,Lex,De Haan,lex.de.haan@sqltutorial.org,515.123.4569,1993-01-13,5,17000.00,100,9
101,Neena,Kochhar,neena.kochhar@sqltutorial.org,515.123.4568,1989-09-21,5,17000.00,100,9
205,Shelley,Higgins,shelley.higgins@sqltutorial.org,515.123.8080,1994-06-07,2,12000.00,101,11
204,Hermann,Baer,hermann.baer@sqltutorial.org,515.123.8888,1994-06-07,12,10000.00,101,7
203,Susan,Mavris,susan.mavris@sqltutorial.org,515.123.7777,1994-06-07,8,6500.00,101,4
```

2. Location and Region Data Extract Using Source Qualifier SQL Override and Load

into Target File

- Extract Location and Region data using a Source Qualifier SQL Override.

- Load the data into a flat file target, ensuring the file format is accurate.



SQL Editor - sq_q2 (Expression)

Ports Variables

SQL:

```
SELECT countries.region_id, countries.country_id,
locations.location_id, countries.country_name,
locations.state_province, regions.region_name
FROM
countries, regions, locations
WHERE
regions.region_id=countries.region_id and
countries.country_id=locations.country_id
```

Instance Name: **countries**

Transformation Type: **Source Definition**

Connect to database:

ODBC data source: inf_ss_hr (SQL Server)

☐ Use Kerberos Authentication

Username: inf_dev_hr_1

Password: **

OK Cancel Generate SQL Validate Help

Workflow Designer

Start

ss_q2

Informatica PowerCenter Workflow Monitor

Repository Edit View Tools Task Filters Help

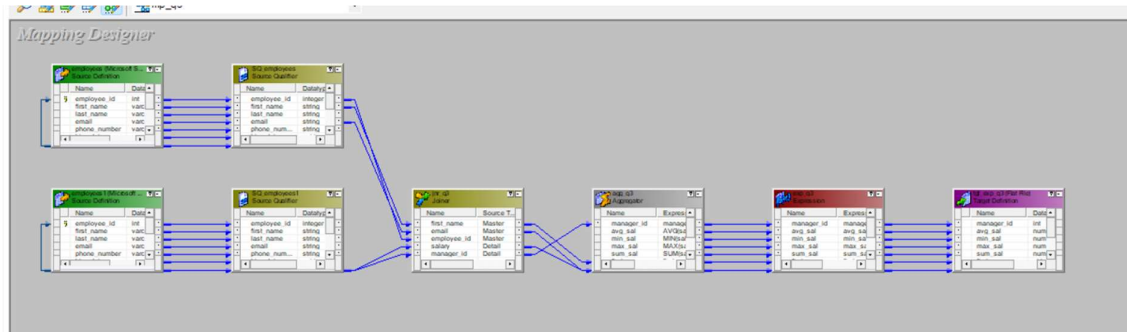
1 Hour

Repositories	Workflow Run	Start Time	Completion Time	Status
INFA_DEV_REP	wf_q2	19-11-2024 23:11:35	19-11-2024 23:11:42	Succeeded
INF_DEV_INT	ss_q2	19-11-2024 23:11:35	19-11-2024 23:11:37	Succeeded
folder_2	wf_q2	19-11-2024 23:07:58	19-11-2024 23:08:05	Succeeded
folder_3	ss_q2	19-11-2024 23:07:58	19-11-2024 23:08:01	Succeeded

```
#country_id|location_id|country_name|state_province|region_name|region_id
US|1400|United States of America|Texas|Americas|2
US|1500|United States of America|California|Americas|2
US|1700|United States of America|Washington|Americas|2
CA|1800|Canada|Ontario|Americas|2
UK|2400|United Kingdom|Europe|1
UK|2500|United Kingdom|Oxford|Europe|1
DE|2700|Germany|Bavaria|Europe|1
```

3. Get the Manager Name, Manager Email ID Domain, Max/Min/Avg Salary of Employees Under That Manager, and Load Date

- Use transformations to calculate salary metrics (max, min, avg) and derive the email domain.
- Add the current Load Date field using an expression and load the results into a target.



Edit Transformations

Transformation Ports Properties Condition Metadata Extensions

Select transformation: **Joiner**

Transformation type: Joiner

	Port Name	Datatype	Prec	Scale	I	O	M
1	first_name	string	20	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2	email	string	100	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3	employee_id	integer	10	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4	salary	decimal	8	2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	manager_id	integer	10	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Default value:

Description:

OK Cancel Apply Help

Edit Transformations

Transformation Ports Properties Metadata Extensions

Select transformation: **agg_q3**

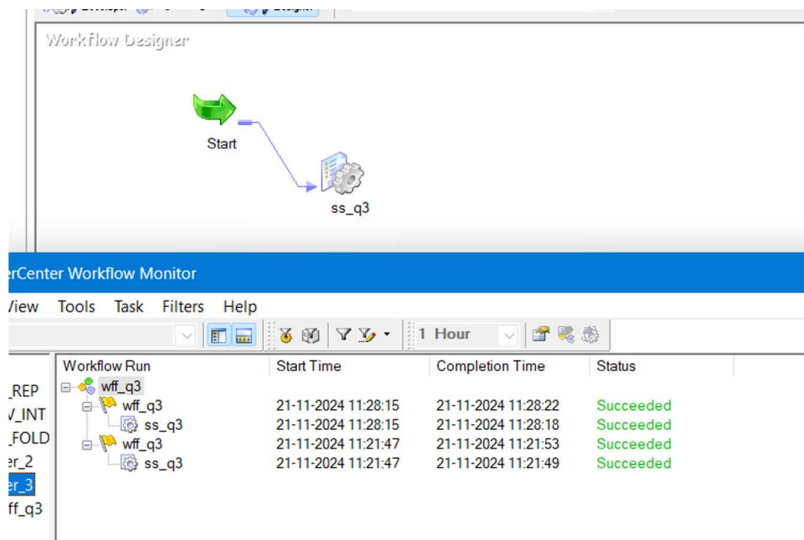
Transformation type: Aggregator

	Port Name	Datatype	Prec	Sc...	I	O	V	Expression	Grou...
1	manager_id	integer	10	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	manager_id	<input checked="" type="checkbox"/>
2	avg_sal	decimal	10	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	AVG(salary)	<input type="checkbox"/>
3	min_sal	decimal	10	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	MIN(salary)	<input type="checkbox"/>
4	max_sal	decimal	10	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	MAX(salary)	<input type="checkbox"/>
5	sum_sal	decimal	10	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	SUM(salary)	<input type="checkbox"/>
6	first_name	string	20	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	first_name	<input checked="" type="checkbox"/>
7	email	string	100	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	email	<input checked="" type="checkbox"/>
8	salary	decimal	8	2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	salary	<input type="checkbox"/>

Default value:

Description:

OK Cancel Apply Help

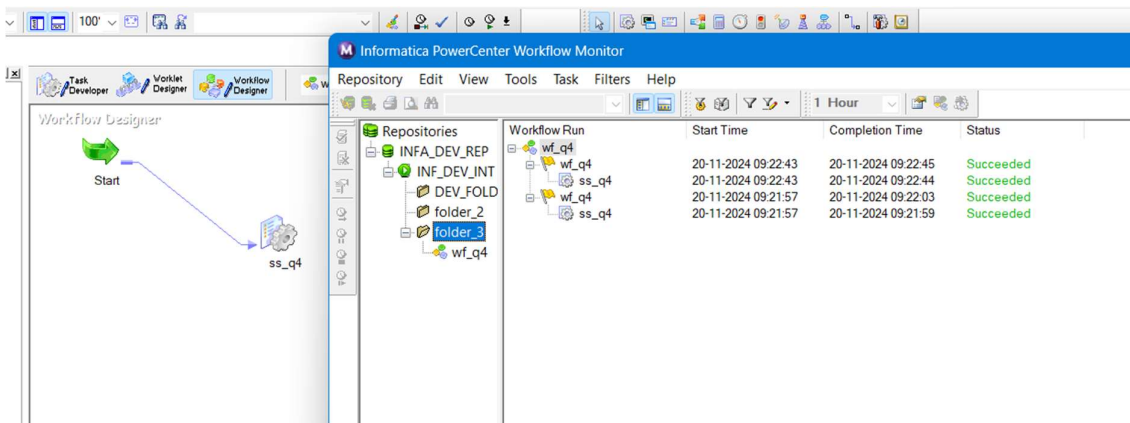
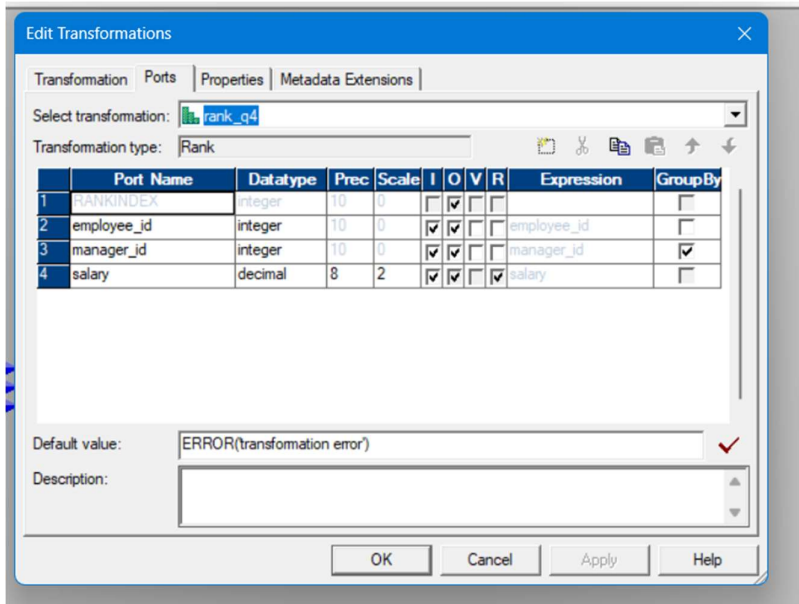
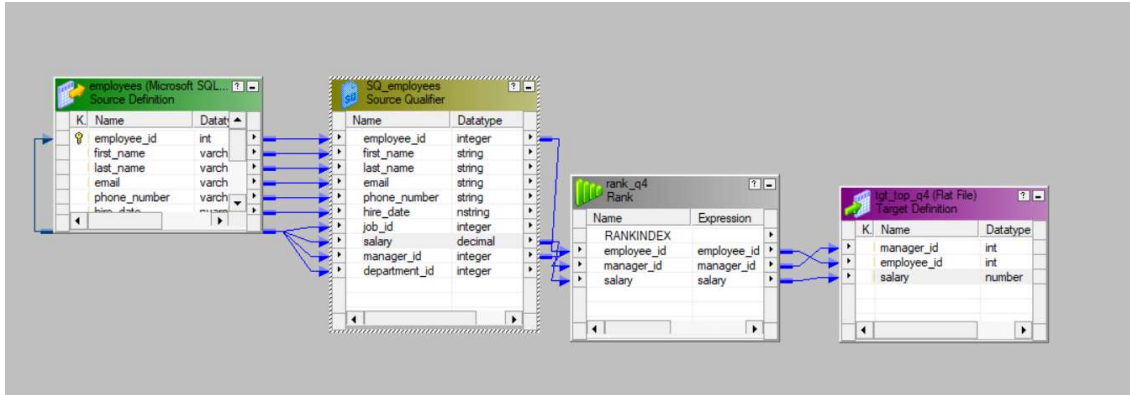


```

#manager_id,load_date,avg_sal,min_sal,max_sal,sum_sal,first_name,email,salary
100,11/21/2024 11:28:17,10450,6200,17000,146300,Steven,steven.king@sqltutorial.org,13000.00
101,11/21/2024 11:28:17,8980,4400,12000,44900,Neena,neena.kochhar@sqltutorial.org,12000.00
102,11/21/2024 11:28:17,9000,9000,9000,9000,Lex,lex.de haan@sqltutorial.org,9000.00
103,11/21/2024 11:28:17,4950,4200,6000,19800,Alexander,alexander.hunold@sqltutorial.org,4200.00
108,11/21/2024 11:28:17,7920,6900,9000,39600,Nancy,nancy.greenberg@sqltutorial.org,6900.00
114,11/21/2024 11:28:17,2780,2500,3100,13900,Den,den.raphaely@sqltutorial.org,2500.00
120,11/21/2024 11:28:17,2700,2700,2700,2700,Matthew,matthew.weiss@sqltutorial.org,2700.00
123,11/21/2024 11:28:17,3950,3900,4000,7900,Shanta,shanta.vollman@sqltutorial.org,3900.00
201,11/21/2024 11:28:17,6000,6000,6000,6000,Michael,michael.hartstein@sqltutorial.org,6000.00
205,11/21/2024 11:28:17,8300,8300,8300,8300,Shelley,shelley.higgins@sqltutorial.org,8300.00
  
```


4. Get Top Salary Employee Under Each Manager

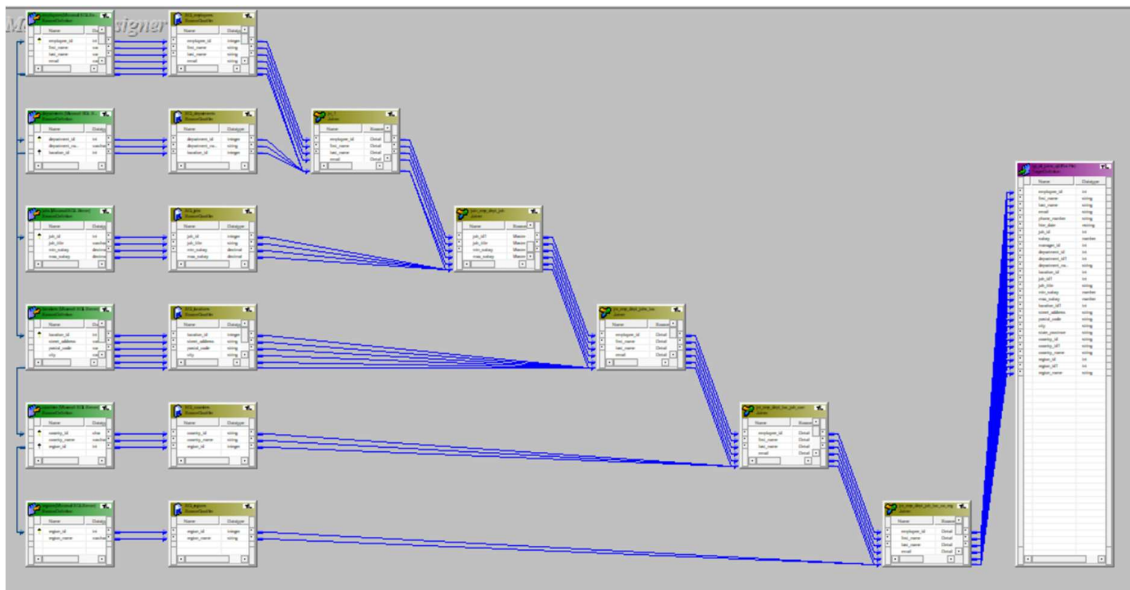
- Identify and extract the employee with the highest salary under each manager.
- Use a Rank Transformation or equivalent logic to achieve this.

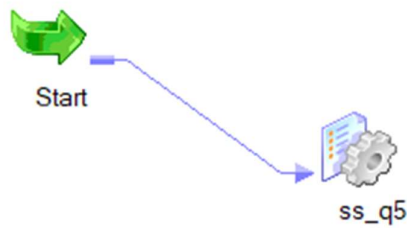


```
#manager_id|employee_id|salary
100|101|17000.00
101|108|12000.00
102|103|9000.00
103|104|6000.00
108|109|9000.00
114|115|3100.00
120|126|2700.00
123|192|4000.00
201|202|6000.00
205|206|8300.00
|100|24000.00
```

5. Get Employee ID, Full Name, Department Name, Location Details, Country Details, Region Details, Job Details Using Joiner

- Use a Joiner Transformation to consolidate data from multiple sources and fetch the specified fields.
- Ensure proper join conditions and types are applied to avoid data mismatch.





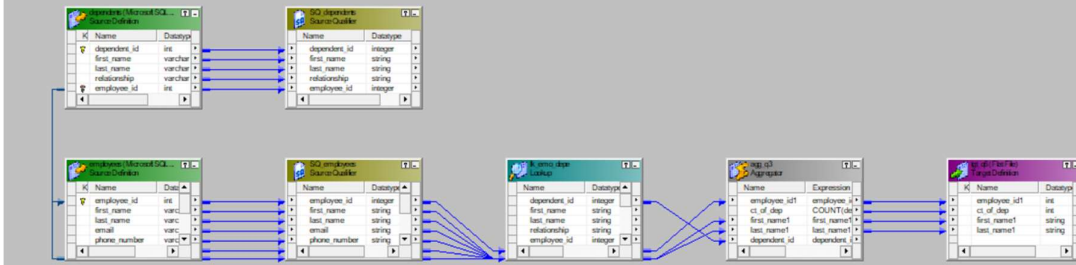
```

employee_id|first_name|last_name|email|phone_number|hire_date|job_id|salary|manager_id|department_id|department_name|location_id|job_id
|job_title|min_salary|max_salary|location_id|street_address|postal_code|city|state_province|country_id|country_name|region_id|region_name
100|Steven|King|steven.king@sqltutorial.org|515.122.4567|1987-06-17|4|24000.00|9|9|Executive|1700|4|President|20000.00|40000.00|1700|2004 Charade Rd|98199|Seattle|Washington|US|US|United States of America|2|2|Americas
101|Neena|Kochhar|neena.kochhar@sqltutorial.org|515.123.4568|1989-09-21|5|17000.00|100|9|9|Executive|1700|5|Administration Vice President|15000.00|30000.00|1700|2004 Charade Rd|98199|Seattle|Washington|US|US|United States of America|2|2|Americas
102|Lex|De Haan|lex.de.haan@sqltutorial.org|515.122.4569|1993-01-13|5|17000.00|100|9|9|Executive|1700|5|Administration Vice President|15000.00|30000.00|1700|2004 Charade Rd|98199|Seattle|Washington|US|US|United States of America|2|2|Americas
103|Alexander|Hunold|alexander.hunold@sqltutorial.org|590.423.4567|1990-01-03|9|9000.00|102|6|6|IT|1400|9|Programmer|4000.00|10000.00|1400|2014 Jabberwocky Rd|26192|Southlake|Texas|US|US|United States of America|2|2|Americas
104|Bruce|Ernst|bruce.ernst@sqltutorial.org|590.423.4568|1991-05-21|9|6000.00|103|6|6|IT|1400|9|Programmer|4000.00|10000.00|1400|2014 Jabberwocky Rd|26192|Southlake|Texas|US|US|United States of America|2|2|Americas
105|David|Austin|david.austin@sqltutorial.org|590.423.4569|1997-06-25|9|4800.00|103|6|6|IT|1400|9|Programmer|4000.00|10000.00|1400|2014 Jabberwocky Rd|26192|Southlake|Texas|US|US|United States of America|2|2|Americas
106|Valli|Pataballa|valli.pataballa@sqltutorial.org|590.423.4560|1998-02-05|9|4800.00|103|6|6|IT|1400|9|Programmer|4000.00|10000.00|1400|2014 Jabberwocky Rd|26192|Southlake|Texas|US|US|United States of America|2|2|Americas
107|Diana|Lorentz|diana.lorentz@sqltutorial.org|590.423.4567|1999-02-07|9|4200.00|103|6|6|IT|1400|9|Programmer|4000.00|10000.00|1400|2014 Jabberwocky Rd|26192|Southlake|Texas|US|US|United States of America|2|2|Americas
108|Nancy|Greenberg|nancy.greenberg@sqltutorial.org|515.124.4569|1994-08-17|7|12000.00|101|10|10|Finance|1700|7|Finance Manager|8200.00|16000.00|1700|2004 Charade Rd|98199|Seattle|Washington|US|US|United States of America|2|2|Americas
109|Daniel|Faviet|daniel.faviet@sqltutorial.org|515.124.4169|1994-08-16|6|9000.00|108|10|10|Finance|1700|6|Accountant|4200.00|9000.00|1700|2004 Charade Rd|98199|Seattle|Washington|US|US|United States of America|2|2|Americas
110|John|Chen|john.chen@sqltutorial.org|515.124.4269|1997-09-28|6|8200.00|108|10|10|Finance|1700|6|Accountant|4200.00|9000.00|1700|2004 Charade Rd|98199|Seattle|Washington|US|US|United States of America|2|2|Americas
111|Ismael|Sciarra|ismael.sciarra@sqltutorial.org|515.124.4369|1997-09-30|6|7700.00|108|10|10|Finance|1700|6|Accountant|4200.00|9000.00|1700|2004 Charade Rd|98199|Seattle|Washington|US|US|United States of America|2|2|Americas
112|Jose Manuel|Urman|josemanuel.urman@sqltutorial.org|515.124.4469|1998-03-07|6|7800.00|108|10|10|Finance|1700|6|Accountant|4200.00|9000.00|1700|2004 Charade Rd|98199|Seattle|Washington|US|US|United States of America|2|2|Americas
113|Luis|Popp|luis.popp@sqltutorial.org|515.124.4567|1999-12-07|6|6900.00|108|10|10|Finance|1700|6|Accountant|4200.00|9000.00|1700|2004 Charade Rd|98199|Seattle|Washington|US|US|United States of America|2|2|Americas
114|Den|Raphaely|den.raphaely@sqltutorial.org|515.127.4561|1994-12-07|14|11000.00|100|3|3|Purchasing|1700|14|Purchasing Manager|8000.00|15000.00|1700|2004 Charade Rd|98199|Seattle|Washington|US|US|United States of America|2|2|Americas
115|Alexander|Khoo|alexander.khoo@sqltutorial.org|515.127.4562|1995-05-18|13|3100.00|114|3|3|Purchasing|1700|13|Purchasing Clerk|2500.00|5500.00|1700|2004 Charade Rd|98199|Seattle|Washington|US|US|United States of America|2|2|Americas
116|Shelli|Baida|shelli.baida@sqltutorial.org|515.127.4563|1997-12-24|13|2900.00|114|3|3|Purchasing|1700|13|Purchasing Clerk|2500.00|5500.00|1700|2004 Charade Rd|98199|Seattle|Washington|US|US|United States of America|2|2|Americas
117|Sigal|Tobias|sigal.tobias@sqltutorial.org|515.127.4564|1997-07-24|13|2800.00|114|3|3|Purchasing|1700|13|Purchasing Clerk|2500.00|5500.00|1700|2004 Charade Rd|98199|Seattle|Washington|US|US|United States of America|2|2|Americas
118|Guy|Himuro|guy.himuro@sqltutorial.org|515.127.4565|1998-11-15|13|2600.00|114|3|3|Purchasing|1700|13|Purchasing Clerk|2500.00|5500.00|1700|2004 Charade Rd|98199|Seattle|Washington|US|US|United States of America|2|2|Americas
  
```

6. Get Employee Name and Dependent Count Using Aggregator and Lookup

- Use a Lookup Transformation to retrieve dependent details for each employee.
- Use an Aggregator Transformation to count the dependents per employee.

Mapping Designer



```
#employee_id|ct_of_dep|first_name1|last_name1
100|1|Steven|King
101|1|Neena|Kochhar
102|1|Lex|De Haan
103|1|Alexander|Hunold
104|1|Bruce|Ernst
105|1|David|Austin
106|1|Valli|Patlaballa
107|1|Diana|Lorentz
108|1|Nancy|Greenberg
109|1|Daniel|Faviet
110|1|John|Chen
111|1|Ismael|Sciarra
112|1|Jose Manuel|Urman
113|1|Luis|Popp
114|1|Den|Raphaely
115|1|Alexander|Khoo
116|1|Shelli|Baida
117|1|Sigal|Tobias
118|1|Guy|Himuro
119|1|Karen|Colmenares
120|0|Matthew|Weiss
121|0|Adam|Fripp
122|0|Payam|Kaufling
123|0|Shanta|Vollman
126|0|Irene|Mikkilineni
145|1|John|Russell
146|1|Karen|Partners
176|1|Jonathon|Taylor
177|0|Jack|Livingston
178|0|Kimberely|Grant
179|0|Charles|Johnson
192|0|Sarah|Bell
193|0|Britney|Everett
200|1|Jennifer|Whalen
201|1|Michael|Hartstein
202|1|Pat|Fay
203|1|Susan|Mavris
204|1|Hermann|Baer
205|1|Shelley|Higgins
```