

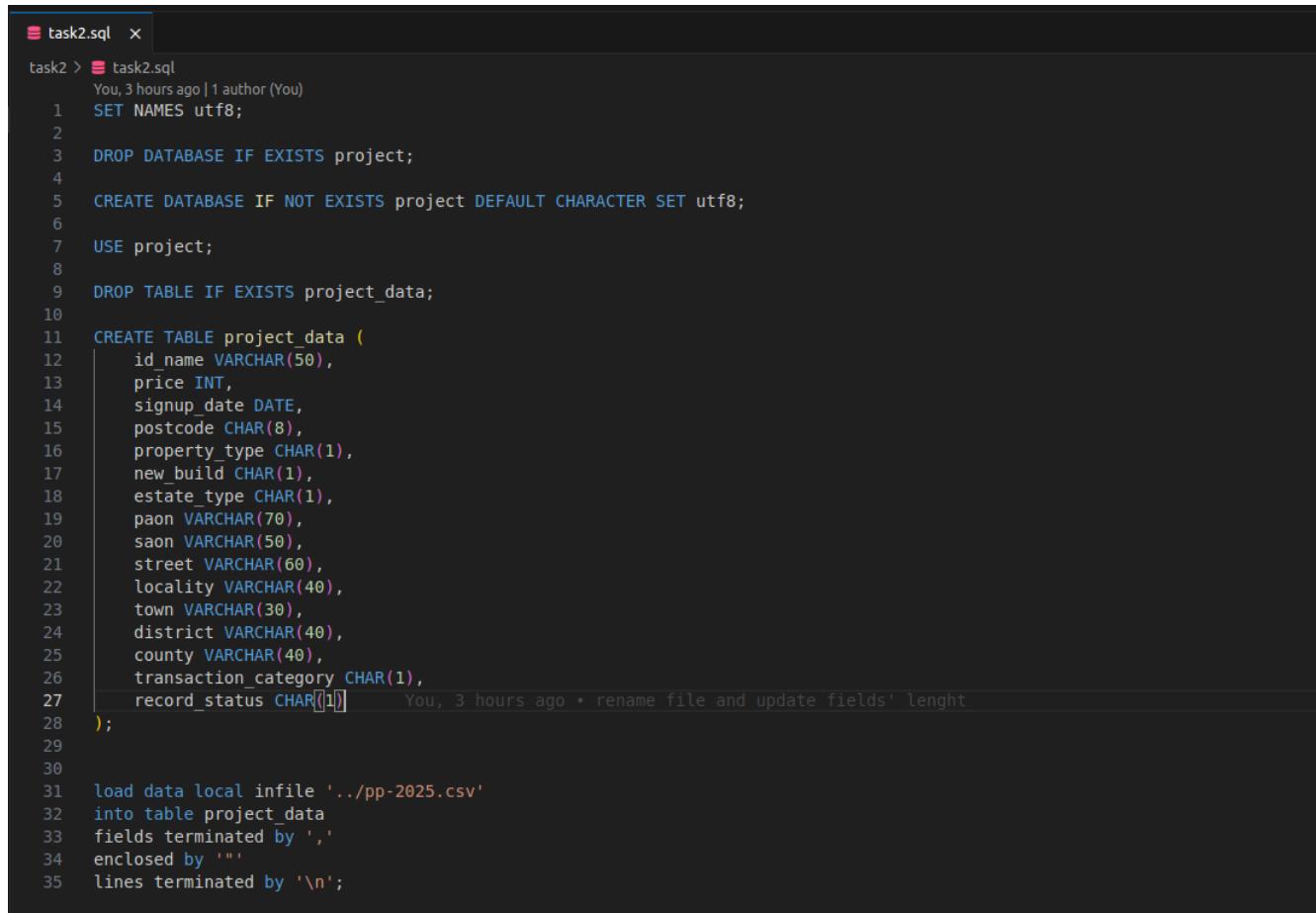
AID – Group 47

Afonso Mateus - ist1107316

João Pinho – ist1102765

2025/2026 P1

Task 2



The image shows a screenshot of a code editor window titled "task2.sql". The code is an SQL script with the following content:

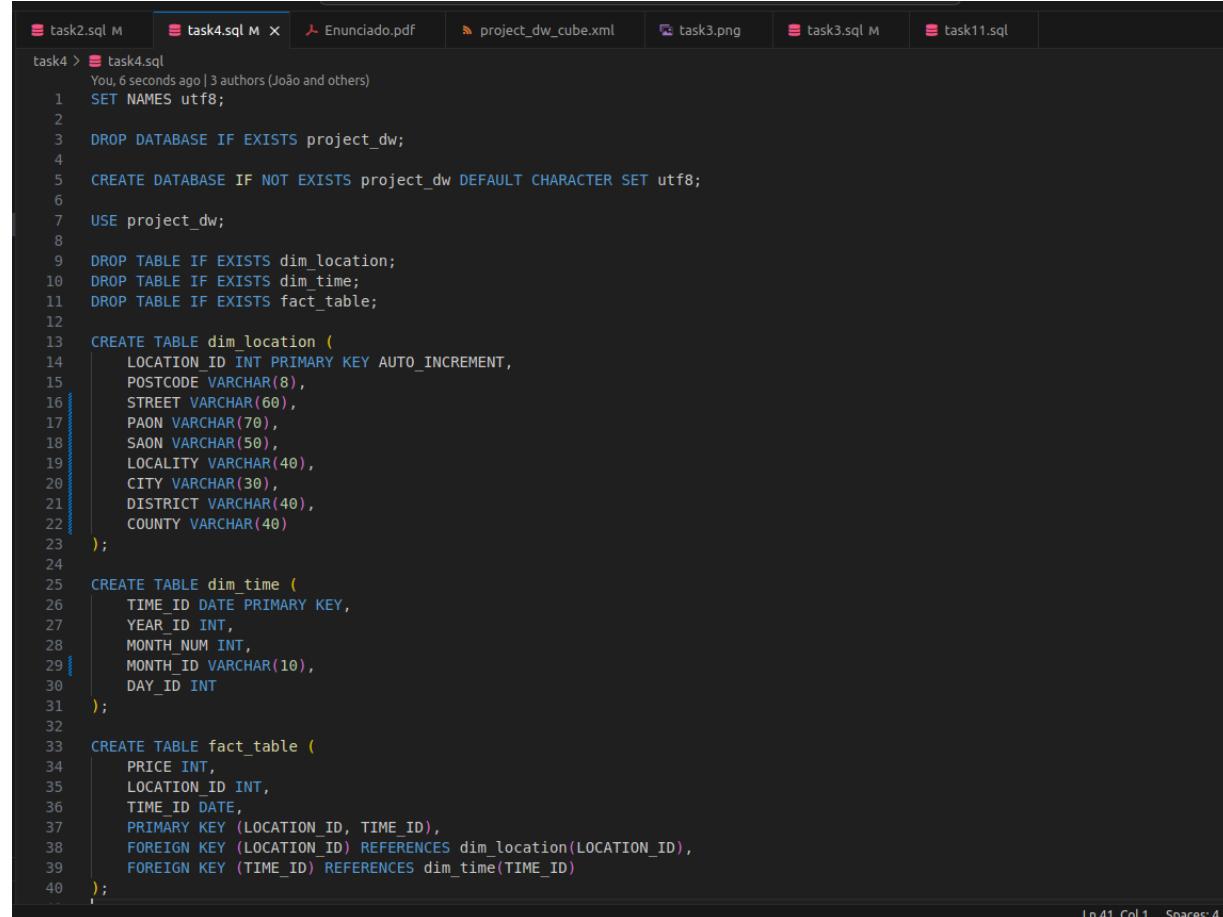
```
task2 > task2.sql
You, 3 hours ago | 1 author (You)
1 SET NAMES utf8;
2
3 DROP DATABASE IF EXISTS project;
4
5 CREATE DATABASE IF NOT EXISTS project DEFAULT CHARACTER SET utf8;
6
7 USE project;
8
9 DROP TABLE IF EXISTS project_data;
10
11 CREATE TABLE project_data (
12     id_name VARCHAR(50),
13     price INT,
14     signup_date DATE,
15     postcode CHAR(8),
16     property_type CHAR(1),
17     new_build CHAR(1),
18     estate_type CHAR(1),
19     paon VARCHAR(70),
20     saon VARCHAR(50),
21     street VARCHAR(60),
22     locality VARCHAR(40),
23     town VARCHAR(30),
24     district VARCHAR(40),
25     county VARCHAR(40),
26     transaction_category CHAR(1),
27     record_status CHAR[1]          You, 3 hours ago * rename file and update fields' lenght
28 );
29
30
31 load data local infile '../pp-2025.csv'
32 into table project_data
33 fields terminated by ','
34 enclosed by ""
35 lines terminated by '\n';
```

Task 3

```
mysql> SELECT county, district, town, signup_date, sum(price) AS sales_number
-> FROM project_data
-> GROUP BY county, district, town, signup_date
-> ORDER BY sales_number DESC
-> LIMIT 10;
+-----+-----+-----+-----+-----+
| county | district | town | signup_date | sales_number |
+-----+-----+-----+-----+-----+
| GREATER LONDON | CITY OF WESTMINSTER | LONDON | 2025-03-31 | 176311857 |
| GREATER LONDON | KENSINGTON AND CHELSEA | LONDON | 2025-02-21 | 173045806 |
| HERTFORDSHIRE | DACORUM | TRING | 2025-05-19 | 168000000 |
| GREATER LONDON | CITY OF WESTMINSTER | LONDON | 2025-01-21 | 164286499 |
| THURROCK | THURROCK | PURFLEET-ON-THAMES | 2025-01-24 | 139567500 |
| GREATER LONDON | CITY OF LONDON | LONDON | 2025-01-22 | 109500000 |
| GREATER LONDON | WANDSWORTH | LONDON | 2025-03-28 | 86452086 |
| PORTSMOUTH | PORTSMOUTH | PORTSMOUTH | 2025-04-30 | 85934245 |
| MERSEYSIDE | LIVERPOOL | LIVERPOOL | 2025-04-30 | 85381020 |
| ESSEX | EPPING FOREST | BUCKHURST HILL | 2025-02-07 | 83464000 |
+-----+-----+-----+-----+-----+
10 rows in set (5.12 sec)

mysql> |
```

Task 4

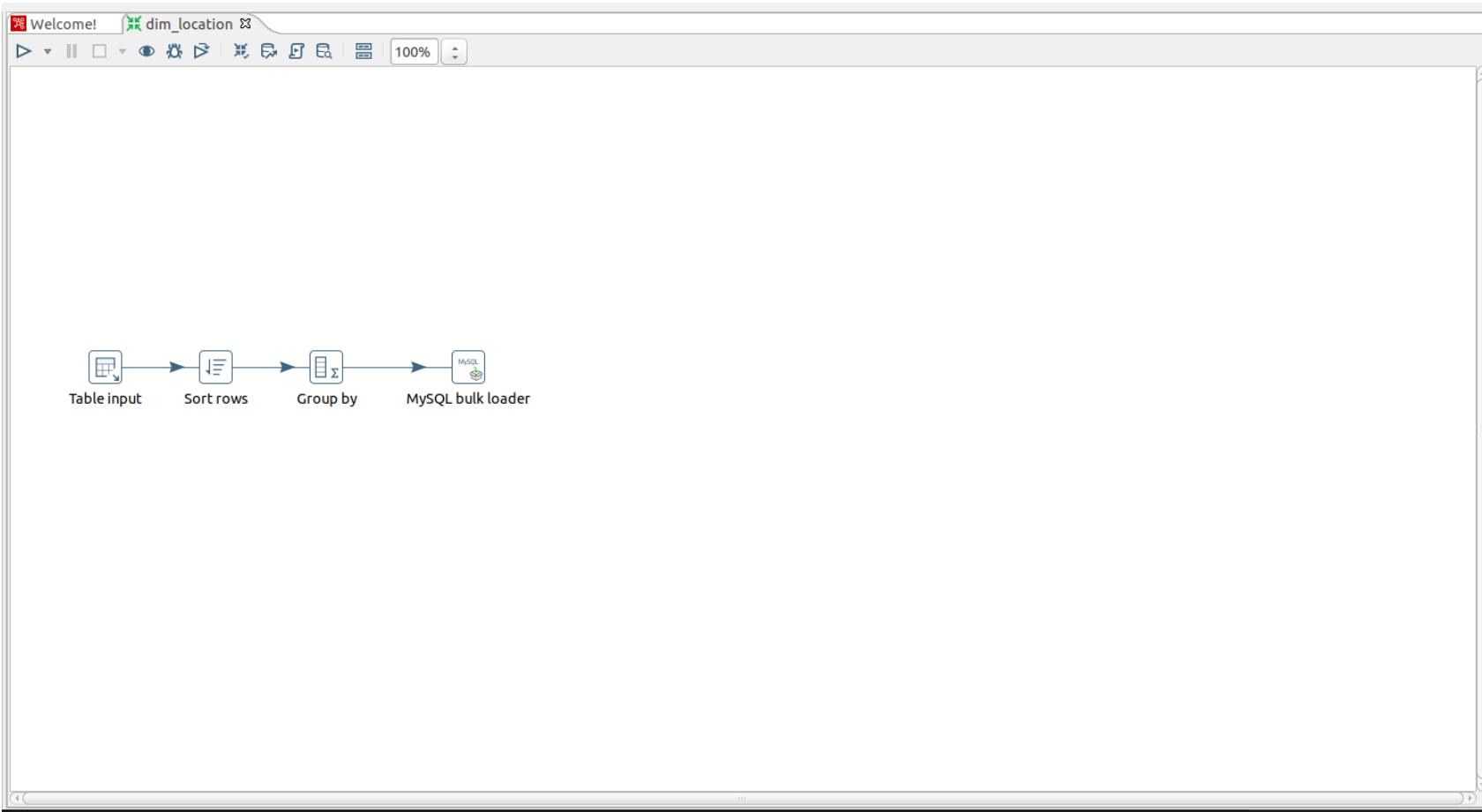


The screenshot shows a terminal window with a dark theme. The current directory is 'task4' and the file being edited is 'task4.sql'. The code creates a database 'project_dw' and three tables: 'dim_location', 'dim_time', and 'fact_table'. The 'dim_location' table has columns for LOCATION_ID (primary key), POSTCODE, STREET, PAON, SAON, LOCALITY, CITY, DISTRICT, and COUNTY. The 'dim_time' table has columns for TIME_ID (primary key), YEAR_ID, MONTH_NUM, MONTH_ID, and DAY_ID. The 'fact_table' table has columns for PRICE, LOCATION_ID, and TIME_ID, with primary keys on LOCATION_ID and TIME_ID, and foreign keys referencing dim_location and dim_time respectively.

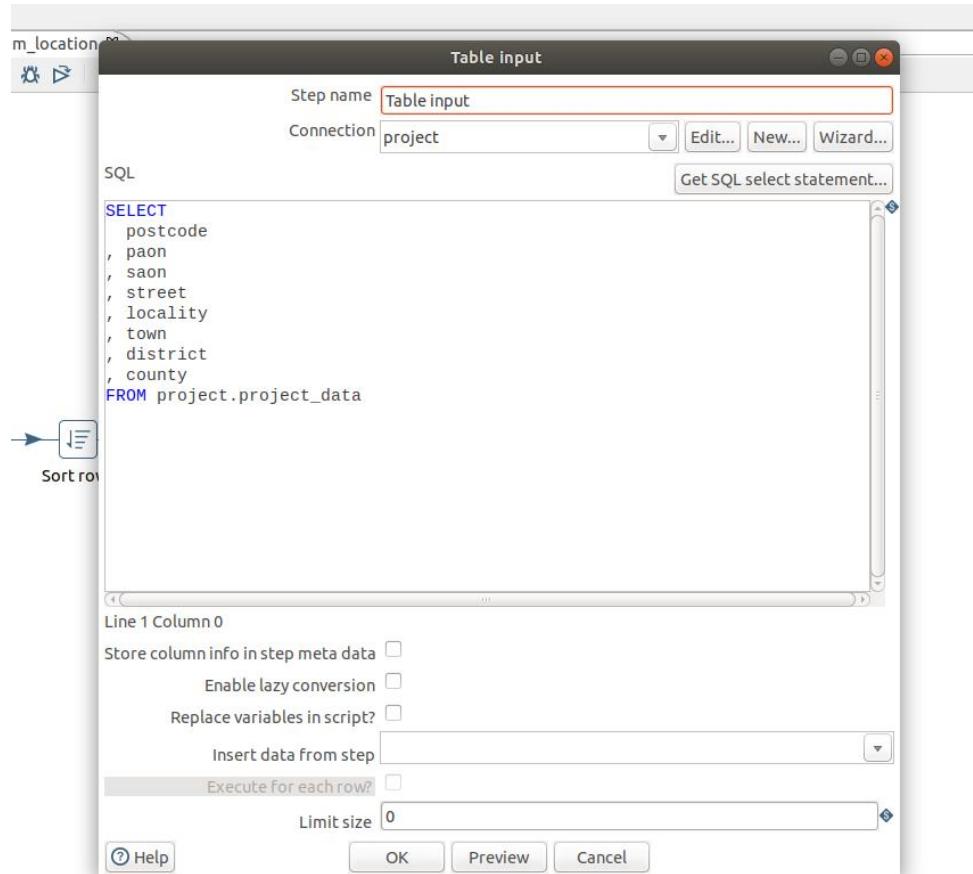
```
task4 > task4.sql
You, 6 seconds ago | 3 authors (João and others)
1 SET NAMES utf8;
2
3 DROP DATABASE IF EXISTS project_dw;
4
5 CREATE DATABASE IF NOT EXISTS project_dw DEFAULT CHARACTER SET utf8;
6
7 USE project_dw;
8
9 DROP TABLE IF EXISTS dim_location;
10 DROP TABLE IF EXISTS dim_time;
11 DROP TABLE IF EXISTS fact_table;
12
13 CREATE TABLE dim_location (
14     LOCATION_ID INT PRIMARY KEY AUTO_INCREMENT,
15     POSTCODE VARCHAR(8),
16     STREET VARCHAR(60),
17     PAON VARCHAR(70),
18     SAON VARCHAR(50),
19     LOCALITY VARCHAR(40),
20     CITY VARCHAR(30),
21     DISTRICT VARCHAR(40),
22     COUNTY VARCHAR(40)
23 );
24
25 CREATE TABLE dim_time (
26     TIME_ID DATE PRIMARY KEY,
27     YEAR_ID INT,
28     MONTH_NUM INT,
29     MONTH_ID VARCHAR(10),
30     DAY_ID INT
31 );
32
33 CREATE TABLE fact_table (
34     PRICE INT,
35     LOCATION_ID INT,
36     TIME_ID DATE,
37     PRIMARY KEY (LOCATION_ID, TIME_ID),
38     FOREIGN KEY (LOCATION_ID) REFERENCES dim_location(LOCATION_ID),
39     FOREIGN KEY (TIME_ID) REFERENCES dim_time(TIME_ID)
40 );
```

Ln 41, Col 1 Spaces: 4 U

Task 5 – Transformation



Task 5 – Table Input - Configuration

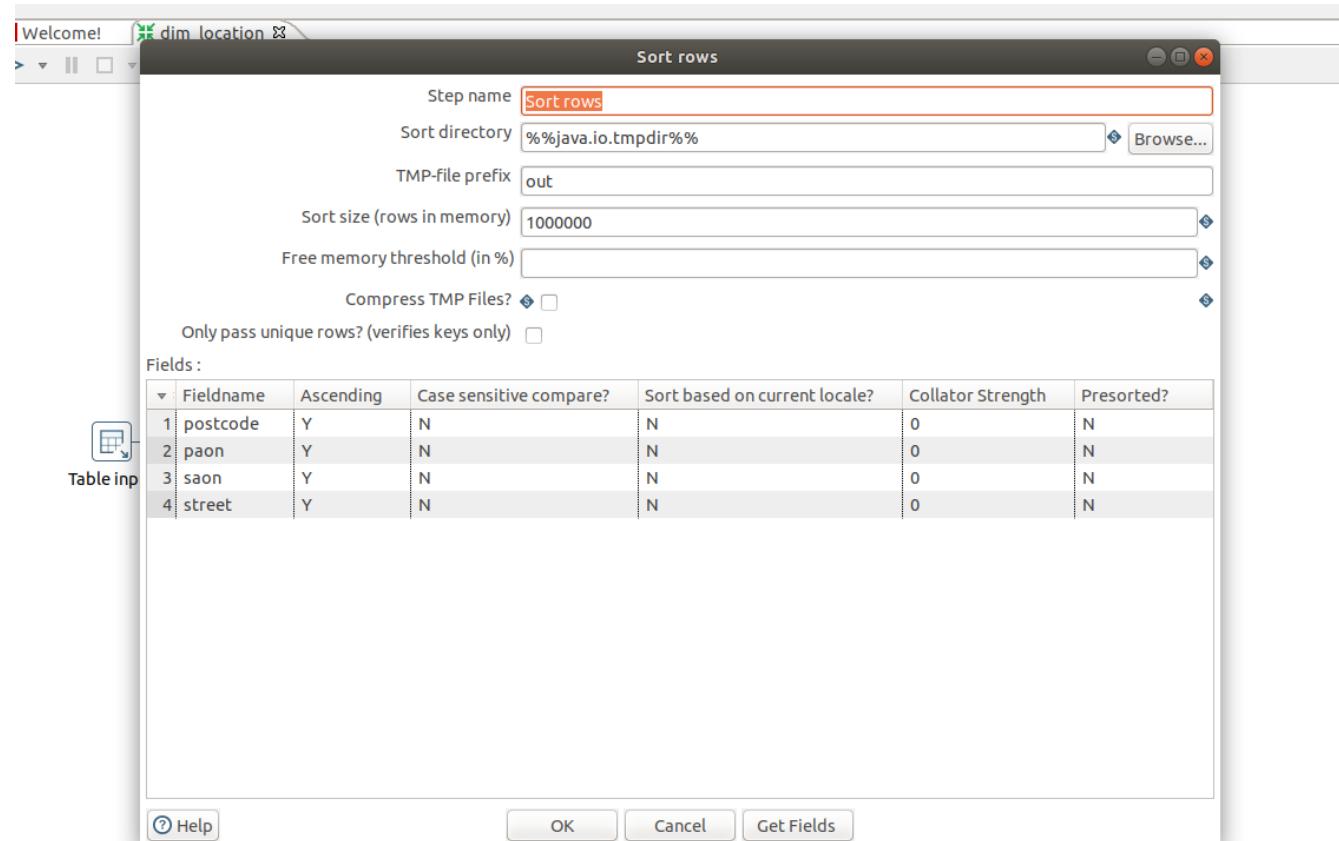


Task 5 – Table Input - Preview

Rows of step: Table input (1000 rows)

postcode	paon	saon	street	locality	town	district	county
CH7 3JA	IVY HOUSE		KNOWLE LANE		BUCKLEY	FLINTSHIRE	FLINTSHIRE
LL13 7EJ	2		STRETTON CLOSE		WREXHAM	WREXHAM	WREXHAM
LD3 0LP	18		PARCY BERLLAN	BRONLLYS	BRECON	POWYS	POWYS
CF33 6AP	29		MILL ROAD	PYLE	BRIDGEND	BRIDGEND	BRIDGEND
SAS 5QQ	36		LARK PLACE	BLAENYMAES	SWANSEA	SWANSEA	SWANSEA
SA4 6TB	4		THE CROFT	LOUGHOR	SWANSEA	SWANSEA	SWANSEA
CF81 8PH	59		JOHN STREET		BARGOED	CAERPHILLY	CAERPHILLY
CF31 2BJ	10		HAZEL TREE WAY	BRACKLA	BRIDGEND	BRIDGEND	BRIDGEND
LL36 9YU	NANT			ABERGYNOLWYN	TYWYN	Gwynedd	Gwynedd
CF62 8AF	13		COED Y CAPEL		BARRY	THE VALE OF GLAMORGAN	THE VALE OF GLAMORGAN
LL18 4DF	8		GRANGE COURT		RHYL	DENBIGHSHIRE	DENBIGHSHIRE
SA62 6HL	HUNTERS LODGE		CHAPEL ROAD	KEESTON	HAVERFORDWEST	PEMBROKESHIRE	PEMBROKESHIRE
NP18 1LF	14		CAMBRIA CLOSE	CAERLEON	NEWPORT	NEWPORT	NEWPORT
LL36 9AW	16		IDRIS VILLAS		TYWYN	Gwynedd	Gwynedd
CF15 9PP	3		BERTHLLWYD	PENTYRCH	CARDIFF	CARDIFF	CARDIFF
SY24 5DF	69		BRYNCASELL		BOW STREET	CEREDIGION	CEREDIGION
NP12 1WH	60		CHARTIST WAY		BLACKWOOD	CAERPHILLY	CAERPHILLY
SA13 2AS	11		MORLAIS ROAD		PORT TALBOT	NEATH PORT TALBOT	NEATH PORT TALBOT
SY18 6EJ	20		SMITHFIELD STREET		LLANIDLOES	POWYS	POWYS
LL34 6LH	30		ERASMUS STREET		PENNAENMAWR	CONWY	CONWY
LL28 4SU	39		BODNANT ROAD	RHOS ON SEA	COLWYN BAY	CONWY	CONWY
NP49 NNN	22		UPPER HILL STREET	BLAENAVON	PONTYPOOL	TORFAEN	TORFAEN
LL57 2YT	5		ORME TERRACE		BANGOR	Gwynedd	Gwynedd
LL13 9AY	66		TAN Y DRE		WREXHAM	WREXHAM	WREXHAM
LL29 9UR	18		COED COCH ROAD	OLD COLWYN	COLWYN BAY	CONWY	CONWY
SA73 3EU	124		OBSERVATORY AVENUE	HAKIN	MILFORD HAVEN	PEMBROKESHIRE	PEMBROKESHIRE
LL19 9PG	51		ORME VIEW DRIVE		PRESTATYN	DENBIGHSHIRE	DENBIGHSHIRE
SA41 3QJ	9		MAESYFRENNI		CRYMYCH	PEMBROKESHIRE	PEMBROKESHIRE
NP20 6FX	6		MARCONI CLOSE		NEWPORT	NEWPORT	NEWPORT
NP48 DDE	1		PARK COURT		PONTYPOOL	TORFAEN	TORFAEN
SA67 8LX	19		SUMMERHILL	STEPASIDE	NARBERTH	PEMBROKESHIRE	PEMBROKESHIRE
SA11 4NN	19		MAES Y TYRA	RESOLVEN	NEATH	NEATH PORT TALBOT	NEATH PORT TALBOT
CF37 3EQ	6		LON HELYGEN	COED Y CWM	PONTYPRIDD	RHONDDA CYNON TAFF	RHONDDA CYNON TAFF

Task 5 – Sort Rows - Configuration



Task 5 – Sort Rows - Preview

Activities SWT

Rows of step: Sort rows (1000 rows)

Examine preview data

Wed 16:06 •

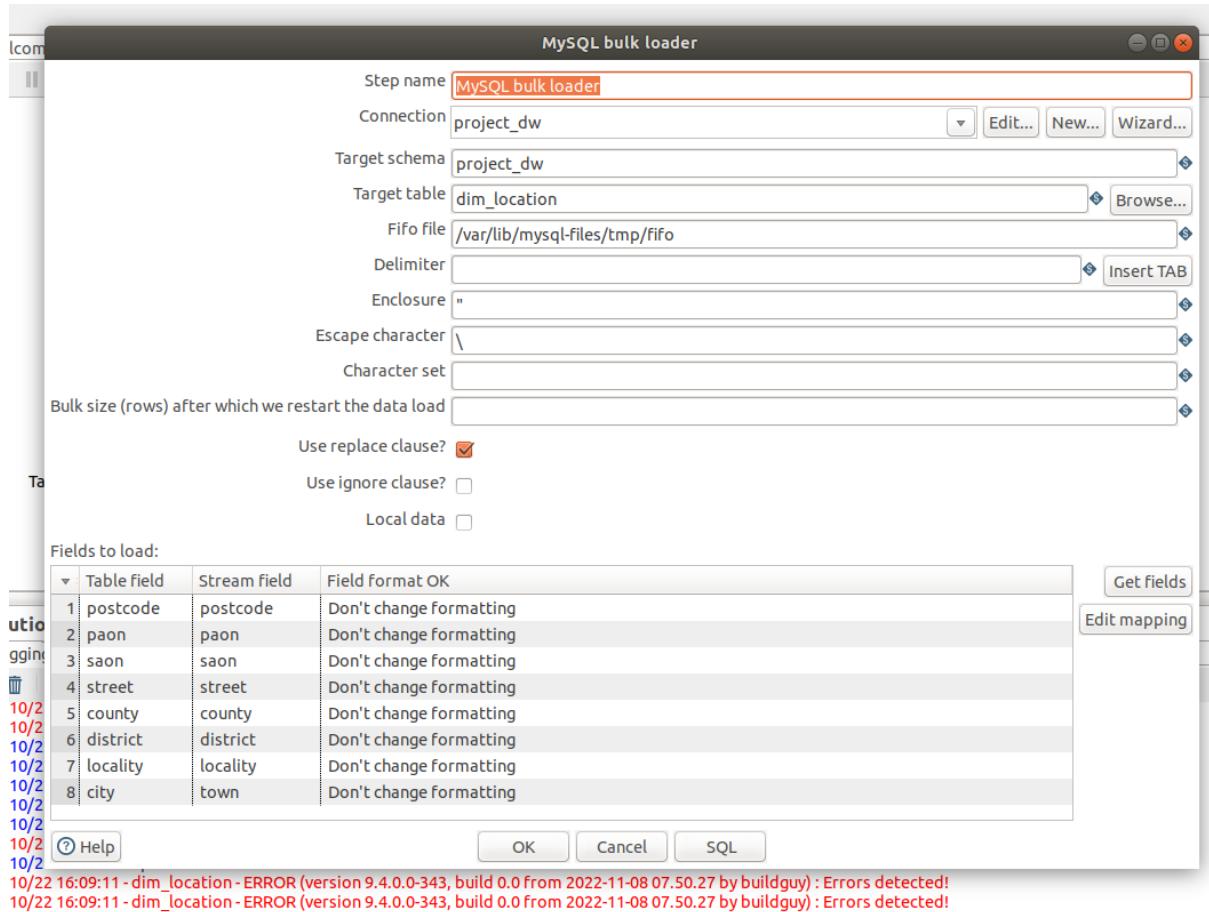
	postcode	paon	saon	street	locality	town	district	county
1	1			ARY BRYN	LLANDISSILIO	CLYNDERWEN	PEMBROKESHIRE	PEMBROKESHIRE
2	1			COXS LANE	LITTLE CRANSLEY	KETTERING	NORTH NORTHAMPTONSHIRE	NORTH NORTHAMPTONSHIRE
3	1			TAN Y BANNAU		YSTRAD MEURIG	CEREDIGION	CEREDIGION
4	1			THE OLD BAKERY	STOKE FLEMING	DARTMOUTH	SOUTH HAMS	DEVON
5	1 - 3			CORPORATION STREET		HYDE	TAMESIDE	GREATER MANCHESTER
6	10		GARAGE	MILL LANE		LINCOLN	LINCOLN	LINCOLNSHIRE
7	102		APARTMENT 1	DUKE STREET		LIVERPOOL	LIVERPOOL	MERSEYSIDE
8	105 - 106		205	THE ESPLANADE		WEYMOUTH	DORSET	DORSET
9	119			ROSE HILL		OXFORD	OXFORD	OXFORDSHIRE
10	119A			ST GEORGES ROAD		CHELTONHAM	CHELTONHAM	GLoucestershire
11	12			BEACON LANE		LIVERPOOL	LIVERPOOL	MERSEYSIDE
12	12			HIGHER BRIMLEY		TEIGNMOUTH	TEIGNBRIDGE	DEVON
13	12			SOUTH TERRACE		SEAHAM	COUNTY DURHAM	COUNTY DURHAM
14	12		BASEMENT PARKING SPACE 14	AVENUE ROAD		LONDON	CAMDEN	GREATER LONDON
15	12		BASEMENT PARKING SPACE 15	AVENUE ROAD		LONDON	CAMDEN	GREATER LONDON
16	12		FLAT 2	LANSDOWN CRESCENT		BATH	BATH AND NORTH EAST SOMERSET	BATH AND NORTH EAST SOMERSET
17	12 - 18		GARAGE 2	HILL STREET		LONDON	CITY OF WESTMINSTER	GREATER LONDON
18	150 - 164		UNIT 3	HOMERTON HIGH STREET		LONDON	HACKNEY	GREATER LONDON
19	16			BEDFORD STREET		HALIFAX	CALDERDALE	WEST YORKSHIRE
20	16		FLAT 4	CLAPTON TERRACE		LONDON	HACKNEY	GREATER LONDON
21	18			HIGH STREET		PENRHYNEDDRAETH	GWYNEDD	GWYNEDD
22	19		FLAT 4	ALUMHURST ROAD	WESTBOURNE	BOURNEMOUTH	BOURNEMOUTH, CHRISTCHURCH AND POOLE	BOURNEMOUTH, CHRISTCHURCH AND POOLE
23	2			BISHOPTON ROAD		STOCKTON-ON-TEES	STOCKTON-ON-TEES	STOCKTON-ON-TEES
24	2			WESTERN CLOSE		BRADFORD	BRADFORD	WEST YORKSHIRE
25	2		COMMERCIAL UNIT	BOLD PLACE		LIVERPOOL	LIVERPOOL	MERSEYSIDE
26	2		THE OLD SCHOOL HOUSE	SHRIVENHAM ROAD	HIGHWORTH	SWINDON	SWINDON	SWINDON
27	2		THE TEA ROOMS	NORTH PARADE EXTENSION		SKEGNESS	EAST LINDSEY	LINCOLNSHIRE
28	2 - 4		PARKING SPACE AND STOREROOM 6	TEDWORTH GARDENS		LONDON	KENSINGTON AND CHELSEA	GREATER LONDON
29	2 - 4		PARKING SPACE AND STOREROOM 7	TEDWORTH GARDENS		LONDON	KENSINGTON AND CHELSEA	GREATER LONDON
30	2 - 4		PARKING SPACE AND STOREROOM 8	TEDWORTH GARDENS		LONDON	KENSINGTON AND CHELSEA	GREATER LONDON
31	20		FIRST FLOOR FLAT	HORSTMANN CLOSE		BATH	BATH AND NORTH EAST SOMERSET	BATH AND NORTH EAST SOMERSET
32	200			MILE END ROAD		LONDON	TOWER HAMLETS	GREATER LONDON

PSL 20

16:06

CTRL DIREITO

Task 5 – MySQL Bulk Loader - Configuration

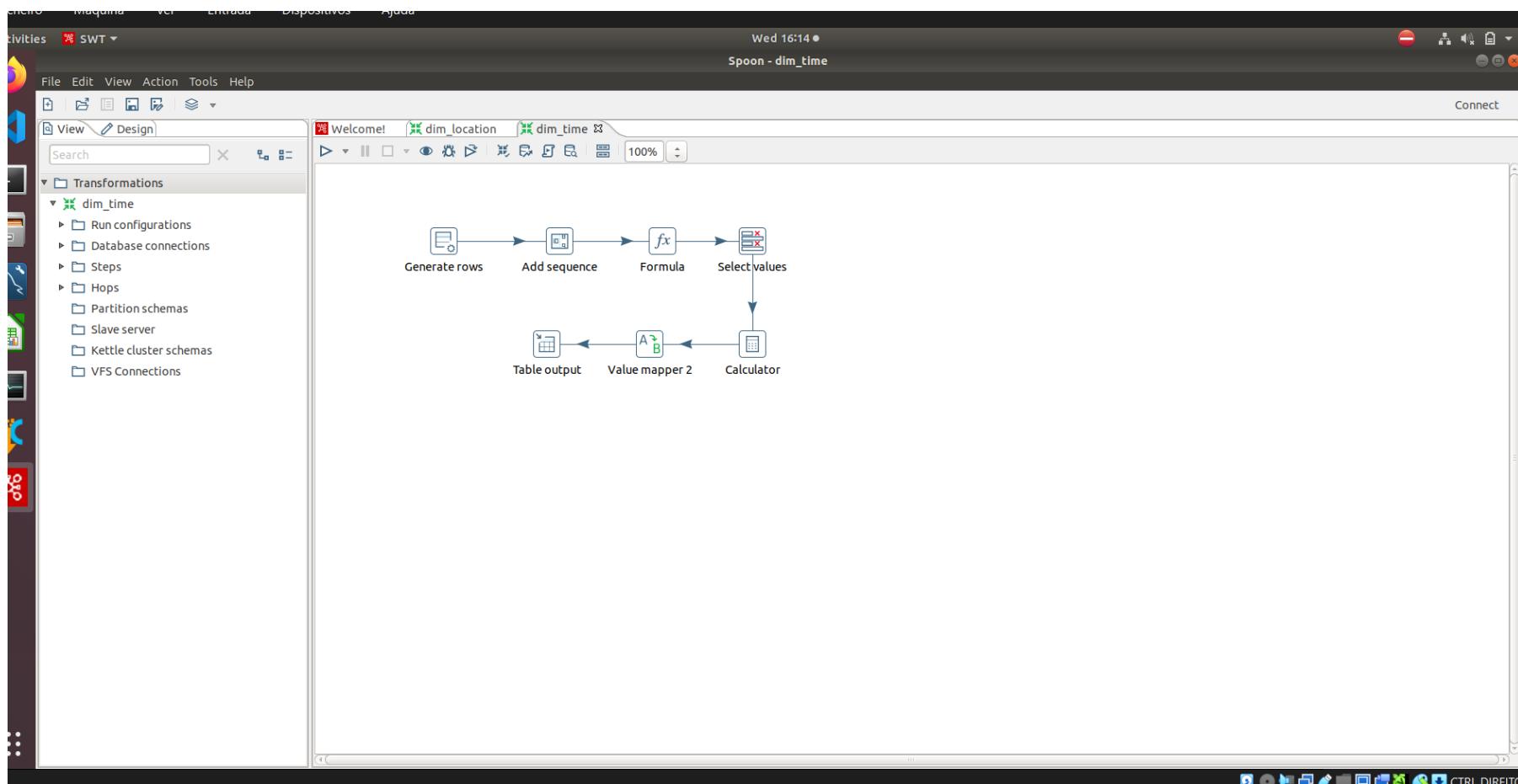


Task 5 – MySQL Bulk Loader - Preview

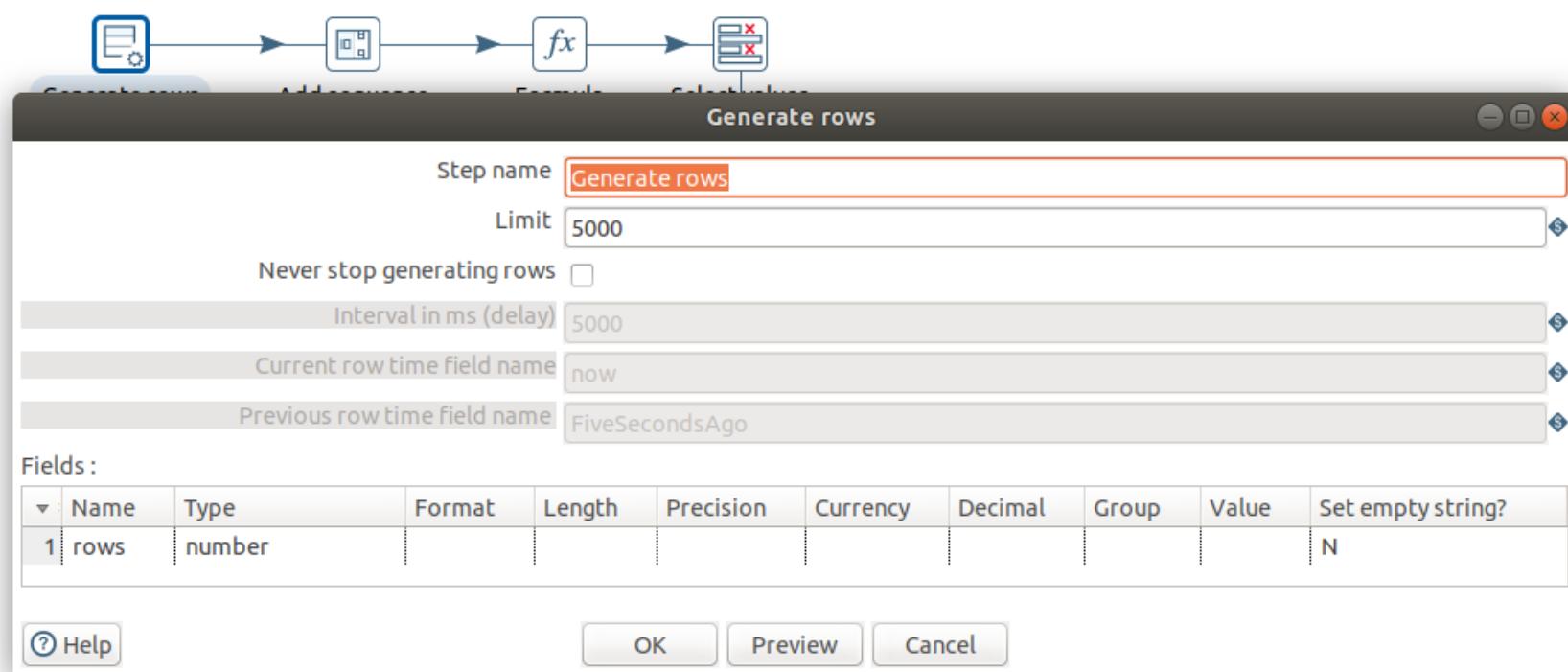
Rows of step: MySQL bulk loader (1000 rows)

row	postcode	paon	saon	street	county	district	locality	town
1	1			AR Y BRYN	PEMBROKESHIRE	PEMBROKESHIRE	LLANDISSILIO	CLYN
2	1			COXS LANE	NORTH NORTHAMPTONSHIRE	NORTH NORTHAMPTONSHIRE	LITTLE CRANSLEY	KETTE
3	1			TAN Y BANNAU	CEREDIGION	CEREDIGION		VSTR
4	1			THE OLD BAKERY	DEVON	SOUTH HAMS	STOKE FLEMING	DART
5	1-3			CORPORATION STREET	GREATER MANCHESTER	TAMESIDE		HYDE
6	10		GARAGE	MILL LANE	LINCOLNSHIRE	LINCOLN		LINCO
7	102		APARTMENT 1	DUKE STREET	MERSEYSIDE	LIVERPOOL		LIVER
8	105 - 106		205	THE ESPLANADE	DORSET	DORSET		WEYN
9	119			ROSE HILL	OXFORDSHIRE	OXFORD		OXFO
10	119A			ST GEORGES ROAD	GLOUCESTERSHIRE	CHELTENHAM		CHELT
11	12			BEACON LANE	MERSEYSIDE	LIVERPOOL		LIVER
12	12			HIGHER BRIMLEY	DEVON	TEIGNBRIDGE		TEIGN
13	12			SOUTH TERRACE	COUNTY DURHAM	COUNTY DURHAM		SEAH
14	12		BASEMENT PARKING SPACE 14	AVENUE ROAD	GREATER LONDON	CAMDEN		LOND
15	12		BASEMENT PARKING SPACE 15	AVENUE ROAD	GREATER LONDON	CAMDEN		LOND
16	12		FLAT 2	LANSDOWN CRESCENT	BATH AND NORTH EAST SOMERSET	BATH AND NORTH EAST SOMERSET		BATH
17	12 - 18		GARAGE 2	HILL STREET	GREATER LONDON	CITY OF WESTMINSTER		LOND
18	150 - 164		UNIT 3	HOMERTON HIGH STREET	GREATER LONDON	HACKNEY		LOND
19	16			BEDFORD STREET	WEST YORKSHIRE	CALDERDALE		HALIF
20	16		FLAT 4	CLAPTON TERRACE	GREATER LONDON	HACKNEY		LOND
21	18			HIGH STREET	GWYNEDD	GWYNEDD		PENR
22	19		FLAT 4	ALUMHURST ROAD	BOURNEMOUTH, CHRISTCHURCH AND POOLE	BOURNEMOUTH, CHRISTCHURCH AND POOLE	WESTBOURNE	BOUR
23	2			BISHOPTON ROAD	STOCKTON-ON-TEES	STOCKTON-ON-TEES		STOC
24	2			WESTERN CLOSE	WEST YORKSHIRE	BRADFORD		BRAD
25	2		COMMERCIAL UNIT	BOLD PLACE	MERSEYSIDE	LIVERPOOL		LIVER
26	2		THE OLD SCHOOL HOUSE	SHRIVENHAM ROAD	SWINDON	SWINDON	HIGHWORTH	SWIN
27	2		THE TEA ROOMS	NORTH PARADE EXTENSION	LINCOLNSHIRE	EAST LINDSEY		SKEGI
28	2 - 4		PARKING SPACE AND STOREROOM 6	TEDWORTH GARDENS	GREATER LONDON	KENSINGTON AND CHELSEA		LOND
29	2 - 4		PARKING SPACE AND STOREROOM 7	TEDWORTH GARDENS	GREATER LONDON	KENSINGTON AND CHELSEA		LOND
30	2 - 4		PARKING SPACE AND STOREROOM 8	TEDWORTH GARDENS	GREATER LONDON	KENSINGTON AND CHELSEA		LOND
31	20		FIRST FLOOR FLAT	HORSTMANN CLOSE	BATH AND NORTH EAST SOMERSET	BATH AND NORTH EAST SOMERSET		BATH
32	200			MILE END ROAD	GREATER LONDON	TOWER HAMLETS		LOND

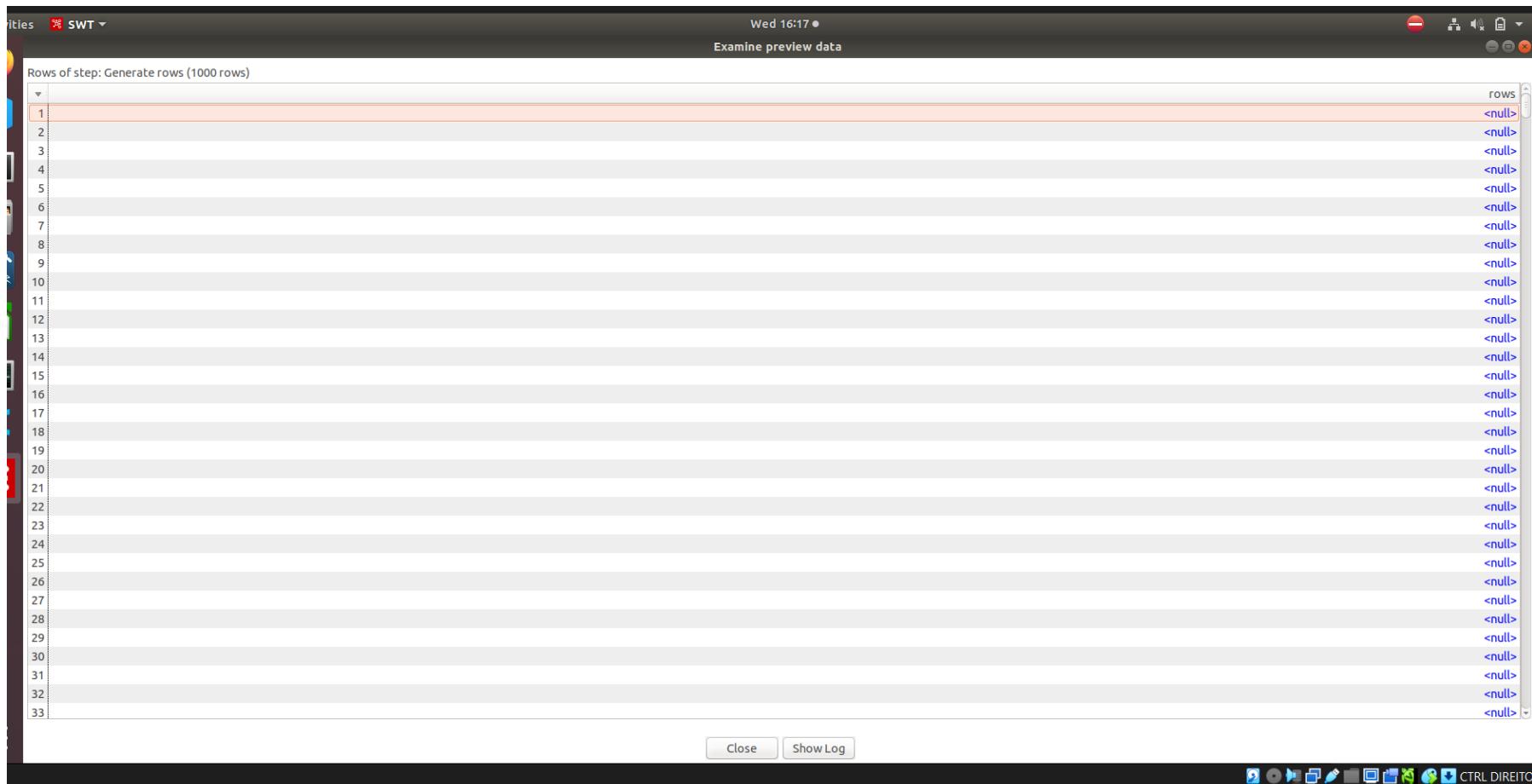
Task 6 – Transformation



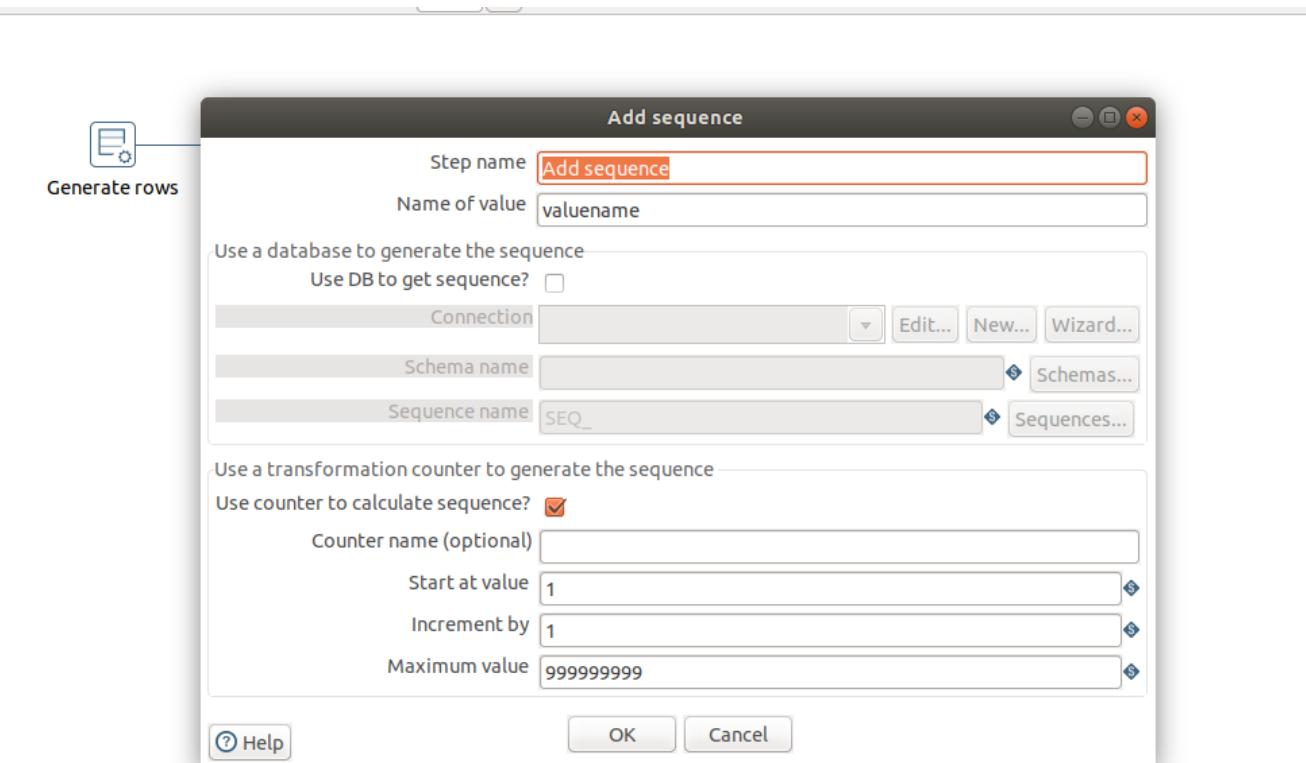
Task 6 – Generate Rows - Configuration



Task 6 – Generate Rows - Preview



Task 6 – Add Sequence - Configuration



Task 6 – Add Sequence - Preview

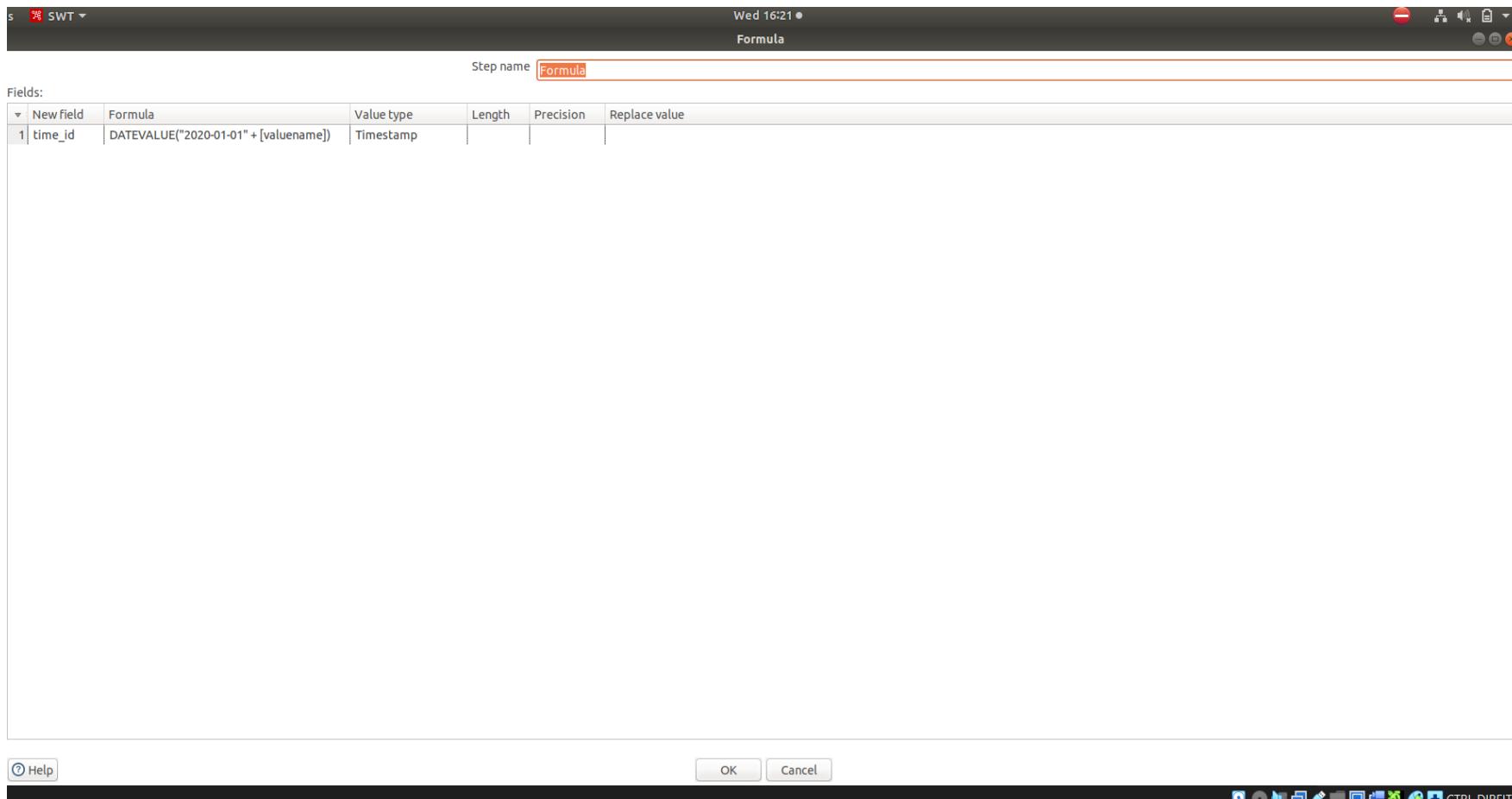
Activities SWT Wed 16:19 ● Examine preview data

Rows of step: Add sequence (1000 rows)

rows	valuename
1 <null>	1
2 <null>	2
3 <null>	3
4 <null>	4
5 <null>	5
6 <null>	6
7 <null>	7
8 <null>	8
9 <null>	9
10 <null>	10
11 <null>	11
12 <null>	12
13 <null>	13
14 <null>	14
15 <null>	15
16 <null>	16
17 <null>	17
18 <null>	18
19 <null>	19
20 <null>	20
21 <null>	21
22 <null>	22
23 <null>	23
24 <null>	24
25 <null>	25
26 <null>	26
27 <null>	27
28 <null>	28
29 <null>	29
30 <null>	30
31 <null>	31
32 <null>	32
33 <null>	33

Close Stop Get more rows

Task 6 – Formula - Configuration



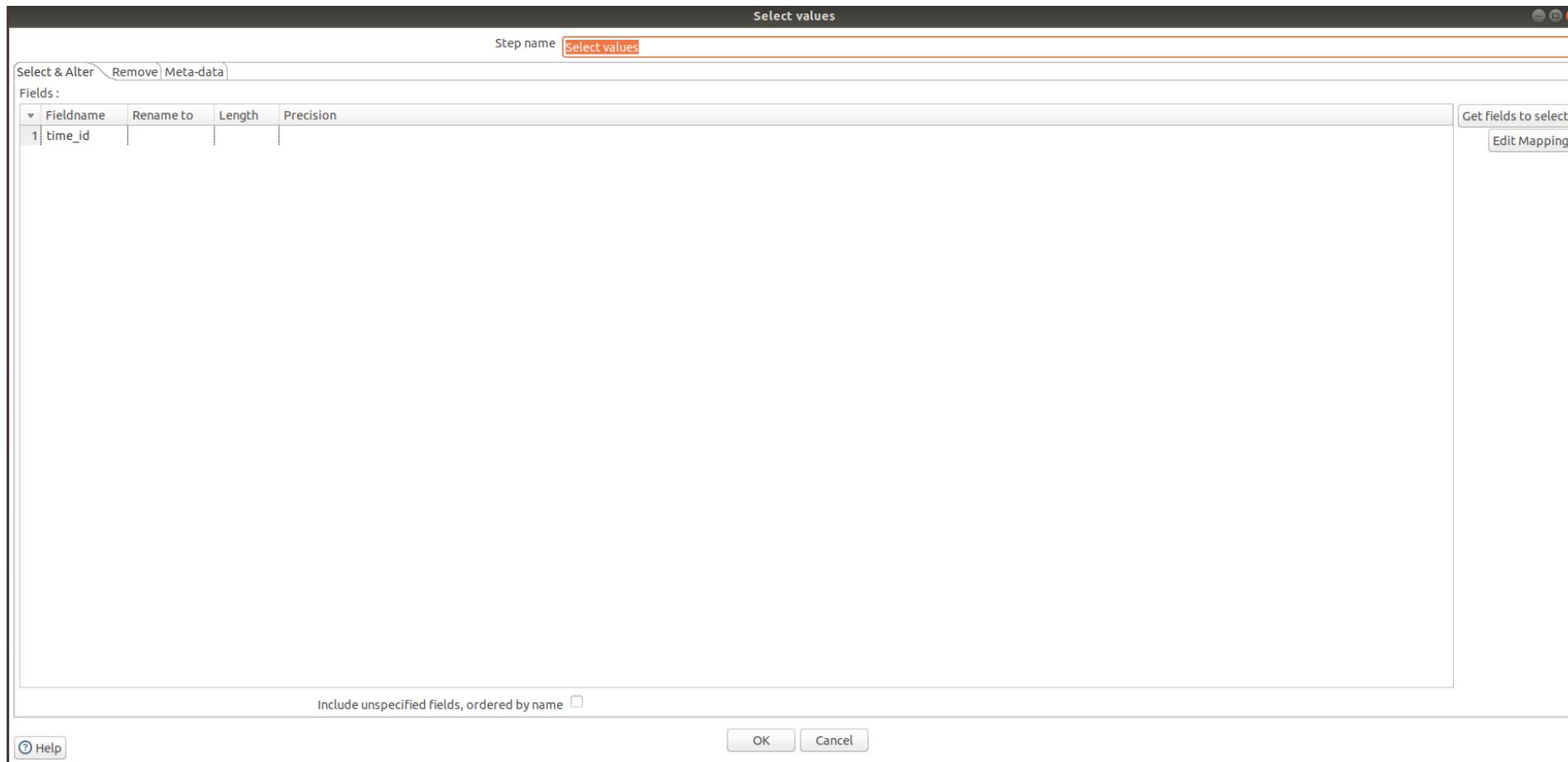
Task 6 – Formula - Preview

Examine preview data

Rows of step: Formula (830 rows)

	rows	valuename	time_id
1	<null>	1	2020/01/02 00:00:00.000000000
2	<null>	2	2020/01/03 00:00:00.000000000
3	<null>	3	2020/01/04 00:00:00.000000000
4	<null>	4	2020/01/05 00:00:00.000000000
5	<null>	5	2020/01/06 00:00:00.000000000
6	<null>	6	2020/01/07 00:00:00.000000000
7	<null>	7	2020/01/08 00:00:00.000000000
8	<null>	8	2020/01/09 00:00:00.000000000
9	<null>	9	2020/01/10 00:00:00.000000000
10	<null>	10	2020/01/11 00:00:00.000000000
11	<null>	11	2020/01/12 00:00:00.000000000
12	<null>	12	2020/01/13 00:00:00.000000000
13	<null>	13	2020/01/14 00:00:00.000000000
14	<null>	14	2020/01/15 00:00:00.000000000
15	<null>	15	2020/01/16 00:00:00.000000000
16	<null>	16	2020/01/17 00:00:00.000000000
17	<null>	17	2020/01/18 00:00:00.000000000
18	<null>	18	2020/01/19 00:00:00.000000000
19	<null>	19	2020/01/20 00:00:00.000000000
20	<null>	20	2020/01/21 00:00:00.000000000
21	<null>	21	2020/01/22 00:00:00.000000000
22	<null>	22	2020/01/23 00:00:00.000000000
23	<null>	23	2020/01/24 00:00:00.000000000
24	<null>	24	2020/01/25 00:00:00.000000000
25	<null>	25	2020/01/26 00:00:00.000000000
26	<null>	26	2020/01/27 00:00:00.000000000
27	<null>	27	2020/01/28 00:00:00.000000000
28	<null>	28	2020/01/29 00:00:00.000000000
29	<null>	29	2020/01/30 00:00:00.000000000
30	<null>	30	2020/01/31 00:00:00.000000000
31	<null>	31	2020/02/01 00:00:00.000000000
32	<null>	32	2020/02/02 00:00:00.000000000
33	<null>	33	2020/02/03 00:00:00.000000000

Task 6 – Select Values - Configuration

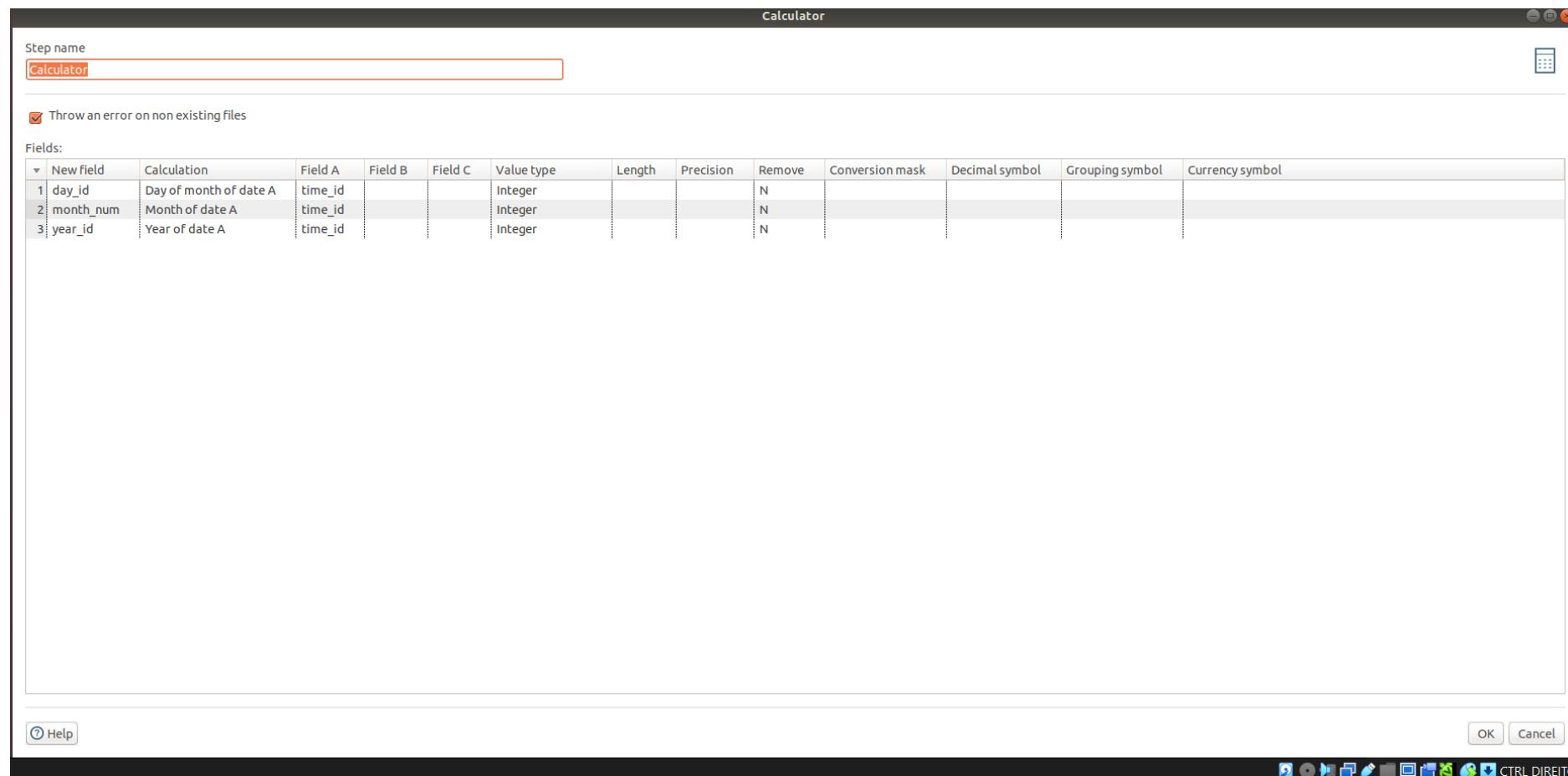


Task 6 – Select Values - Preview

Rows of step: Select values (872 rows)	
	time_id
1	2020/01/02 00:00:00.000000000
2	2020/01/03 00:00:00.000000000
3	2020/01/04 00:00:00.000000000
4	2020/01/05 00:00:00.000000000
5	2020/01/06 00:00:00.000000000
6	2020/01/07 00:00:00.000000000
7	2020/01/08 00:00:00.000000000
8	2020/01/09 00:00:00.000000000
9	2020/01/10 00:00:00.000000000
10	2020/01/11 00:00:00.000000000
11	2020/01/12 00:00:00.000000000
12	2020/01/13 00:00:00.000000000
13	2020/01/14 00:00:00.000000000
14	2020/01/15 00:00:00.000000000
15	2020/01/16 00:00:00.000000000
16	2020/01/17 00:00:00.000000000
17	2020/01/18 00:00:00.000000000
18	2020/01/19 00:00:00.000000000
19	2020/01/20 00:00:00.000000000
20	2020/01/21 00:00:00.000000000
21	2020/01/22 00:00:00.000000000
22	2020/01/23 00:00:00.000000000
23	2020/01/24 00:00:00.000000000
24	2020/01/25 00:00:00.000000000
25	2020/01/26 00:00:00.000000000
26	2020/01/27 00:00:00.000000000
27	2020/01/28 00:00:00.000000000
28	2020/01/29 00:00:00.000000000
29	2020/01/30 00:00:00.000000000
30	2020/01/31 00:00:00.000000000
31	2020/02/01 00:00:00.000000000
32	2020/02/02 00:00:00.000000000
33	2020/02/03 00:00:00.000000000

Close

Task 6 – Calculator - Configuration

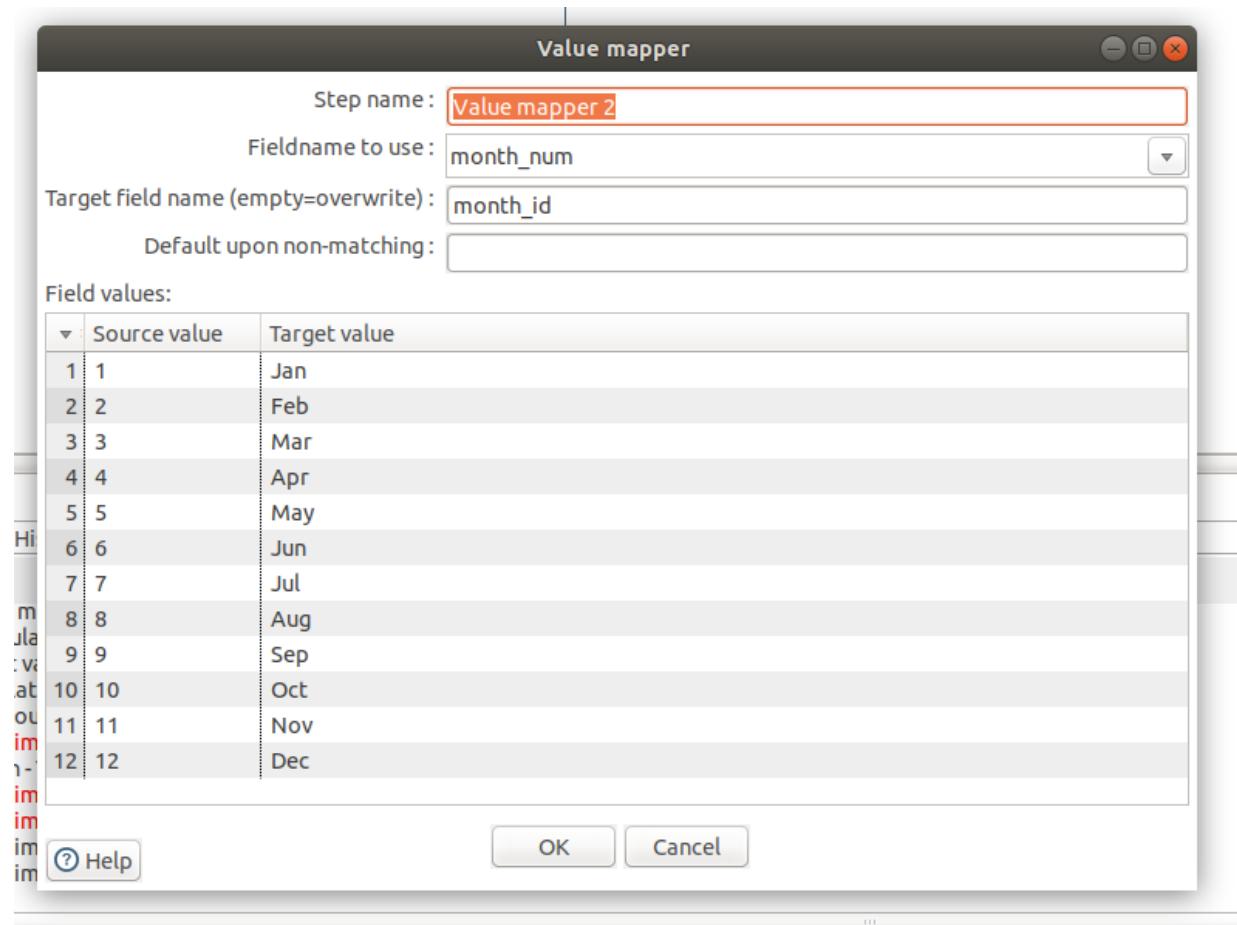


Task 6 – Calculator - Preview

Rows of step: Calculator (933 rows)				
	time_id	day_id	month_num	year_id
1	2020/01/02 00:00:00.000000000	2	1	2020
2	2020/01/03 00:00:00.000000000	3	1	2020
3	2020/01/04 00:00:00.000000000	4	1	2020
4	2020/01/05 00:00:00.000000000	5	1	2020
5	2020/01/06 00:00:00.000000000	6	1	2020
6	2020/01/07 00:00:00.000000000	7	1	2020
7	2020/01/08 00:00:00.000000000	8	1	2020
8	2020/01/09 00:00:00.000000000	9	1	2020
9	2020/01/10 00:00:00.000000000	10	1	2020
10	2020/01/11 00:00:00.000000000	11	1	2020
11	2020/01/12 00:00:00.000000000	12	1	2020
12	2020/01/13 00:00:00.000000000	13	1	2020
13	2020/01/14 00:00:00.000000000	14	1	2020
14	2020/01/15 00:00:00.000000000	15	1	2020
15	2020/01/16 00:00:00.000000000	16	1	2020
16	2020/01/17 00:00:00.000000000	17	1	2020
17	2020/01/18 00:00:00.000000000	18	1	2020
18	2020/01/19 00:00:00.000000000	19	1	2020
19	2020/01/20 00:00:00.000000000	20	1	2020
20	2020/01/21 00:00:00.000000000	21	1	2020
21	2020/01/22 00:00:00.000000000	22	1	2020
22	2020/01/23 00:00:00.000000000	23	1	2020
23	2020/01/24 00:00:00.000000000	24	1	2020
24	2020/01/25 00:00:00.000000000	25	1	2020
25	2020/01/26 00:00:00.000000000	26	1	2020
26	2020/01/27 00:00:00.000000000	27	1	2020
27	2020/01/28 00:00:00.000000000	28	1	2020
28	2020/01/29 00:00:00.000000000	29	1	2020
29	2020/01/30 00:00:00.000000000	30	1	2020
30	2020/01/31 00:00:00.000000000	31	1	2020
31	2020/02/01 00:00:00.000000000	1	2	2020
32	2020/02/02 00:00:00.000000000	2	2	2020
33	2020/02/03 00:00:00.000000000	3	2	2020

Close

Task 6 – Value Mapper - Configuration

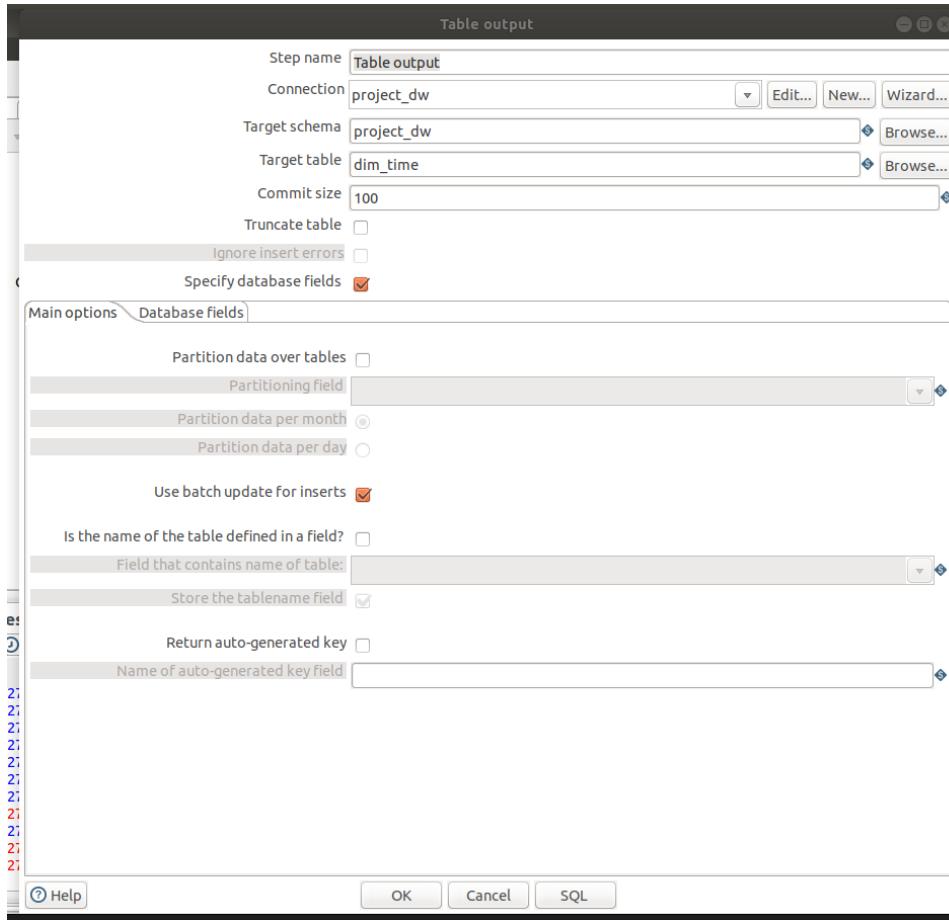


Task 6 – Value Mapper - Preview

Rows of step: Value mapper 2 (1000 rows)				
	time_id	day_id	month_num	year_id
1	2020/01/02 00:00:00.000000000	2	1	2020 Jan
2	2020/01/03 00:00:00.000000000	3	1	2020 Jan
3	2020/01/04 00:00:00.000000000	4	1	2020 Jan
4	2020/01/05 00:00:00.000000000	5	1	2020 Jan
5	2020/01/06 00:00:00.000000000	6	1	2020 Jan
6	2020/01/07 00:00:00.000000000	7	1	2020 Jan
7	2020/01/08 00:00:00.000000000	8	1	2020 Jan
8	2020/01/09 00:00:00.000000000	9	1	2020 Jan
9	2020/01/10 00:00:00.000000000	10	1	2020 Jan
10	2020/01/11 00:00:00.000000000	11	1	2020 Jan
11	2020/01/12 00:00:00.000000000	12	1	2020 Jan
12	2020/01/13 00:00:00.000000000	13	1	2020 Jan
13	2020/01/14 00:00:00.000000000	14	1	2020 Jan
14	2020/01/15 00:00:00.000000000	15	1	2020 Jan
15	2020/01/16 00:00:00.000000000	16	1	2020 Jan
16	2020/01/17 00:00:00.000000000	17	1	2020 Jan
17	2020/01/18 00:00:00.000000000	18	1	2020 Jan
18	2020/01/19 00:00:00.000000000	19	1	2020 Jan
19	2020/01/20 00:00:00.000000000	20	1	2020 Jan
20	2020/01/21 00:00:00.000000000	21	1	2020 Jan
21	2020/01/22 00:00:00.000000000	22	1	2020 Jan
22	2020/01/23 00:00:00.000000000	23	1	2020 Jan
23	2020/01/24 00:00:00.000000000	24	1	2020 Jan
24	2020/01/25 00:00:00.000000000	25	1	2020 Jan
25	2020/01/26 00:00:00.000000000	26	1	2020 Jan
26	2020/01/27 00:00:00.000000000	27	1	2020 Jan
27	2020/01/28 00:00:00.000000000	28	1	2020 Jan
28	2020/01/29 00:00:00.000000000	29	1	2020 Jan
29	2020/01/30 00:00:00.000000000	30	1	2020 Jan
30	2020/01/31 00:00:00.000000000	31	1	2020 Jan
31	2020/02/01 00:00:00.000000000	1	2	2020 Feb
32	2020/02/02 00:00:00.000000000	2	2	2020 Feb
33	2020/02/03 00:00:00.000000000	3	2	2020 Feb

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Task 6 – Table Output - Configuration



Task 6 – Table Output - Preview

Rows of step: Table output (1000 rows)				
	time_id	day_id	month_num	year_id
1	2020/01/02 00:00:00.000000000	2	1	2020 Jan
2	2020/01/03 00:00:00.000000000	3	1	2020 Jan
3	2020/01/04 00:00:00.000000000	4	1	2020 Jan
4	2020/01/05 00:00:00.000000000	5	1	2020 Jan
5	2020/01/06 00:00:00.000000000	6	1	2020 Jan
6	2020/01/07 00:00:00.000000000	7	1	2020 Jan
7	2020/01/08 00:00:00.000000000	8	1	2020 Jan
8	2020/01/09 00:00:00.000000000	9	1	2020 Jan
9	2020/01/10 00:00:00.000000000	10	1	2020 Jan
10	2020/01/11 00:00:00.000000000	11	1	2020 Jan
11	2020/01/12 00:00:00.000000000	12	1	2020 Jan
12	2020/01/13 00:00:00.000000000	13	1	2020 Jan
13	2020/01/14 00:00:00.000000000	14	1	2020 Jan
14	2020/01/15 00:00:00.000000000	15	1	2020 Jan
15	2020/01/16 00:00:00.000000000	16	1	2020 Jan
16	2020/01/17 00:00:00.000000000	17	1	2020 Jan
17	2020/01/18 00:00:00.000000000	18	1	2020 Jan
18	2020/01/19 00:00:00.000000000	19	1	2020 Jan
19	2020/01/20 00:00:00.000000000	20	1	2020 Jan
20	2020/01/21 00:00:00.000000000	21	1	2020 Jan
21	2020/01/22 00:00:00.000000000	22	1	2020 Jan
22	2020/01/23 00:00:00.000000000	23	1	2020 Jan
23	2020/01/24 00:00:00.000000000	24	1	2020 Jan
24	2020/01/25 00:00:00.000000000	25	1	2020 Jan
25	2020/01/26 00:00:00.000000000	26	1	2020 Jan
26	2020/01/27 00:00:00.000000000	27	1	2020 Jan
27	2020/01/28 00:00:00.000000000	28	1	2020 Jan
28	2020/01/29 00:00:00.000000000	29	1	2020 Jan
29	2020/01/30 00:00:00.000000000	30	1	2020 Jan
30	2020/01/31 00:00:00.000000000	31	1	2020 Jan
31	2020/02/01 00:00:00.000000000	1	2	2020 Feb
32	2020/02/02 00:00:00.000000000	2	2	2020 Feb
33	2020/02/03 00:00:00.000000000	3	2	2020 Feb

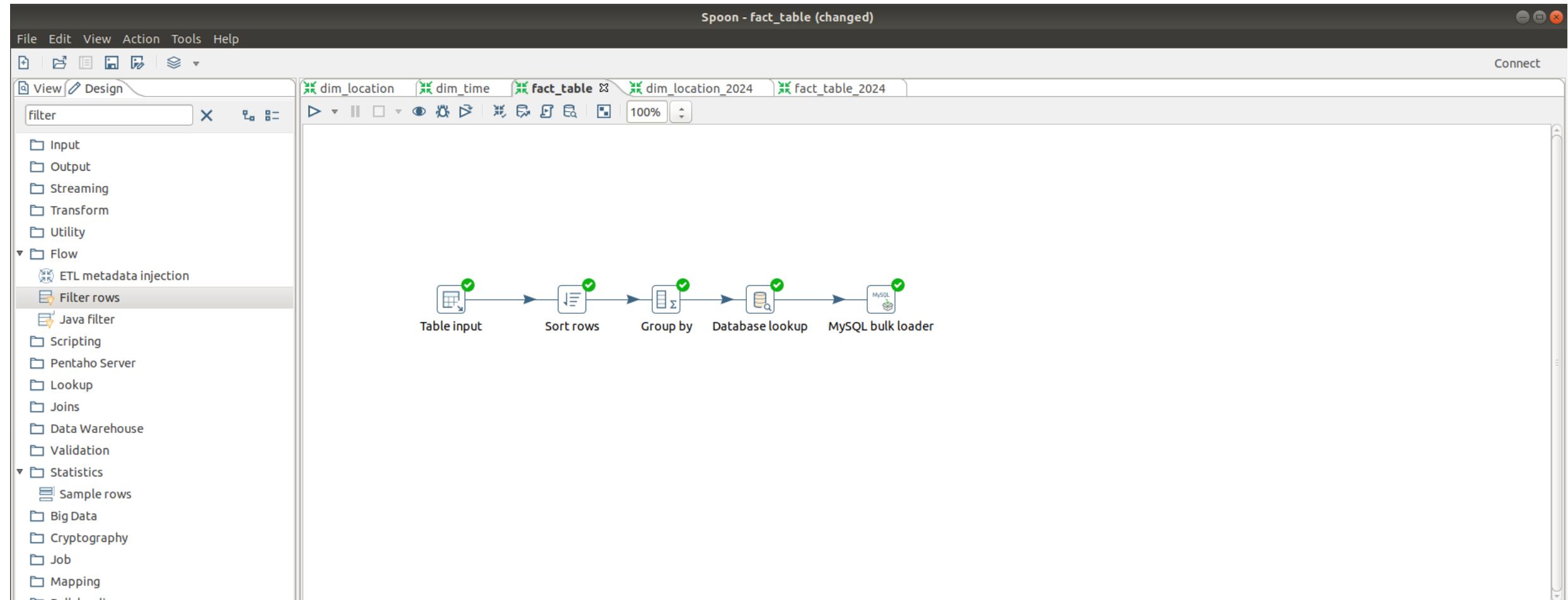
Close

Stop

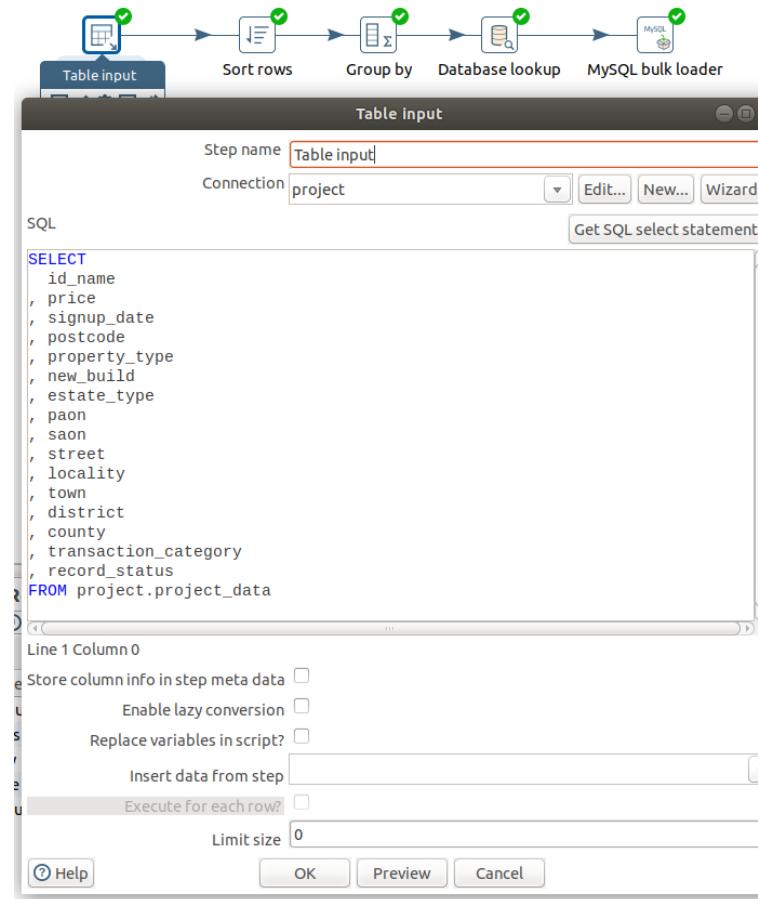
Get more rows



Task 7 – Transformation



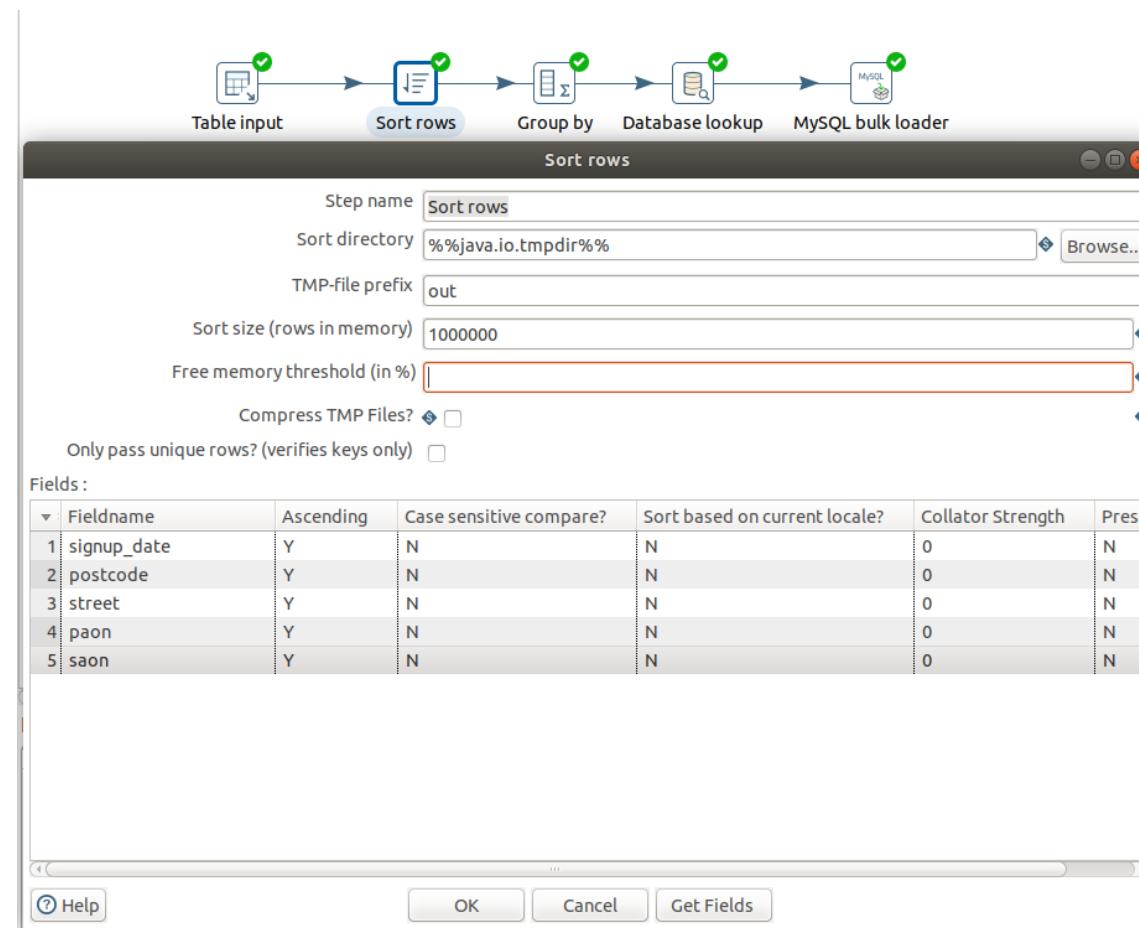
Task 7 – Table Input - Configuration



Task 7 – Table Input - Preview

Rows of step: Table input (1000 rows)													
▼ id_name	price	signup_date	postcode	property_type	new_build	estate_type	paon	saon	street	locality	town	grid	
1 {3DCCB7CA-7FE2-5B9D-E063-4704A8C0331E}	454000	2025/08/01 00:00:00.000	CH7 3JA	D	N	F	IVY HOUSE		KNOWLE LANE		BUCK		
2 {3DCCB7CA-7FE3-5B9D-E063-4704A8C0331E}	250000	2025/06/27 00:00:00.000	LL13 7EJ	D	N	F	2		STRETTON CLOSE		WREX		
3 {3DCCB7CA-7FE4-5B9D-E063-4704A8C0331E}	241000	2025/08/01 00:00:00.000	LD3 0LP	S	N	F	18		PARC Y BERLLAN	BRONLLYS	BRECO		
4 {3DCCB7CA-7FE5-5B9D-E063-4704A8C0331E}	150000	2025/07/18 00:00:00.000	CF33 6AP	S	N	F	29		MILL ROAD	PYLE	BRIDC		
5 {3DCCB7CA-7FE7-5B9D-E063-4704A8C0331E}	85000	2025/07/31 00:00:00.000	SA5 5QQ	T	N	F	36		LARK PLACE	BLAENYMAES	SWAN		
6 {3DCCB7CA-7FE8-5B9D-E063-4704A8C0331E}	367500	2025/07/29 00:00:00.000	SA4 6TB	D	N	F	4		THE CROFT	LOUGHOR	SWAN		
7 {3DCCB7CA-7FE9-5B9D-E063-4704A8C0331E}	155000	2025/07/14 00:00:00.000	CF81 8PH	T	N	F	59		JOHN STREET		BARG		
8 {3DCCB7CA-7FEA-5B9D-E063-4704A8C0331E}	168000	2025/05/09 00:00:00.000	CF31 2BJ	T	N	F	10		HAZEL TREE WAY	BRACKLA	BRIDC		
9 {3DCCB7CA-7FEB-5B9D-E063-4704A8C0331E}	375000	2025/08/08 00:00:00.000	LL36 9YU	D	N	F	NANT			ABERGYNOLWYN	TYWY		
10 {3DCCB7CA-7FEC-5B9D-E063-4704A8C0331E}	216000	2025/07/10 00:00:00.000	CF62 8AF	S	N	F	13		COED Y CAPEL		BARR		
11 {3DCCB7CA-7FED-5B9D-E063-4704A8C0331E}	280000	2025/07/29 00:00:00.000	LL18 4DF	D	N	F	8		GRANGE COURT		RHYL		
12 {3DCCB7CA-7FEE-5B9D-E063-4704A8C0331E}	386621	2025/08/06 00:00:00.000	SA62 6HL	D	N	F	HUNTERS LODGE		CHAPEL ROAD	KEESTON	HAVE		
13 {3DCCB7CA-7FEF-5B9D-E063-4704A8C0331E}	145000	2025/03/07 00:00:00.000	NP18 1LF	F	N	L	14		CAMBRIA CLOSE	CAERLEON	NEWF		
14 {3DCCB7CA-7FF0-5B9D-E063-4704A8C0331E}	275000	2025/03/21 00:00:00.000	LL36 9AW	T	N	F	16		IDRIS VILLAS		TYWY		
15 {3DCCB7CA-7FF1-5B9D-E063-4704A8C0331E}	180000	2025/01/17 00:00:00.000	CF15 9PP	F	N	L	3		BERTHLLWYD	PENTYRCH	CARD		
16 {3DCCB7CA-7FF2-5B9D-E063-4704A8C0331E}	235000	2025/08/21 00:00:00.000	SY24 5DF	S	N	F	69		BRYNCASELL		BOW		
17 {3DCCB7CA-7FF3-5B9D-E063-4704A8C0331E}	138500	2025/08/01 00:00:00.000	NP12 1WH	T	N	F	60		CHARTIST WAY		BLAC		
18 {3DCCB7CA-7FF4-5B9D-E063-4704A8C0331E}	180000	2025/07/30 00:00:00.000	SA13 2AS	S	N	F	11		MORLAIS ROAD		PORT		
19 {3DCCB7CA-7FF7-5B9D-E063-4704A8C0331E}	200000	2025/08/15 00:00:00.000	SY18 6EJ	S	N	F	20		SMITHFIELD STREET		LLAN		
20 {3DCCB7CA-7FF8-5B9D-E063-4704A8C0331E}	130000	2025/08/13 00:00:00.000	LL34 6LH	T	N	F	30		ERASMUS STREET		PENM		
21 {3DCCB7CA-7FF9-5B9D-E063-4704A8C0331E}	212500	2025/08/01 00:00:00.000	LL28 4SU	S	N	F	39		BODNANT ROAD	RHOS ON SEA	COLW		
22 {3DCCB7CA-7FFA-5B9D-E063-4704A8C0331E}	115000	2025/08/26 00:00:00.000	NP4 9NN	T	N	F	22		UPPER HILL STREET	BLAENAVON	PONT		
23 {3DCCB7CA-7FFB-5B9D-E063-4704A8C0331E}	132000	2025/08/07 00:00:00.000	LL57 2YT	T	N	F	5		ORME TERRACE		BANG		
24 {3DCCB7CA-7FFC-5B9D-E063-4704A8C0331E}	170000	2025/08/22 00:00:00.000	LL13 9AY	T	N	F	66		TAN Y DRE		WREX		
25 {3DCCB7CA-7FD-5B9D-E063-4704A8C0331E}	134000	2025/08/14 00:00:00.000	LL29 9UR	S	N	F	18		COED COCH ROAD	OLD COLWYN	COLW		
26 {3DCCB7CA-7FFE-5B9D-E063-4704A8C0331E}	120000	2025/08/18 00:00:00.000	SA73 3EU	T	N	F	124		OBSERVATORY AVENUE	HAKIN	MILFO		
27 {3DCCB7CA-7FFF-5B9D-E063-4704A8C0331E}	365000	2025/07/11 00:00:00.000	LL19 9PG	D	N	F	51		ORME VIEW DRIVE		PREST		
28 {3DCCB7CA-8000-5B9D-E063-4704A8C0331E}	179000	2025/08/13 00:00:00.000	SA41 3QJ	S	N	F	9		MAESYFRENNI		CRYM		
29 {3DCCB7CA-8001-5B9D-E063-4704A8C0331E}	180000	2025/07/01 00:00:00.000	NP20 6FX	S	N	F	6		MARCONI CLOSE		NEWF		
30 {3DCCB7CA-8002-5B9D-E063-4704A8C0331E}	186000	2025/07/29 00:00:00.000	NP4 8DE	S	N	F	1		PARK COURT		PONT		
31 {3DCCB7CA-8003-5B9D-E063-4704A8C0331E}	220000	2025/08/06 00:00:00.000	SA67 8LX	T	N	F	19		SUMMERHILL	STEPASIDE	NARB		
32 {3DCCB7CA-8004-5B9D-E063-4704A8C0331E}	47200	2025/03/28 00:00:00.000	SA11 4NN	T	N	F	19		MAES Y TYRA	RESOLVEN	NEAT		
33 {3DCCB7CA-8005-5B9D-E063-4704A8C0331E}	325500	2025/07/31 00:00:00.000	CF37 3EQ	D	N	F	6		LON HEILYGEN	COED Y CWM	PONT		
34 {3DCCB7CA-8006-5B9D-E063-4704A8C0331E}	123000	2025/07/29 00:00:00.000	LL68 9DF	S	N	F	10		PEN Y CEFN		AMLV		
35 {3DCCB7CA-8009-5B9D-E063-4704A8C0331E}	370000	2025/08/18 00:00:00.000	SA61 2HF	D	N	F	6		OAKWOOD GROVE		HAVE		
36 {3DCCB7CA-8254-5B9D-E063-4704A8C0331E}	395000	2025/08/05 00:00:00.000	NP44 3HE	D	N	F	44		CORY PARK	LLANTARNAM	CWM		
37 {3DCCB7CA-8255-5B9D-E063-4704A8C0331E}	182500	2025/08/20 00:00:00.000	LL18 3DQ	S	N	F	2		THE LAWN		RHYL		
38 {3DCCB7CA-8256-5B9D-E063-4704A8C0331E}	580000	2025/03/25 00:00:00.000	LL11 3LT	D	N	F	BRYN MAELOR		HEOL MAELOR	COEDPOETH	WREX		
39 {3DCCB7CA-8257-5B9D-E063-4704A8C0331E}	230000	2025/08/15 00:00:00.000	CF36 3EH	T	N	F	19		WESTBOURNE PLACE		PORT		

Task 7 – Sort - Configuration



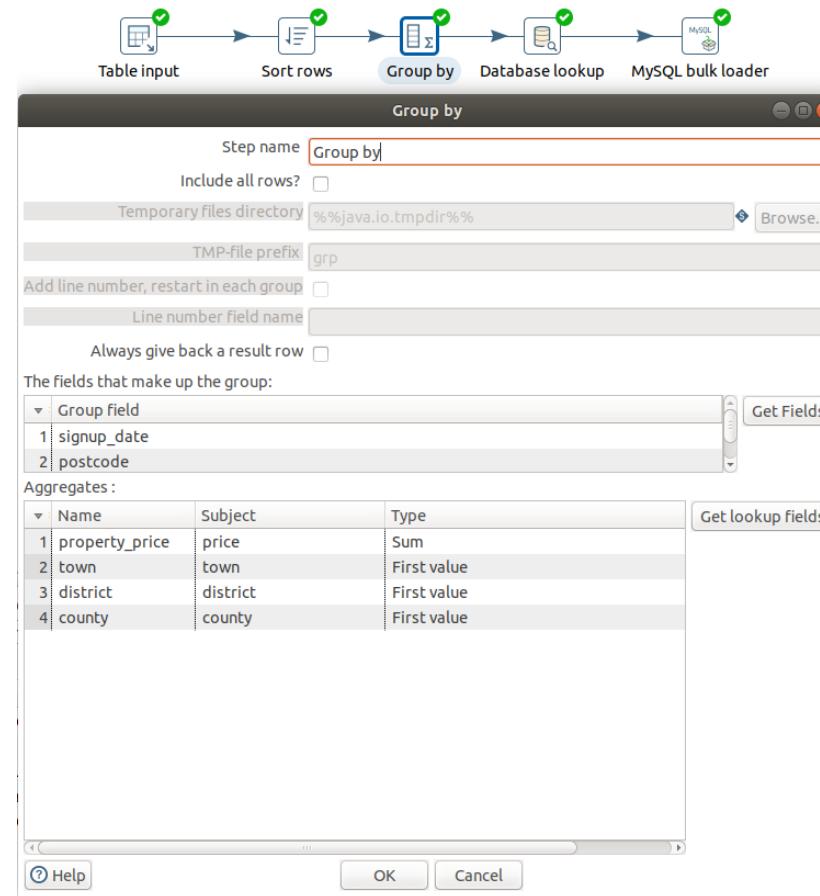
Task 7 – Sort - Preview

Rows of step: Sort rows (1000 rows)

	id_name	price	signup_date	postcode	property_type	new_build	estate_type	paon	saon	street	local
1	[2F7F2B43-D937-E08F-E063-4804A8C05A49]	300000	2025/01/01 00:00:00.000	B30 2PE	O	N	F	45		HAZELWELL ROAD	
2	[38EDC0C2-D85B-0F63-E063-4704A8C00424]	1100000	2025/01/01 00:00:00.000	BN2 1DG	T	N	F	11		PORTLAND PLACE	
3	[3B5CE841-A4EA-EE3A-E063-4804A8C0D6F1]	445000	2025/01/01 00:00:00.000	DE22 2BF	D	Y	F	18		VICAR WOOD WAY	
4	[36A61A94-77C4-DEF2-E063-4704A8C046AE]	192000	2025/01/01 00:00:00.000	DE55 6BA	S	N	F	152		MAIN ROAD	SHIR
5	[2D4D7609-7A45-BDF9-E063-4804A8C0672F]	215000	2025/01/01 00:00:00.000	GU7 2BX	F	N	L	42		CHAPEL FIELDS	
6	[2D4D7609-D686-BDF9-E063-4804A8C0672F]	1000000	2025/01/01 00:00:00.000	M14 6UF	D	N	F	18		BROOK ROAD	
7	[2D4D7609-D656-BDF9-E063-4804A8C0672F]	195000	2025/01/01 00:00:00.000	M14 7JB	T	N	F	7		MARKINGTON STREET	
8	[2D4D7609-D5F6-BDF9-E063-4804A8C0672F]	185000	2025/01/01 00:00:00.000	M14 7WF	T	N	F	8		SEEDLEY STREET	
9	[2D4D7609-D733-BDF9-E063-4804A8C0672F]	135000	2025/01/01 00:00:00.000	M18 7AQ	T	N	F	26		BAKEWELL STREET	
10	[2D4D7609-D665-BDF9-E063-4804A8C0672F]	140000	2025/01/01 00:00:00.000	M18 7AW	T	N	F	10		BECKETT STREET	
11	[2D4D7609-D632-BDF9-E063-4804A8C0672F]	170000	2025/01/01 00:00:00.000	M18 7HT	T	N	F	21		WOODLAND AVENUE	
12	[2D4D7609-DD1F-BDF9-E063-4804A8C0672F]	145000	2025/01/01 00:00:00.000	M18 7QL	T	N	F	145		HEATHCOTE ROAD	
13	[2D4D7609-D729-BDF9-E063-4804A8C0672F]	230000	2025/01/01 00:00:00.000	M18 7WQ	T	N	F	147		HOLMCROFT ROAD	
14	[2D4D7609-E083-BDF9-E063-4804A8C0672F]	210000	2025/01/01 00:00:00.000	M18 8RN	S	N	F	36		HARROP STREET	
15	[2D4D7609-DCE5-BDF9-E063-4804A8C0672F]	130000	2025/01/01 00:00:00.000	M18 8WS	T	N	F	22		EWAN STREET	
16	[2D4D7609-D690-BDF9-E063-4804A8C0672F]	290000	2025/01/01 00:00:00.000	M20 1BB	S	N	F	117		MAULDETH ROAD WEST	WITH
17	[2D4D7609-D644-BDF9-E063-4804A8C0672F]	280000	2025/01/01 00:00:00.000	M20 1BS	S	N	F	513		PRINCESS ROAD	
18	[2D4D7609-D623-BDF9-E063-4804A8C0672F]	280000	2025/01/01 00:00:00.000	M20 1DN	S	N	F	91		DONCASTER AVENUE	
19	[2D4D7609-D677-BDF9-E063-4804A8C0672F]	275000	2025/01/01 00:00:00.000	M20 1EJ	T	N	F	44		GOLBORNE AVENUE	
20	[2D4D7609-D707-CDF9-E063-4804A8C0672F]	280000	2025/01/01 00:00:00.000	M20 1EY	S	N	F	82		WHITCHURCH ROAD	
21	[2D4D7609-D6B9-BDF9-E063-4804A8C0672F]	280000	2025/01/01 00:00:00.000	M20 1GX	T	N	F	220		MAULDETH ROAD WEST	WITH
22	[2D4D7609-D633-BDF9-E063-4804A8C0672F]	280000	2025/01/01 00:00:00.000	M20 1HD	S	N	F	587		PRINCESS ROAD	
23	[2D4D7609-D6C0-BDF9-E063-4804A8C0672F]	280000	2025/01/01 00:00:00.000	M20 1HH	S	N	F	631		PRINCESS ROAD	
24	[2D4D7609-D4C4-BDF9-E063-4804A8C0672F]	280000	2025/01/01 00:00:00.000	M20 4UH	S	N	F	12		PYTHA FOLD ROAD	
25	[3DCCB7CA-82EE-5B9D-E063-4704A8C0331E]	195000	2025/01/01 00:00:00.000	NP4 9QT	S	N	F	103		ELGAM AVENUE	BLAE
26	[38EDC0C2-C196-0F63-E063-4704A8C00424]	128000	2025/01/01 00:00:00.000	PL7 2GS	F	N	L	11		LONG TERRACE CLOSE	
27	[31C68072-9735-FEE3-E063-4804A8C04F37]	335000	2025/01/01 00:00:00.000	RH6 9UL	T	N	F	5		MAIZE CROFT	
28	[2D4D7608-D868-BDF9-E063-4804A8C0672F]	100000	2025/01/01 00:00:00.000	S41 7TG	F	N	L	BRINDLEY HOUSE	FLAT 23	TAPTON LOCK HILL	
29	[2D4D7609-D6BF-BDF9-E063-4804A8C0672F]	300000	2025/01/01 00:00:00.000	SK3 8QA	D	N	F	27		CLOVER AVENUE	
30	[36A61A95-481C-DEF2-E063-4704A8C046AE]	160000	2025/01/01 00:00:00.000	SK5 6PT	T	N	L	28		HOBSON STREET	
31	[2F7F2B43-3145-E08F-E063-4804A8C05A49]	169000	2025/01/01 00:00:00.000	SK8 2NE	T	N	L	1		KELSALL ROAD	
32	[2D4D7608-B8A8-BDF9-E063-4804A8C0672F]	1760000	2025/01/01 00:00:00.000	SW18 5PR	T	N	F	66		COMBEMARTIN ROAD	
33	[3B5CE841-9117-EE3A-E063-4804A8C0D6F1]	515000	2025/01/01 00:00:00.000	TQ1 3EA	S	N	F	THE BIRCHES		SUNBURY HILL	
34	[31C68072-FAB7-FEE3-E063-4804A8C04F37]	77600	2025/01/01 00:00:00.000	WV2 4AR	F	Y	L	TELECOM HOUSE	FLAT 7	CHURCH STREET	
35	[2D4D7608-BFDD-BDF9-E063-4804A8C0672F]	165000	2025/01/02 00:00:00.000		T	N	F	CWRT WILKINSON	3	BRUNSWICK ROAD	
36	[3DCCB7CA-D2AE-5B9D-E063-4704A8C0331E]	10000	2025/01/02 00:00:00.000		O	N	F	BROKES WOOD	PLOT T	POWDERMILL LANE	
37	[38EDC0C3-B83F-0F63-E063-4704A8C00424]	24000	2025/01/02 00:00:00.000		O	N	F	PLOT 22-23		STANSTEAD ROAD	
38	[38EDC0C3-ABFE-0F63-E063-4704A8C00424]	260000	2025/01/02 00:00:00.000	B1 3LW	F	Y	L		APARTMENT 10	LEGGE LANE	
39	[38EDC0C3-1A3B-0F63-E063-4704A8C00424]	260000	2025/01/02 00:00:00.000	B1 3LW	F	Y	L		APARTMENT 14	LEGGE LANE	

[Close](#) [Stop](#) [Get more rows](#)

Task 7 – Group By - Configuration



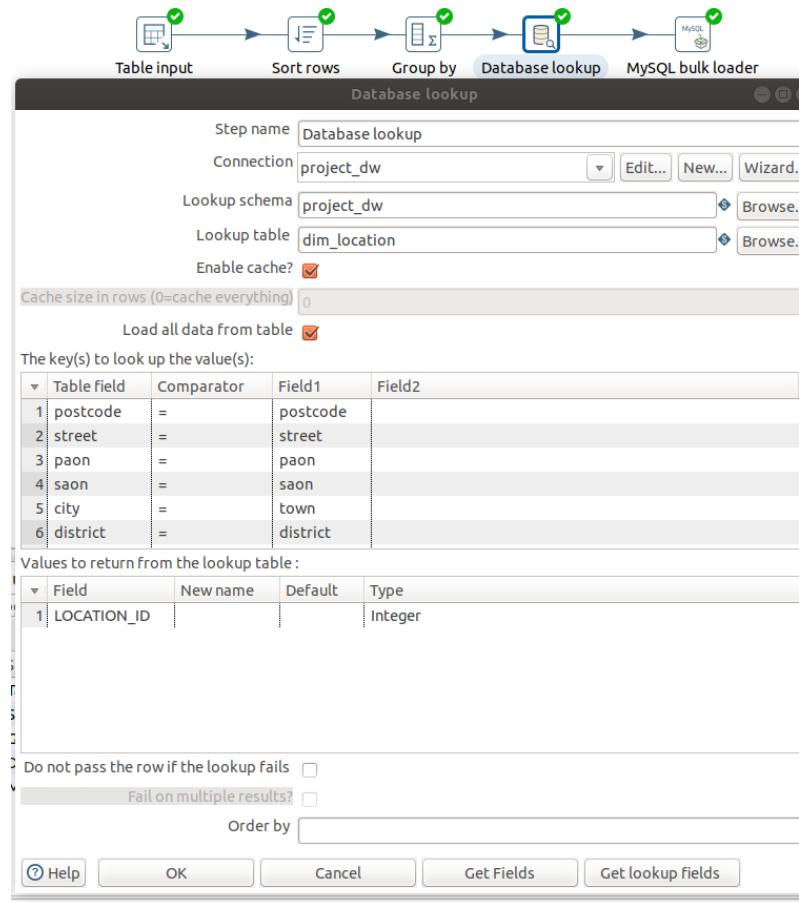
Task 7 – Group By - Preview

Rows of step: Group by (1000 rows)

	signup_date	postcode	street	paon	saon	property_price	town	district	county
1	2025/01/01 00:00:00.000	B30 2PE	HAZELWELL ROAD	45		300000	BIRMINGHAM	BIRMINGHAM	WEST MIDLANDS
2	2025/01/01 00:00:00.000	BN2 1DG	PORTLAND PLACE	11		1100000	BRIGHTON	BRIGHTON AND HOVE	BRIGHTON AND H
3	2025/01/01 00:00:00.000	DE22 2BF	VICAR WOOD WAY	18		445000	DERBY	AMBER VALLEY	DERBYSHIRE
4	2025/01/01 00:00:00.000	DE55 6BA	MAIN ROAD	152		192000	ALFRETON	NORTH EAST DERBYSHIRE	DERBYSHIRE
5	2025/01/01 00:00:00.000	GU7 2BX	CHAPEL FIELDS	42		215000	GODALMING	WAVERLEY	SURREY
6	2025/01/01 00:00:00.000	M14 6UF	BROOK ROAD	18		1000000	MANCHESTER	MANCHESTER	GREATER MANCH
7	2025/01/01 00:00:00.000	M14 7JB	MARKINGTON STREET	7		195000	MANCHESTER	MANCHESTER	GREATER MANCH
8	2025/01/01 00:00:00.000	M14 7WF	SEEDLEY STREET	8		185000	MANCHESTER	MANCHESTER	GREATER MANCH
9	2025/01/01 00:00:00.000	M18 7AQ	BAKEWELL STREET	26		135000	MANCHESTER	MANCHESTER	GREATER MANCH
10	2025/01/01 00:00:00.000	M18 7AW	BECKETT STREET	10		140000	MANCHESTER	MANCHESTER	GREATER MANCH
11	2025/01/01 00:00:00.000	M18 7HT	WOODLAND AVENUE	21		170000	MANCHESTER	MANCHESTER	GREATER MANCH
12	2025/01/01 00:00:00.000	M18 7QL	HEATHCOTE ROAD	145		145000	MANCHESTER	MANCHESTER	GREATER MANCH
13	2025/01/01 00:00:00.000	M18 7WQ	HOLMCROFT ROAD	147		230000	MANCHESTER	MANCHESTER	GREATER MANCH
14	2025/01/01 00:00:00.000	M18 8RN	HARROP STREET	36		210000	MANCHESTER	MANCHESTER	GREATER MANCH
15	2025/01/01 00:00:00.000	M18 8WS	EWAN STREET	22		130000	MANCHESTER	MANCHESTER	GREATER MANCH
16	2025/01/01 00:00:00.000	M20 1BB	MAULDETH ROAD WEST	117		290000	MANCHESTER	MANCHESTER	GREATER MANCH
17	2025/01/01 00:00:00.000	M20 1BS	PRINCESS ROAD	513		280000	MANCHESTER	MANCHESTER	GREATER MANCH
18	2025/01/01 00:00:00.000	M20 1DN	DONCASTER AVENUE	91		280000	MANCHESTER	MANCHESTER	GREATER MANCH
19	2025/01/01 00:00:00.000	M20 1EJ	GOLBORNE AVENUE	44		275000	MANCHESTER	MANCHESTER	GREATER MANCH
20	2025/01/01 00:00:00.000	M20 1EY	WHITCHURCH ROAD	82		280000	MANCHESTER	MANCHESTER	GREATER MANCH
21	2025/01/01 00:00:00.000	M20 1GX	MAULDETH ROAD WEST	220		280000	MANCHESTER	MANCHESTER	GREATER MANCH
22	2025/01/01 00:00:00.000	M20 1HD	PRINCESS ROAD	587		280000	MANCHESTER	MANCHESTER	GREATER MANCH
23	2025/01/01 00:00:00.000	M20 1HH	PRINCESS ROAD	631		280000	MANCHESTER	MANCHESTER	GREATER MANCH
24	2025/01/01 00:00:00.000	M20 4UH	PYTHA FOLD ROAD	12		280000	MANCHESTER	MANCHESTER	GREATER MANCH
25	2025/01/01 00:00:00.000	NP4 9QT	ELGAM AVENUE	103		195000	PONTYPOOL	TORFAEN	TORFAEN
26	2025/01/01 00:00:00.000	PL7 2GS	LONG TERRACE CLOSE	11		128000	PLYMOUTH	CITY OF PLYMOUTH	CITY OF PLYMOUT
27	2025/01/01 00:00:00.000	RH6 9UL	MAIZE CROFT	5		335000	HORLEY	REIGATE AND BANSTEAD	SURREY
28	2025/01/01 00:00:00.000	S41 7GG	TAPTON LOCK HILL	BRINDLEY HOUSE	FLAT 23	100000	CHESTERFIELD	CHESTERFIELD	DERBYSHIRE
29	2025/01/01 00:00:00.000	SK3 8QA	CLOVER AVENUE	27		300000	STOCKPORT	STOCKPORT	GREATER MANCH
30	2025/01/01 00:00:00.000	SK5 6PT	HOBSON STREET	28		160000	STOCKPORT	STOCKPORT	GREATER MANCH
31	2025/01/01 00:00:00.000	SK8 2NE	KELSALL ROAD	1		169000	CHEADLE	STOCKPORT	GREATER MANCH
32	2025/01/01 00:00:00.000	SW18 5PR	COMBEMARTIN ROAD	66		1760000	LONDON	WANDSWORTH	GREATER LONDON
33	2025/01/01 00:00:00.000	TQ1 3EA	SUNBURY HILL	THE BIRCHES		515000	TORQUAY	TORBAY	TORBAY
34	2025/01/01 00:00:00.000	WV2 4AR	CHURCH STREET	TELECOM HOUSE	FLAT 7	77600	WOLVERHAMPTON	WOLVERHAMPTON	WEST MIDLANDS
35	2025/01/02 00:00:00.000		BRUNSWICK ROAD	CWRT WILKINSON	3	165000	BUCKLEY	FLINTSHIRE	FLINTSHIRE
36	2025/01/02 00:00:00.000		POWDERMILL LANE	BROKES WOOD	PLOTT	10000	TUNBRIDGE WELLS	TUNBRIDGE WELLS	KENT
37	2025/01/02 00:00:00.000		STANSTEAD ROAD	PLOT 22-23		24000	CATERHAM	TANDRIDGE	SURREY
38	2025/01/02 00:00:00.000	B1 3LW	LEGGE LANE	22	APARTMENT 10	260000	BIRMINGHAM	BIRMINGHAM	WEST MIDLANDS
39	2025/01/02 00:00:00.000	B1 3LW	LEGGE LANE	22	APARTMENT 14	260000	BIRMINGHAM	BIRMINGHAM	WEST MIDLANDS

[Close](#) [Stop](#) [Get more rows](#)

Task 7 – Database Lookup - Configuration



Task 7 – Database Lookup - Preview

Rows of step: Database lookup (1000 rows)

	signup_date	postcode	street	paon	saon	property_price	town	district	county
1	2025/01/01 00:00:00.000	B30 2PE	HAZELWELL ROAD	45		300000	BIRMINGHAM	BIRMINGHAM	WEST MIDLANDS
2	2025/01/01 00:00:00.000	BN2 1DG	PORTLAND PLACE	11		1100000	BRIGHTON	BRIGHTON AND HOVE	BRIGHTON AND H
3	2025/01/01 00:00:00.000	DE22 2BF	VICAR WOOD WAY	18		445000	DERBY	AMBER VALLEY	DERBYSHIRE
4	2025/01/01 00:00:00.000	DE55 6BA	MAIN ROAD	152		192000	ALFRETON	NORTH EAST DERBYSHIRE	DERBYSHIRE
5	2025/01/01 00:00:00.000	GU7 2BX	CHAPEL FIELDS	42		215000	GODALMING	WAVERLEY	SURREY
6	2025/01/01 00:00:00.000	M14 6UF	BROOK ROAD	18		1000000	MANCHESTER	MANCHESTER	GREATER MANCH
7	2025/01/01 00:00:00.000	M14 7JB	MARKINGTON STREET	7		195000	MANCHESTER	MANCHESTER	GREATER MANCH
8	2025/01/01 00:00:00.000	M14 7WF	SEEDLEY STREET	8		185000	MANCHESTER	MANCHESTER	GREATER MANCH
9	2025/01/01 00:00:00.000	M18 7AQ	BAKEWELL STREET	26		135000	MANCHESTER	MANCHESTER	GREATER MANCH
10	2025/01/01 00:00:00.000	M18 7AW	BECKETT STREET	10		140000	MANCHESTER	MANCHESTER	GREATER MANCH
11	2025/01/01 00:00:00.000	M18 7HT	WOODLAND AVENUE	21		170000	MANCHESTER	MANCHESTER	GREATER MANCH
12	2025/01/01 00:00:00.000	M18 7QL	HEATHCOTE ROAD	145		145000	MANCHESTER	MANCHESTER	GREATER MANCH
13	2025/01/01 00:00:00.000	M18 7WQ	HOLMCROFT ROAD	147		230000	MANCHESTER	MANCHESTER	GREATER MANCH
14	2025/01/01 00:00:00.000	M18 8RN	HARROP STREET	36		210000	MANCHESTER	MANCHESTER	GREATER MANCH
15	2025/01/01 00:00:00.000	M18 8WS	EWAN STREET	22		130000	MANCHESTER	MANCHESTER	GREATER MANCH
16	2025/01/01 00:00:00.000	M20 1BB	MAULDETH ROAD WEST	117		290000	MANCHESTER	MANCHESTER	GREATER MANCH
17	2025/01/01 00:00:00.000	M20 1BS	PRINCESS ROAD	513		280000	MANCHESTER	MANCHESTER	GREATER MANCH
18	2025/01/01 00:00:00.000	M20 1DN	DONCASTER AVENUE	91		280000	MANCHESTER	MANCHESTER	GREATER MANCH
19	2025/01/01 00:00:00.000	M20 1EJ	GOLBORNE AVENUE	44		275000	MANCHESTER	MANCHESTER	GREATER MANCH
20	2025/01/01 00:00:00.000	M20 1EY	WHITCHURCH ROAD	82		280000	MANCHESTER	MANCHESTER	GREATER MANCH
21	2025/01/01 00:00:00.000	M20 1GX	MAULDETH ROAD WEST	220		280000	MANCHESTER	MANCHESTER	GREATER MANCH
22	2025/01/01 00:00:00.000	M20 1HD	PRINCESS ROAD	587		280000	MANCHESTER	MANCHESTER	GREATER MANCH
23	2025/01/01 00:00:00.000	M20 1HH	PRINCESS ROAD	631		280000	MANCHESTER	MANCHESTER	GREATER MANCH
24	2025/01/01 00:00:00.000	M20 4UH	PYTHA FOLD ROAD	12		280000	MANCHESTER	MANCHESTER	GREATER MANCH
25	2025/01/01 00:00:00.000	NP4 9QT	ELGAM AVENUE	103		195000	PONTYPOOL	TORFAEN	TORFAEN
26	2025/01/01 00:00:00.000	PL7 2GS	LONG TERRACE CLOSE	11		128000	PLYMOUTH	CITY OF PLYMOUTH	CITY OF PLYMOUT
27	2025/01/01 00:00:00.000	RH6 9UL	MAIZE CROFT	5		335000	HORLEY	REIGATE AND BANSTEAD	SURREY
28	2025/01/01 00:00:00.000	S41 7GG	TAPTON LOCK HILL	BRINDLEY HOUSE	FLAT 23	100000	CHESTERFIELD	CHESTERFIELD	DERBYSHIRE
29	2025/01/01 00:00:00.000	SK3 8QA	CLOVER AVENUE	27		300000	STOCKPORT	STOCKPORT	GREATER MANCH
30	2025/01/01 00:00:00.000	SK5 6PT	HOBSON STREET	28		160000	STOCKPORT	STOCKPORT	GREATER MANCH
31	2025/01/01 00:00:00.000	SK8 2NE	KELSALL ROAD	1		169000	CHEADLE	STOCKPORT	GREATER MANCH
32	2025/01/01 00:00:00.000	SW18 5PR	COMBEMARTIN ROAD	66		1760000	LONDON	WANDSWORTH	GREATER LONDON

Task 7 – MySQL Bulk Loader - Configuration

The screenshot shows the MySQL Workbench interface with a configuration dialog for a MySQL bulk loader step. The dialog is titled "MySQL bulk loader". Above the dialog, a flowchart shows the data processing pipeline: Table input → Sort rows → Group by → Database lookup → MySQL bulk loader.

MySQL bulk loader configuration:

- Step name: MySQL bulk loader
- Connection: project_dw
- Target schema: project_dw
- Target table: fact_table
- Fifo file: /var/lib/mysql-files/tmp/fifo
- Delimiter: (empty)
- Enclosure: "
- Escape character: \
- Character set: (empty)
- Bulk size (rows) after which we restart the data load: (empty)
- Use replace clause?
- Use ignore clause?
- Local data

Fields to load:

Table field	Stream field	Field format OK
1 TIME_ID	signup_date	Don't change formatting
2 PRICE	property_price	Don't change formatting
3 LOCATION_ID	LOCATION_ID	Don't change formatting

Buttons at the bottom: Help, OK, Cancel, SQL.

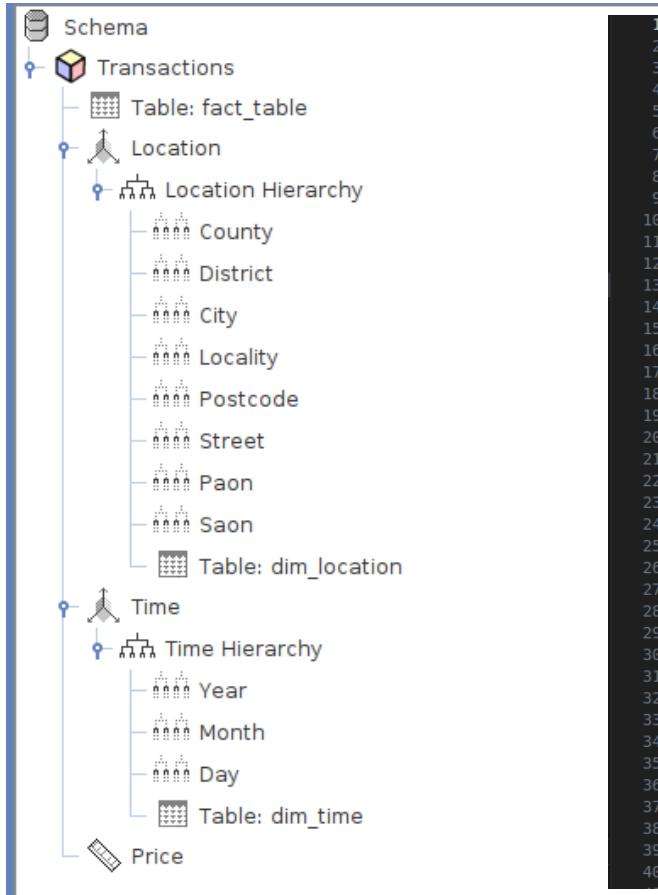
Task 7 – MySQL Bulk Loader - Preview

Rows of step: MySQL bulk loader (56 rows)

	signup_date	postcode	street	paon	saon	property_price	town	district	county	LOCATION
1	2025/01/01 00:00:00.000	B30 2PE	HAZELWELL ROAD	45		300000	BIRMINGHAM	BIRMINGHAM	WEST MIDLANDS	
2	2025/01/01 00:00:00.000	BN2 1DG	PORTLAND PLACE	11		110000	BRIGHTON	BRIGHTON AND HOVE	BRIGHTON AND HOVE	
3	2025/01/01 00:00:00.000	DE22 2BF	VICAR WOOD WAY	18		445000	DERBY	AMBER VALLEY	DERBYSHIRE	
4	2025/01/01 00:00:00.000	DE55 6BA	MAIN ROAD	152		192000	ALFRETON	NORTH EAST DERBYSHIRE	DERBYSHIRE	
5	2025/01/01 00:00:00.000	GU7 2BX	CHAPEL FIELDS	42		215000	GODALMING	WAVERLEY	SURREY	
6	2025/01/01 00:00:00.000	M14 6UF	BROOK ROAD	18		1000000	MANCHESTER	MANCHESTER	GREATER MANCHESTER	
7	2025/01/01 00:00:00.000	M14 7JB	MARKINGTON STREET	7		195000	MANCHESTER	MANCHESTER	GREATER MANCHESTER	
8	2025/01/01 00:00:00.000	M14 7WF	SEEDLEY STREET	8		185000	MANCHESTER	MANCHESTER	GREATER MANCHESTER	
9	2025/01/01 00:00:00.000	M18 7AQ	BAKEWELL STREET	26		135000	MANCHESTER	MANCHESTER	GREATER MANCHESTER	
10	2025/01/01 00:00:00.000	M18 7AW	BECKETT STREET	10		140000	MANCHESTER	MANCHESTER	GREATER MANCHESTER	
11	2025/01/01 00:00:00.000	M18 7HT	WOODLAND AVENUE	21		170000	MANCHESTER	MANCHESTER	GREATER MANCHESTER	
12	2025/01/01 00:00:00.000	M18 7QL	HEATHCOTE ROAD	145		145000	MANCHESTER	MANCHESTER	GREATER MANCHESTER	
13	2025/01/01 00:00:00.000	M18 7WQ	HOLMCROFT ROAD	147		230000	MANCHESTER	MANCHESTER	GREATER MANCHESTER	
14	2025/01/01 00:00:00.000	M18 8RN	HARROP STREET	36		210000	MANCHESTER	MANCHESTER	GREATER MANCHESTER	
15	2025/01/01 00:00:00.000	M18 8WS	EWAN STREET	22		130000	MANCHESTER	MANCHESTER	GREATER MANCHESTER	
16	2025/01/01 00:00:00.000	M20 1BB	MAULDETH ROAD WEST	117		290000	MANCHESTER	MANCHESTER	GREATER MANCHESTER	
17	2025/01/01 00:00:00.000	M20 1BS	PRINCESS ROAD	513		280000	MANCHESTER	MANCHESTER	GREATER MANCHESTER	
18	2025/01/01 00:00:00.000	M20 1DN	DONCASTER AVENUE	91		280000	MANCHESTER	MANCHESTER	GREATER MANCHESTER	
19	2025/01/01 00:00:00.000	M20 1EJ	GOLBORNE AVENUE	44		275000	MANCHESTER	MANCHESTER	GREATER MANCHESTER	
20	2025/01/01 00:00:00.000	M20 1EY	WHITCHURCH ROAD	82		280000	MANCHESTER	MANCHESTER	GREATER MANCHESTER	
21	2025/01/01 00:00:00.000	M20 1GX	MAULDETH ROAD WEST	220		280000	MANCHESTER	MANCHESTER	GREATER MANCHESTER	
22	2025/01/01 00:00:00.000	M20 1HD	PRINCESS ROAD	587		280000	MANCHESTER	MANCHESTER	GREATER MANCHESTER	
23	2025/01/01 00:00:00.000	M20 1HH	PRINCESS ROAD	631		280000	MANCHESTER	MANCHESTER	GREATER MANCHESTER	
24	2025/01/01 00:00:00.000	M20 4UH	PYTHA FOLD ROAD	12		280000	MANCHESTER	MANCHESTER	GREATER MANCHESTER	
25	2025/01/01 00:00:00.000	NP4 9QT	ELGAM AVENUE	103		195000	PONTYPOOL	TORFAEN	TORFAEN	
26	2025/01/01 00:00:00.000	PL7 2GS	LONG TERRACE CLOSE	11		128000	PLYMOUTH	CITY OF PLYMOUTH	CITY OF PLYMOUTH	
27	2025/01/01 00:00:00.000	RH6 9UL	MAIZE CROFT	5		335000	HORLEY	REIGATE AND BANSTEAD	SURREY	
28	2025/01/01 00:00:00.000	S41 7GG	TAPTON LOCK HILL	BRINDLEY HOUSE	FLAT 23	100000	CHESTERFIELD	CHESTERFIELD	DERBYSHIRE	
29	2025/01/01 00:00:00.000	SK3 8QA	CLOVER AVENUE	27		300000	STOCKPORT	STOCKPORT	GREATER MANCHESTER	
30	2025/01/01 00:00:00.000	SK5 6PT	HOBSON STREET	28		160000	STOCKPORT	STOCKPORT	GREATER MANCHESTER	
31	2025/01/01 00:00:00.000	SK8 2NE	KELSALL ROAD	1		169000	CHEADLE	STOCKPORT	GREATER MANCHESTER	
32	2025/01/01 00:00:00.000	SW18 5PR	COMBEMARTIN ROAD	66		1760000	LONDON	WANDSWORTH	GREATER LONDON	

[Close](#)

Task 8 – Cube



```
Schema name="project_dw" You, 2 days ago * task8: possibly correct_cube ...
1 <Cube name="Transactions" visible="true" cache="true" enabled="true">
2   <Table name="fact_table">
3     </Table>
4   <Dimension type="StandardDimension" visible="true" foreignKey="LOCATION_ID" highCardinality="false" name="Location">
5     <Hierarchy name="Location Hierarchy" visible="true" hasAll="true" allMemberName="All Locations" primaryKey="LOCATION_ID">
6       <Table name="dim_location">
7         </Table>
8       <Level name="County" visible="true" column="COUNTY" type="String" uniqueMembers="false" levelType="Regular" hideMemberIf="Never">
9         </Level>
10      <Level name="District" visible="true" column="DISTRICT" type="String" uniqueMembers="false" levelType="Regular" hideMemberIf="Never">
11        </Level>
12      <Level name="City" visible="true" column="CITY" type="String" uniqueMembers="false" levelType="Regular" hideMemberIf="Never">
13        </Level>
14      <Level name="Locality" visible="true" column="LOCALITY" type="String" uniqueMembers="false" levelType="Regular" hideMemberIf="Never">
15        </Level>
16      <Level name="Postcode" visible="true" column="POSTCODE" type="String" uniqueMembers="false" levelType="Regular" hideMemberIf="Never">
17        </Level>
18      <Level name="Street" visible="true" column="STREET" type="String" uniqueMembers="false" levelType="Regular" hideMemberIf="Never">
19        </Level>
20      <Level name="Paon" visible="true" column="PAON" type="String" uniqueMembers="false" levelType="Regular" hideMemberIf="Never">
21        </Level>
22      <Level name="Saon" visible="true" column="SAON" type="String" uniqueMembers="false" levelType="Regular" hideMemberIf="Never">
23        </Level>
24    </Hierarchy>
25  </Dimension>
26  <Dimension type="TimeDimension" visible="true" foreignKey="TIME_ID" highCardinality="false" name="Time">
27    <Hierarchy name="Time Hierarchy" visible="true" hasAll="true" allMemberName="All Years" primaryKey="TIME_ID">
28      <Table name="dim_time">
29        </Table>
30      <Level name="Year" visible="true" column="YEAR_ID" type="Integer" uniqueMembers="false" levelType="TimeYears" hideMemberIf="Never">
31        </Level>
32      <Level name="Month" visible="true" column="MONTH_ID" ordinalColumn="MONTH_NUM" type="String" uniqueMembers="false" levelType="TimeMonths" hideMemberIf="Never">
33        </Level>
34      <Level name="Day" visible="true" column="DAY_ID" type="Integer" uniqueMembers="false" levelType="TimeDays" hideMemberIf="Never">
35        </Level>
36    </Hierarchy>
37  </Dimension>
38  <Measure name="Price" column="PRICE" datatype="Numeric" formatString="#,##.00" aggregator="sum" visible="true">
39  </Measure>
40</Cube>
```

Select End of Line Sequence

Task 9 – Saiku Analytics

Saiku Analytics (2) / localhost:8080/pentaho/Home

File View Tools Help admin

Cubes: Transactions
Measures: Add
Dimensions: Location (Hierachy, All, County, District, City, Locality, Postcode, Street, Paon, Seson)
Time: Time Hierarchy (All, Year, Month, Day)

Measures: Add
Columns: Time Hierarchy (Month)
Rows: Location Hierarchy (County, District)
Filter:

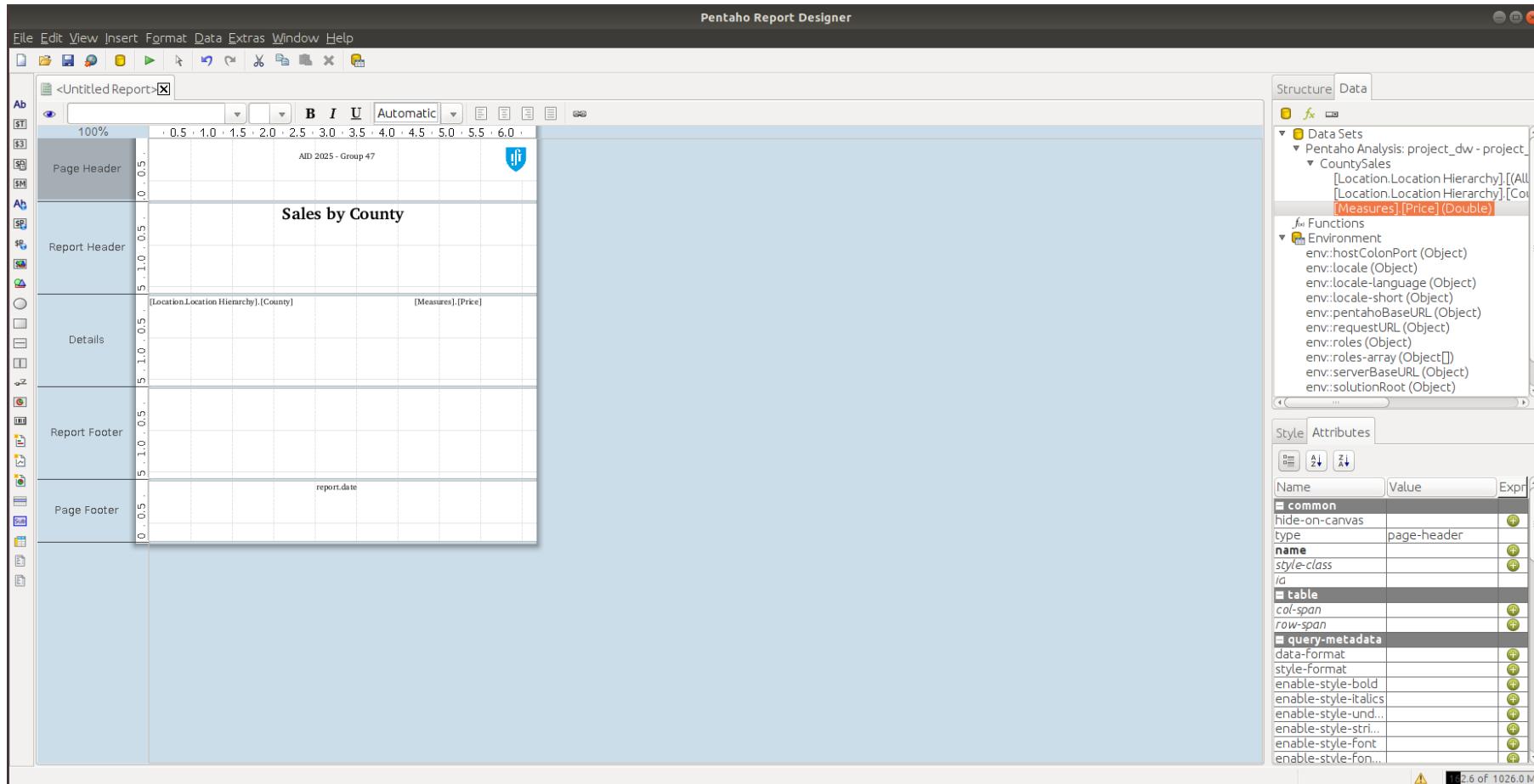
County	District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
GREATER LONDON	BARKING AND DAGENHAM	£40,350,250.00	£44,027,000.00	£81,826,900.00	£13,342,995.00	£23,407,200.00	£16,358,000.00	£33,591,634.00	£9,302,750.00
	BARNET	£168,337,508.00	£180,217,048.00	£361,463,697.00	£64,285,890.00	£118,892,660.00	£109,789,226.00	£114,349,753.00	£68,879,050.00
	BEXLEY	£120,323,800.00	£113,268,446.00	£198,731,914.00	£30,221,835.00	£44,245,400.00	£55,105,050.00	£63,586,155.00	£26,722,745.00
	BRENT	£115,001,478.00	£101,159,215.00	£179,302,836.00	£26,083,950.00	£51,141,231.00	£53,344,476.00	£55,604,479.00	£23,280,125.00
	BROMLEY	£185,888,612.00	£230,253,739.00	£376,457,878.00	£51,687,859.00	£102,305,749.00	£124,217,946.00	£140,388,631.00	£65,121,132.00
	CAMDEN	£263,703,715.00	£160,595,096.00	£251,093,678.00	£78,681,630.00	£79,416,634.00	£102,399,225.00	£81,484,418.00	£41,120,180.00
	CITY OF LONDON	£23,577,395.00	£17,216,300.00	£22,314,999.00	£66,860,000.00	£38,000.00	£3,870,000.00	£5,083,000.00	£2,375,000.00
	CITY OF WESTMINSTER	£456,541,049.00	£233,243,574.00	£496,096,529.00	£127,407,500.00	£161,545,745.00	£210,143,599.00	£72,249,779.00	£64,519,168.00
	CROYDON	£127,773,152.00	£127,898,304.00	£275,127,712.00	£55,103,450.00	£91,701,995.00	£99,874,599.00	£103,458,115.00	£51,211,965.00
	EALING	£156,670,046.00	£156,472,409.00	£232,452,574.00	£48,155,495.00	£82,656,450.00	£64,607,884.00	£101,358,594.00	£47,996,952.00
	ENFIELD	£108,516,156.00	£99,057,990.00	£213,676,222.00	£37,555,495.00	£59,494,116.00	£57,374,545.00	£69,108,380.00	£41,411,392.00
	GREENWICH	£110,654,847.00	£91,609,892.00	£209,915,531.00	£32,565,046.00	£60,103,159.00	£68,929,440.00	£71,344,696.00	£28,359,445.00
	HACKNEY	£117,459,572.00	£116,578,031.00	£228,410,865.00	£29,741,242.00	£51,459,378.00	£73,531,857.00	£75,419,054.00	£33,770,150.00
	HAMMERSMITH AND FULHAM	£194,059,912.00	£150,931,823.00	£240,563,416.00	£67,099,744.00	£72,303,248.00	£72,715,200.00	£100,830,296.00	£50,315,505.00
	HARINGEY	£138,419,271.00	£164,694,230.00	£259,508,471.00	£43,539,220.00	£47,920,883.00	£85,499,601.00	£87,274,948.00	£43,182,070.00
	HARROW	£68,837,906.00	£80,701,251.00	£166,315,717.00	£21,105,450.00	£53,916,295.00	£36,869,600.00	£50,864,133.00	£24,652,810.00
	HAVERING	£121,209,554.00	£144,067,408.00	£231,956,251.00	£29,659,800.00	£61,337,150.00	£64,634,217.00	£89,587,500.00	£39,249,500.00
	HILLINGDON	£98,881,767.00	£103,736,788.00	£218,479,264.00	£24,378,950.00	£58,959,268.00	£71,939,451.00	£54,547,399.00	£35,051,450.00
	HOUNSLOW	£88,455,792.00	£89,985,586.00	£186,778,600.00	£37,318,892.00	£43,344,444.00	£51,693,036.00	£68,479,818.00	£22,905,006.00
	ISLINGTON	£140,690,740.00	£108,513,148.00	£213,577,130.00	£40,024,357.00	£71,401,216.00	£86,286,759.00	£29,576,500.00	
	KENSINGTON AND CHELSEA	£276,687,484.00	£377,574,578.00	£264,160,581.00	£110,968,318.00	£125,850,261.00	£105,673,650.00	£136,680,625.00	£41,751,731.00
	KINGSTON UPON THAMES	£97,344,465.00	£96,059,855.00	£190,452,067.00	£36,532,775.00	£62,874,096.00	£48,545,675.00	£65,914,633.00	£30,538,698.00
	LAMBETH	£155,546,041.00	£164,372,163.00	£332,087,875.00	£36,570,684.00	£91,755,752.00	£91,177,300.00	£114,197,514.00	£71,352,913.00
	LEWISHAM	£154,337,648.00	£161,964,679.00	£246,153,039.00	£39,757,350.00	£68,281,245.00	£80,722,419.00	£96,085,998.00	£41,249,071.00
	MERTON	£133,622,849.00	£180,392,891.00	£251,632,074.00	£42,972,333.00	£98,279,900.00	£60,404,958.00	£102,684,265.00	£35,231,320.00
	NEWHAM	£77,379,352.00	£84,728,416.00	£146,938,172.00	£20,509,791.00	£41,273,700.00	£49,222,166.00	£44,511,600.00	£17,882,000.00
	REDBRIDGE	£95,932,795.00	£89,463,944.00	£191,213,695.00	£25,844,112.00	£56,598,220.00	£47,522,530.00	£87,880,293.00	£36,502,150.00
	RICHMOND UPON THAMES	£209,943,091.00	£176,721,106.00	£271,362,738.00	£57,402,500.00	£94,809,349.00	£93,126,687.00	£107,788,295.00	£65,587,160.00
	SOUTHWARK	£138,575,325.00	£169,088,131.00	£281,894,556.00	£39,352,340.00	£78,700,511.00	£92,522,623.00	£112,716,189.00	£38,551,091.00
	SUTTON	£73,329,629.00	£97,283,415.00	£168,959,867.00	£25,029,416.00	£50,303,400.00	£46,724,204.00	£56,968,492.00	£24,252,830.00
	TOWER HAMLETS	£121,906,735.00	£110,317,908.00	£259,167,178.00	£40,012,473.00	£53,716,475.00	£72,052,200.00	£66,030,086.00	£30,810,283.00
	WALTHAM FOREST	£110,798,378.00	£123,518,762.00	£278,752,461.00	£32,986,010.00	£68,749,855.00	£79,043,551.00	£76,352,255.00	£42,646,445.00
	WANDSWORTH	£261,270,180.00	£290,403,726.00	£473,852,453.00	£90,825,688.00	£161,639,802.00	£129,399,662.00	£181,190,659.00	£78,416,303.00

Task 10 – MDX Query

MDX Query:

```
SELECT  
    NON EMPTY Measures.Price ON COLUMNS,  
    NON EMPTY Filter(Location.County.Members,  
        (Measures.Price > 1000000000)) ON ROWS  
FROM Transactions  
WHERE Time.Year.[2025]
```

Task 10 – Design Mode



Task 10 – Preview Mode

Pentaho Report Designer

<Untitled Report>

AID 2025 - Group 47

Sales by County

County	Sales
BOURNEMOUTH, CHRISTCHURCH AND POOLE	£ 1,119,998,106
BUCKINGHAMSHIRE	£ 1,963,260,491
CAMBRIDGESHIRE	£ 1,793,379,590
CHESHIRE EAST	£ 1,234,694,873
CITY OF BRISTOL	£ 1,236,903,647
CORNWALL	£ 1,384,360,680
DERBYSHIRE	£ 1,488,777,137
DEVON	£ 2,112,613,285
DORSET	£ 1,190,376,708
EAST SUSSEX	£ 1,673,162,267
ESSEX	£ 4,470,521,802
GLOUCESTERSHIRE	£ 1,857,432,175
GREATER LONDON	£ 27,983,788,665
GREATER MANCHESTER	£ 4,652,851,437
HAMPSHIRE	£ 4,136,718,843
HERTFORDSHIRE	£ 4,190,956,419
KENT	£ 4,409,531,034
LANCASHIRE	£ 1,990,726,600
LEICESTERSHIRE	£ 1,619,382,984
LINCOLNSHIRE	£ 1,375,752,242
MERSEYSIDE	£ 2,030,324,692
NORFOLK	£ 2,071,815,901
NORTH YORKSHIRE	£ 1,514,237,533
NOTTINGHAMSHIRE	£ 1,603,235,622
OXFORDSHIRE	£ 2,342,617,005
SOMERSET	£ 1,355,221,899

Wed Oct 22 10:36:18 WEST 2025

Structure Data

Data Sets

- Pentaho Analysis: project_dw - project
- CountySales
- [Location.Location Hierarchy].[All]
- [Location.Location Hierarchy].[Co...]
- Measures.[Price] (Double)

Functions

- env:hostColonPort (Object)
- env:locale (Object)
- env:locale-language (Object)
- env:locale-short (Object)
- env:pentahoBaseUrl (Object)
- env:requestURL (Object)
- env:roles (Object)
- env:roles-array (Object[])
- env:serverBaseUrl (Object)
- env:solutionRoot (Object)

Environment

- env::hostColonPort (Object)
- env::locale (Object)
- env::locale-language (Object)
- env::locale-short (Object)
- env::pentahoBaseUrl (Object)
- env::requestURL (Object)
- env::roles (Object)
- env::roles-array (Object[])
- env::serverBaseUrl (Object)
- env::solutionRoot (Object)

Style Attributes

Name	Value
common	
type	label
value	AID 2025 - Group 47
name	
if-null	
rich-text-type	
style-class	
id	
query-metadata	
data-format	
style-format	
enable-style-bold	
enable-style-italics	
enable-style-und...	
enable-style-stri...	
enable-style-font	
enable-style-fon...	
enable-style-color	

Task 11 – 2024 data

TASK 11

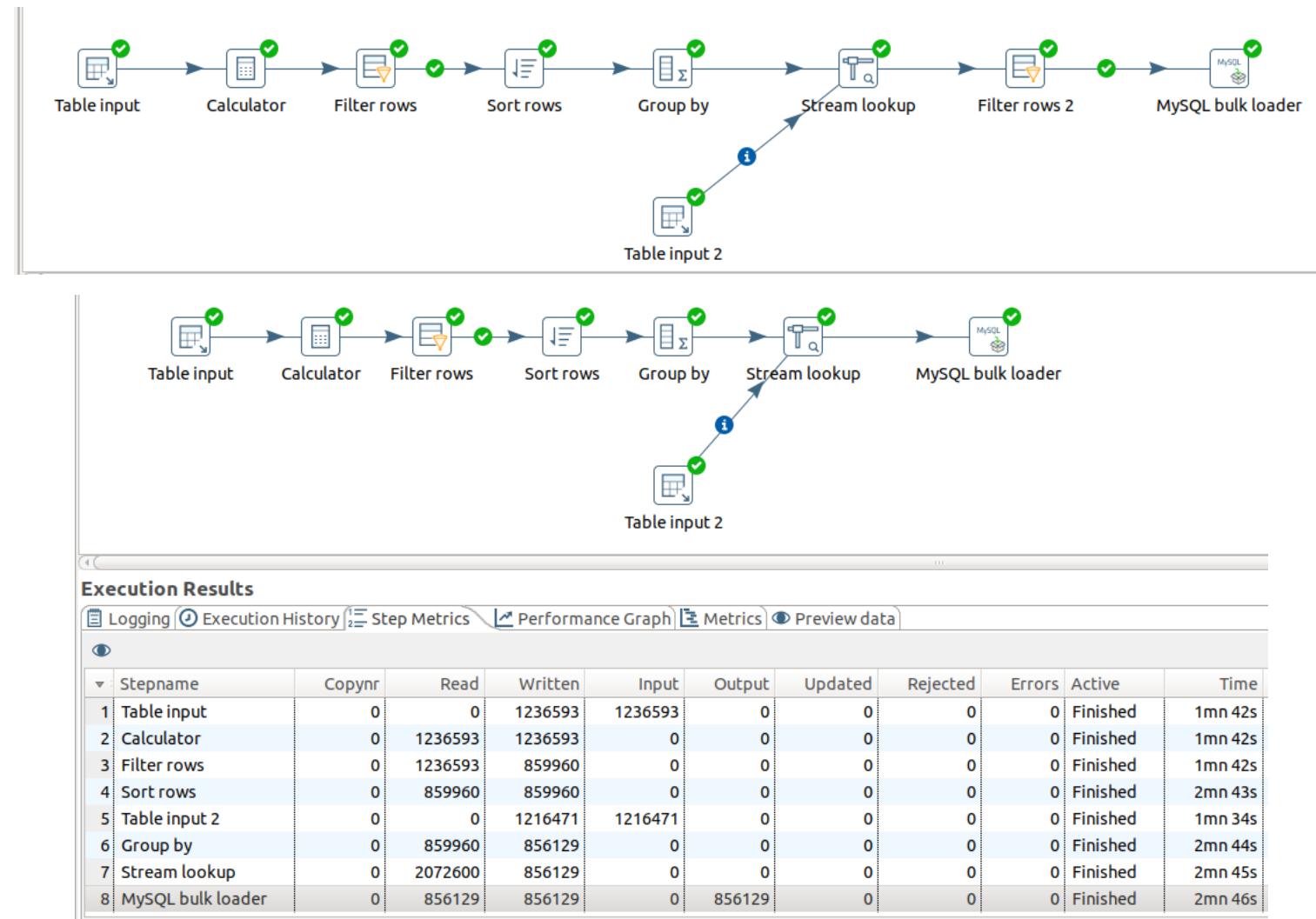
We used the following SQL script to add 2024 data to the table and run it with the command "source task11.sql" inside mySQL.

```
task11 > task11.sql
...
1 SET NAMES utf8;
2
3 USE project;
4
5 load data local infile '../pp-2024.csv'
6 into table project_data
7 fields terminated by ','
8 enclosed by ''
9 lines terminated by '\n';
```

The transformations to populate the **location dimension** (on top) and the **fact table** (on the bottom) needed some small changes, some necessary and some to optimize the time they take. To add elements to dim_location, we first filter the data by year, selecting only items from 2024. After, we have a table input from the already populated dim_location, and stream lookup to check for duplicate locations (Houses with sales in both years).

For the fact table, similar filtering on year was done, and we also use a stream lookup to check for location ids, as using a database lookup step was really slow.

The **main bottleneck** of both transformations is the Table Input step, which took 90% of the total time in the dim_location transformation and 61% of the total time of the fact table transformation.



Task 12 – Percent Change from 2024

MDX Query:

WITH

MEMBER Measures.[Jan 2024] AS Time.[2024].Jan

MEMBER Measures.[Jan 2025] AS Time.[2025].Jan

MEMBER Measures.Change AS Measures.[Jan 2025] - Measures.[Jan 2024]

MEMBER Measures.[Percent Change] AS Measures.Change / Measures.[Jan 2024],

FORMAT_STRING = '#0.00%'

SELECT

{Measures.[Jan 2024]},

Measures.[Jan 2025],

Measures.[Percent Change]} ON COLUMNS,

Location.[GREATER LONDON].Children ON ROWS

FROM [Transactions]

The screenshot shows the Saiku Analytics interface with two tabs: 'Saiku Analytics' and 'Saiku Analytics (2)'. The 'Saiku Analytics (2)' tab is active, displaying an MDX query and its results.

MDX Query:

```
1 WITH
2 MEMBER Measures.[Jan 2024] AS Time.[2024].Jan
3 MEMBER Measures.[Jan 2025] AS Time.[2025].Jan
4 MEMBER Measures.Change AS Measures.[Jan 2025] - Measures.[Jan 2024]
5 MEMBER Measures.[Percent Change] AS Measures.Change / Measures.[Jan 2024],
6 FORMAT_STRING = '#0.00%'
7 SELECT
8 {Measures.[Jan 2024],
9 Measures.[Jan 2025],
10 Measures.[Percent Change]} ON COLUMNS,
11 Location.[GREATER LONDON].Children ON ROWS
12 FROM Transactions
```

Dimensions:

- Location
 - Location Hierarchy
 - (All)
 - County
 - District
 - City
 - Locality
 - Postcode
 - Street
 - Paon
 - Saon
 - Time
 - Time Hierarchy
 - (All)
 - Year
 - Month
 - Day

Results:

District	Jan 2024	Jan 2025	Percent Change
BARKING AND DAGENHAM	51,833,813	40,350,250	-22.15%
BARNET	252,569,704	168,337,508	-33.35%
BEXLEY	71,995,275	120,323,800	67.13%
BRENT	124,910,318	115,001,478	-7.93%
BROMLEY	196,286,211	185,888,612	-5.30%
CAMDEN	238,919,345	263,703,715	10.37%
CITY OF LONDON	46,701,926	123,577,395	164.61%
CITY OF WESTMINSTER	1,167,626,271	456,541,049	-60.90%
CROYDON	158,634,001	127,773,152	-19.45%
EALING	141,614,160	156,670,046	10.63%
ENFIELD	94,341,750	108,516,156	15.02%
GREENWICH	106,634,047	110,654,647	3.77%
HACKNEY	153,115,525	117,459,572	-23.29%
HAMMERSMITH AND FULHAM	192,230,147	194,059,912	0.95%
HARINGEY	115,857,361	138,419,271	19.47%
HARROW	80,570,941	68,837,906	-14.56%
HAVERING	126,346,605	121,209,554	-4.07%
HILLINGDON	142,340,045	98,881,767	-30.53%
HOUNSLOW	130,145,326	88,455,792	-32.03%
ISLINGTON	130,360,009	140,690,740	7.92%
KENSINGTON AND CHELSEA	372,660,588	276,687,484	-25.75%
Kingston upon Thames	87,808,058	97,344,465	10.86%
LAMBETH	165,602,764	155,546,041	-6.07%
LEWISHAM	104,804,739	154,337,648	47.26%
MERTON	126,187,791	133,622,849	5.89%
NEWHAM	95,325,166	77,379,352	-18.83%
REDBRIDGE	98,022,487	95,932,795	-2.13%