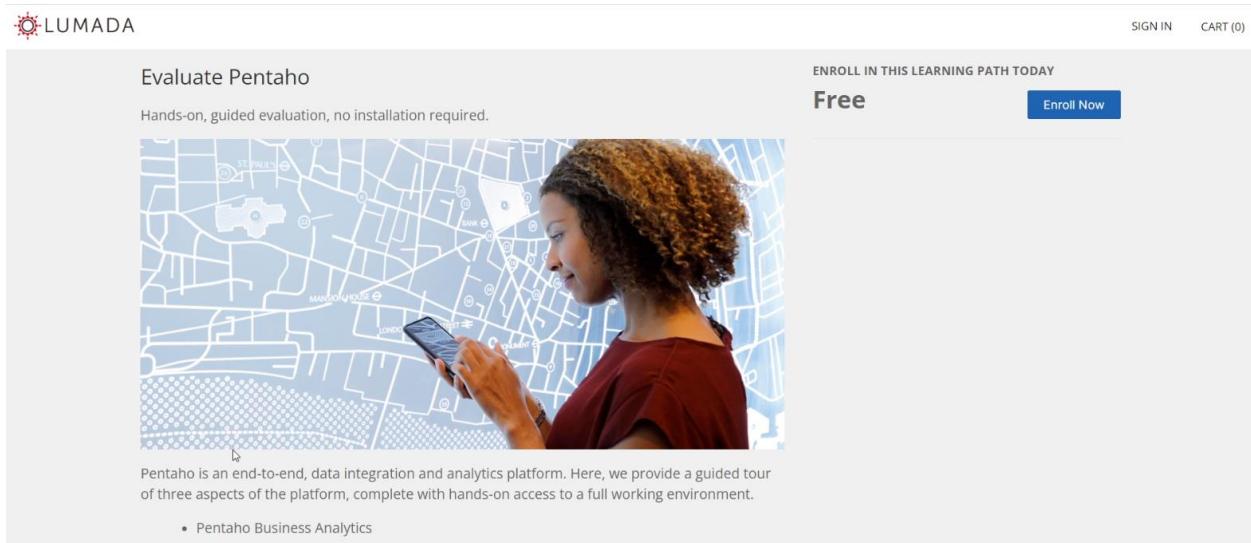


Nama : Dolok Malau

NIM : 191402114

Try Hands On Experience (Virtual Machine)



Evaluate Pentaho

Hands-on, guided evaluation, no installation required.

ENROLL IN THIS LEARNING PATH TODAY

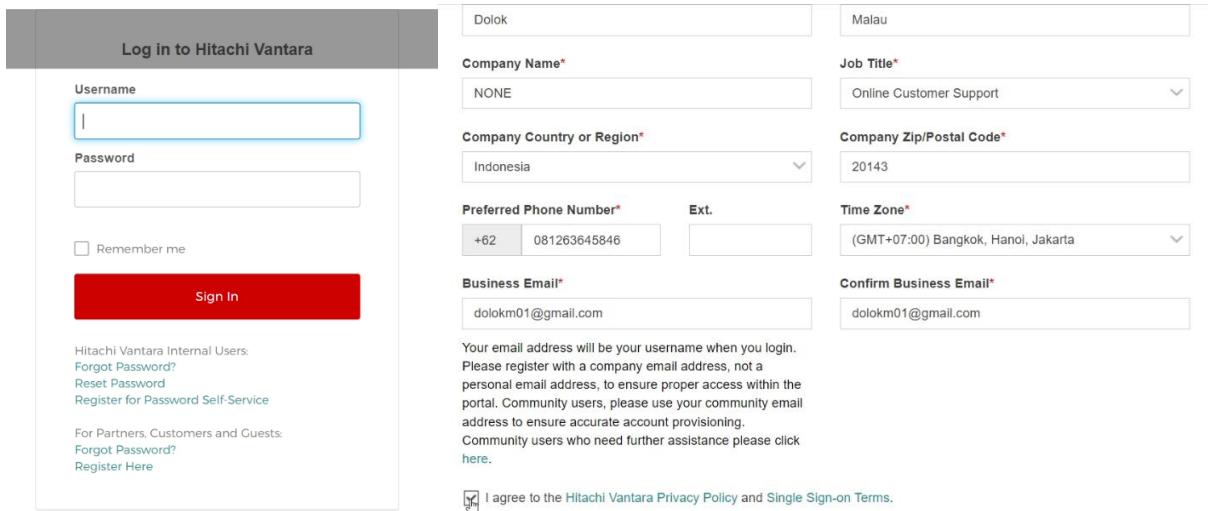
Free

Enroll Now

Pentaho is an end-to-end, data integration and analytics platform. Here, we provide a guided tour of three aspects of the platform, complete with hands-on access to a full working environment.

- Pentaho Business Analytics

1. Masuk kehalaman Hands On Experience



Log in to Hitachi Vantara

Username

Password

Remember me

Sign In

Hitachi Vantara Internal Users:
[Forgot Password?](#)
[Reset Password](#)
[Register for Password Self-Service](#)

For Partners, Customers and Guests:
[Forgot Password?](#)
[Register Here](#)

Your email address will be your username when you login.
Please register with a company email address, not a personal email address, to ensure proper access within the portal. Community users, please use your community email address to ensure accurate account provisioning.
Community users who need further assistance please click [here](#).

I agree to the Hitachi Vantara Privacy Policy and Single Sign-on Terms.

Malau

Company Name* NONE

Job Title* Online Customer Support

Company Country or Region* Indonesia

Company Zip/Postal Code* 20143

Preferred Phone Number* +62 081263645846 Ext.

Time Zone* (GMT+07:00) Bangkok, Hanoi, Jakarta

Business Email* dolokm01@gmail.com

Confirm Business Email* dolokm01@gmail.com

2. Kemudian Register/Login



Set Password

Your password should contain at least one lowercase character, one uppercase character, one numeric character (0-9) and one special character (e.g !@#\$%^&*). Your password should also not contain a part of your username, first name or last name and should not be your last three most recently used passwords.

New Password

.....

Confirm Password

.....

Submit



3. Jika sudah register, akan ada email konfirmasi, lalu setelah itu kita diminta untuk membuat password sesuai dengan ketentuan yang ada.

The screenshot shows a section of the Lumada website. At the top, there's a navigation bar with a sun icon, the word 'LUMADA', 'SIGN IN', and 'CART (0)'. Below the navigation, there's a promotional banner for a 'Evaluate Pentaho' learning path. The banner features a woman looking at her phone, overlaid on a map of London. The text 'Evaluate Pentaho' is at the top left, followed by 'Hands-on, guided evaluation, no installation required.' To the right, there's a 'ENROLL IN THIS LEARNING PATH TODAY' button, a 'Free' badge, and a 'Enroll Now' button. Below the banner, there's a brief description of Pentaho and a bullet point: '• Pentaho Business Analytics'.

Evaluate Pentaho

Hands-on, guided evaluation, no installation required.

ENROLL IN THIS LEARNING PATH TODAY

Free

Enroll Now

Pentaho is an end-to-end, data integration and analytics platform. Here, we provide a guided tour of three aspects of the platform, complete with hands-on access to a full working environment.

- Pentaho Business Analytics

4. Kemudian klik **Enroll Now**

[View Details](#)



ELECTIVE

Pentaho Data Integration: Evaluation (PDI1028S)

Self-Paced Course with Lab

(60 mins) Self-paced, interactive online training with virtual lab environment for hands-on practice

[View Details](#)

ELECTIVE

PDI Evaluation: Metadata Injection (PDI1030S)

Self-Paced Course with Lab

(60 mins) Self-paced, interactive online training with virtual lab environment for hands-on practice

[View Details](#)

5. Klik **View Details** pada bagian “Pentaho Data Integration: Evaluation (PDI1028S)”

LUMADA

MY DASHBOARD

Pentaho Data Integration: Evaluation (PDI1028S)

(60 mins) Self-paced, interactive online training with virtual lab environment for hands-on practice



[Start Self-Paced Course with Lab](#)

6. Kemudian klik tombol “Start Self-Paced Course with Lab”

Pentaho Data Integration: Evaluation (PDI1028S)

LESSONS

01. COURSE

▼ PDI: Evaluation

- Introduction
- **LAB_PDI1028S**
- PDI: Evaluation

Completion and Survey

NOTES

SUPPORT SIGN OUT

Course / PDI: Evaluation

Use the course content and lab to get hands-on experience with PDI.

Important information for users

- To access your lab's console, click the **Launch** button.
- The lab will launch in a new browser tab or window. You can switch between the course content and the lab.
- After you launch the lab for the first time, it may take a few moments to load.
- Need help? Send us an email.

Status: ● Ready to provision

Launch

7. Pada bagian kiri, klik **Lab_PDI1028S** dan kemudian klik **Launch**.



Use the course content and lab to get hands-on experience.

Important information for using the lab

- To access your lab's console, click the **Launch** button, wait up to **5 minutes** for it to be ready, then click **Open Lab**.
- The lab will launch in a new browser tab. Return to the original tab to view the course content and use the lab tab to interact with the lab.
- After you launch the lab for the first time, it will be available for **7 days**.
- Need help? Send us an email.

The environment is being launched. Please wait. (Last updated: 10/08/2022 09:14:35 EDT)



8. Silahkan ditunggu sampai Virtual Machine terbuka.

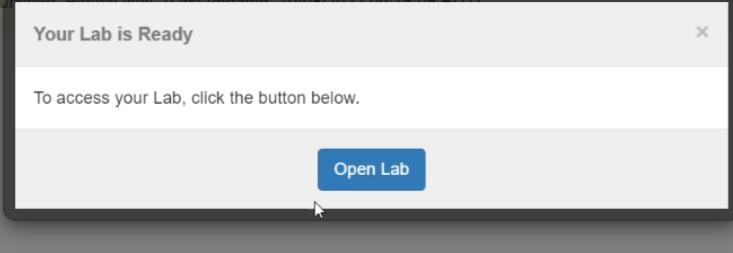


Use the course content and lab to get hands-on experience.

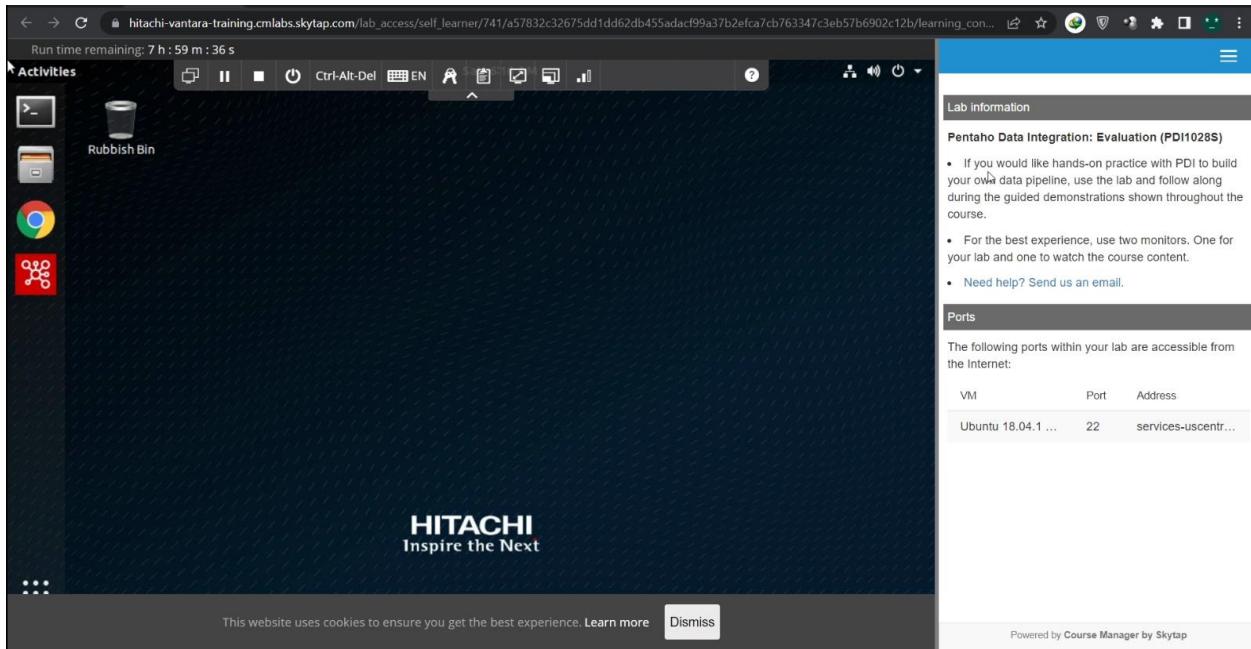
Important information for using the lab

- To access your lab's console, click the **Launch** button, wait up to **5 minutes** for it to be ready, then click **Open Lab**.
- The lab will launch in a new browser tab. Return to the original tab to view the course content and use the lab tab to interact with the lab.
- After you launch the lab for the first time, it will be available for **7 days**.
- Need help? Send us an email.

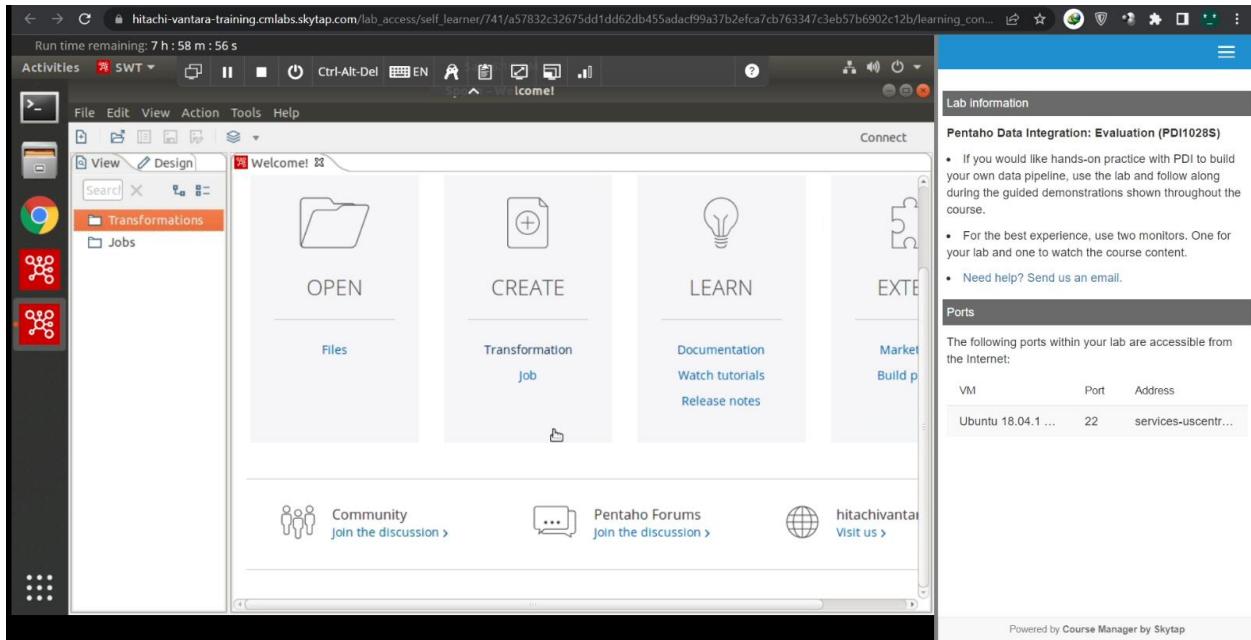
The environment is being launched. Please wait. (Last updated: 10/08/2022 09:15:05 EDT)



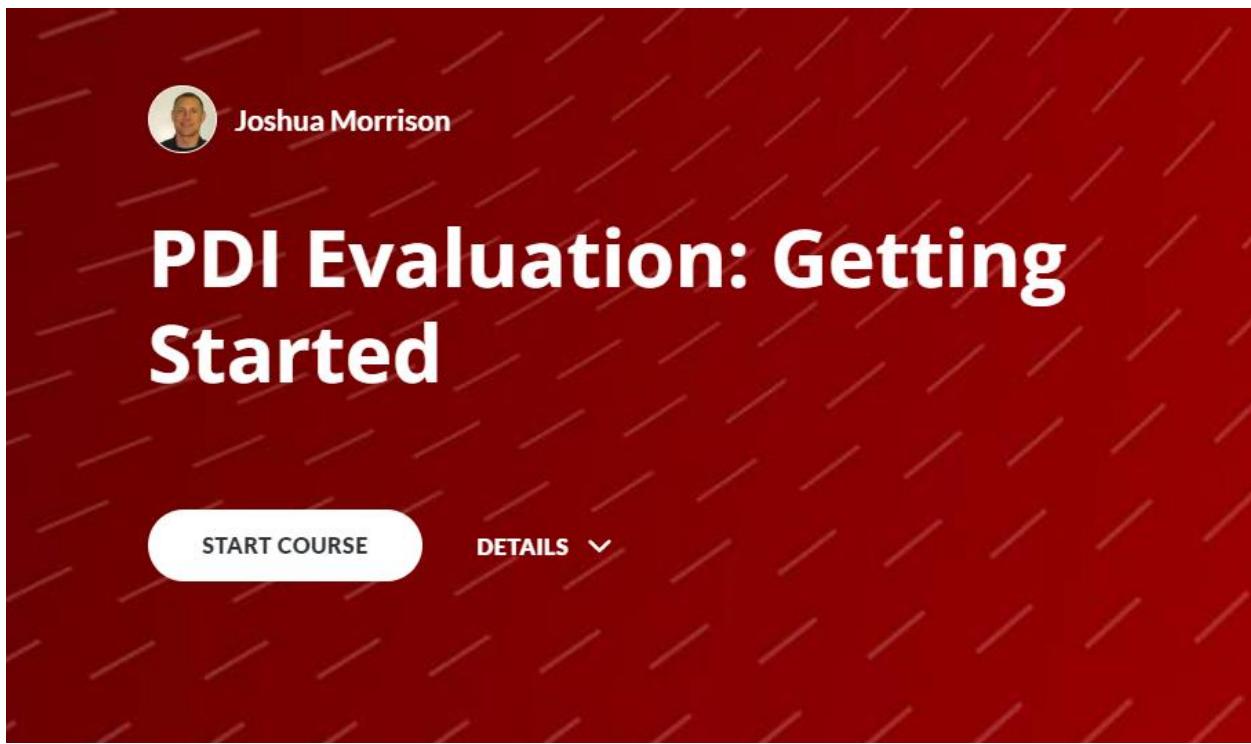
9. Jika muncul tampilan seperti diatas, klik **Open Lab**



10. Tampilan virtual machine, silahkan buka software pentaho.



11. Tampilan software pentaho jika dibuka dari virtual machine.



12. Kemudian memulai PDI Evaluation

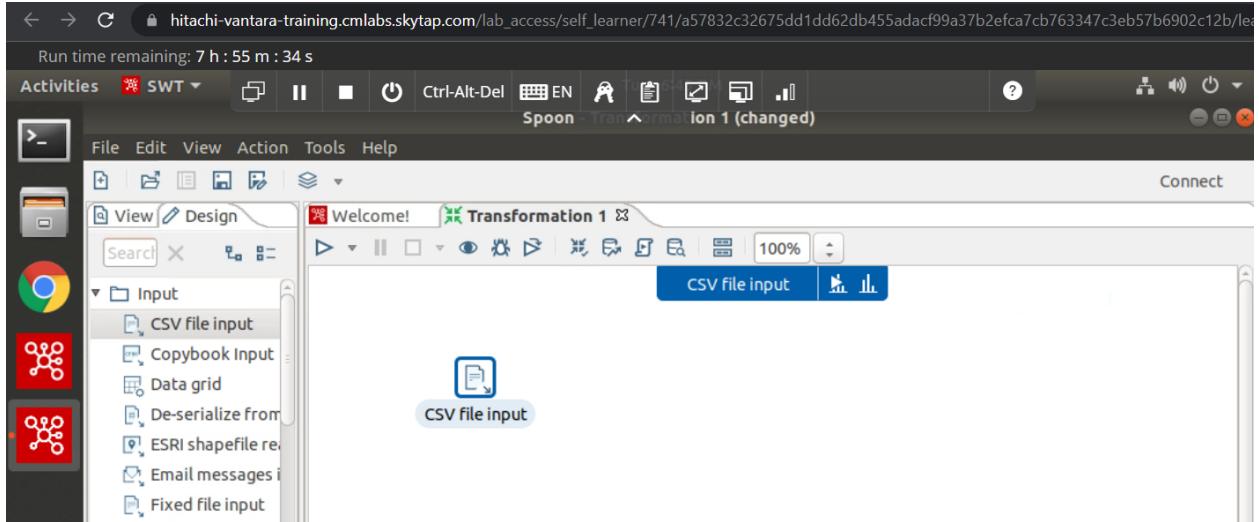
A screenshot of the course interface for "PDI Evaluation: Getting Started". On the left, there's a sidebar with the course title, a progress bar at 0% complete, and a list of five course modules: "Course Introduction", "Data Preparation Scenario", "Your First Look at PDI", "Take a Peak at the Solution", and "Hands-On: Building Your Transformation". The "Course Introduction" module is currently selected, indicated by a red border around its icon. On the right, the main content area shows a brief description: "A brief look at what this course is all about." Below this is a red box containing the text "IN THIS COURSE you're introduced to...". At the bottom of the sidebar, there's a copyright notice: "©2021 HITACHI VANTARA LLC. ALL RIGHTS RESERVED."

13. Berikut beberapa penjelasan tahapnya :

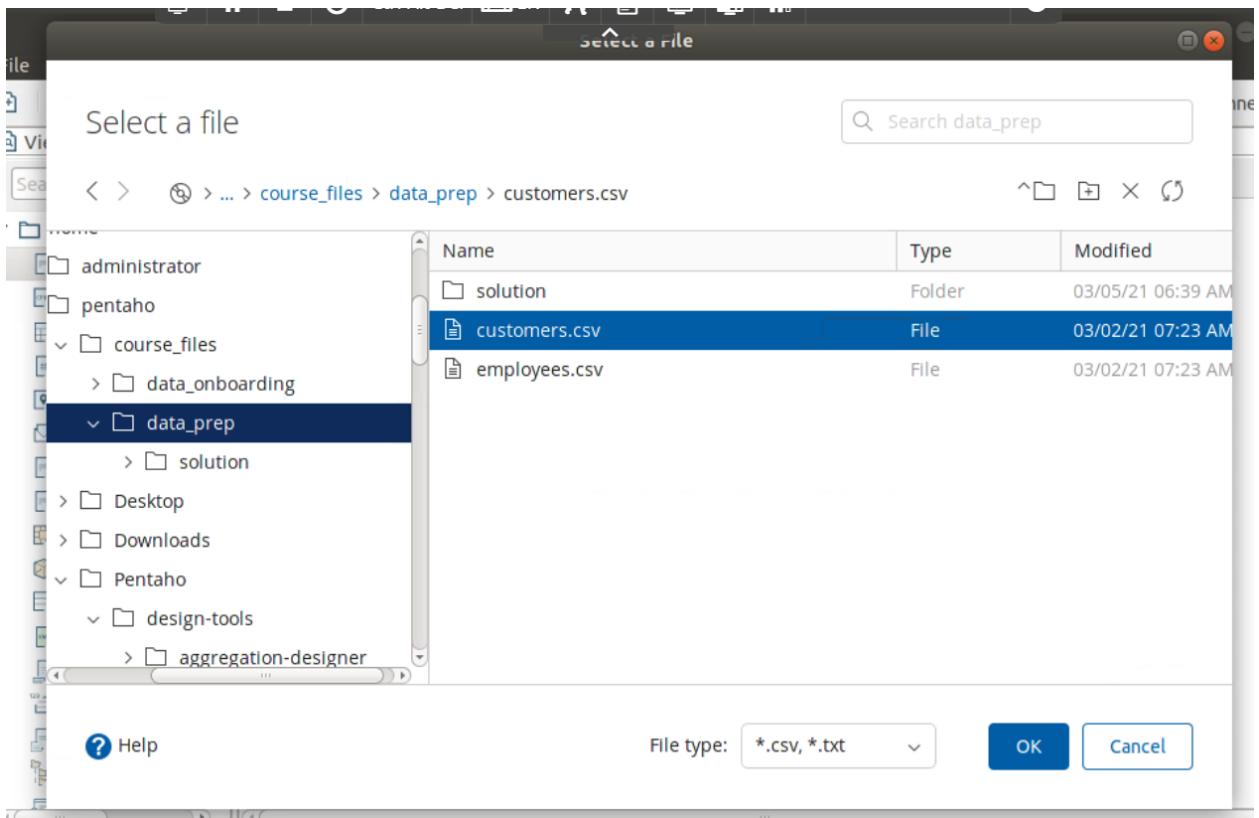
- Pada bagian pertama dijelaskan pengertian PDI
- Pada bagian kedua, diberikan skenario
- Pada bagian ketiga dijelaskan tutorial penggunaan PDI untuk open file, table, preview, dan lainnya.
- Pada bagian keempat ditunjukkan solusi dari PDI dan cara kerjanya.
- Setelahnya ditunjukkan cara menggunakan PDI untuk membaca file csv dan manipulasi data.

Reading Customer Data

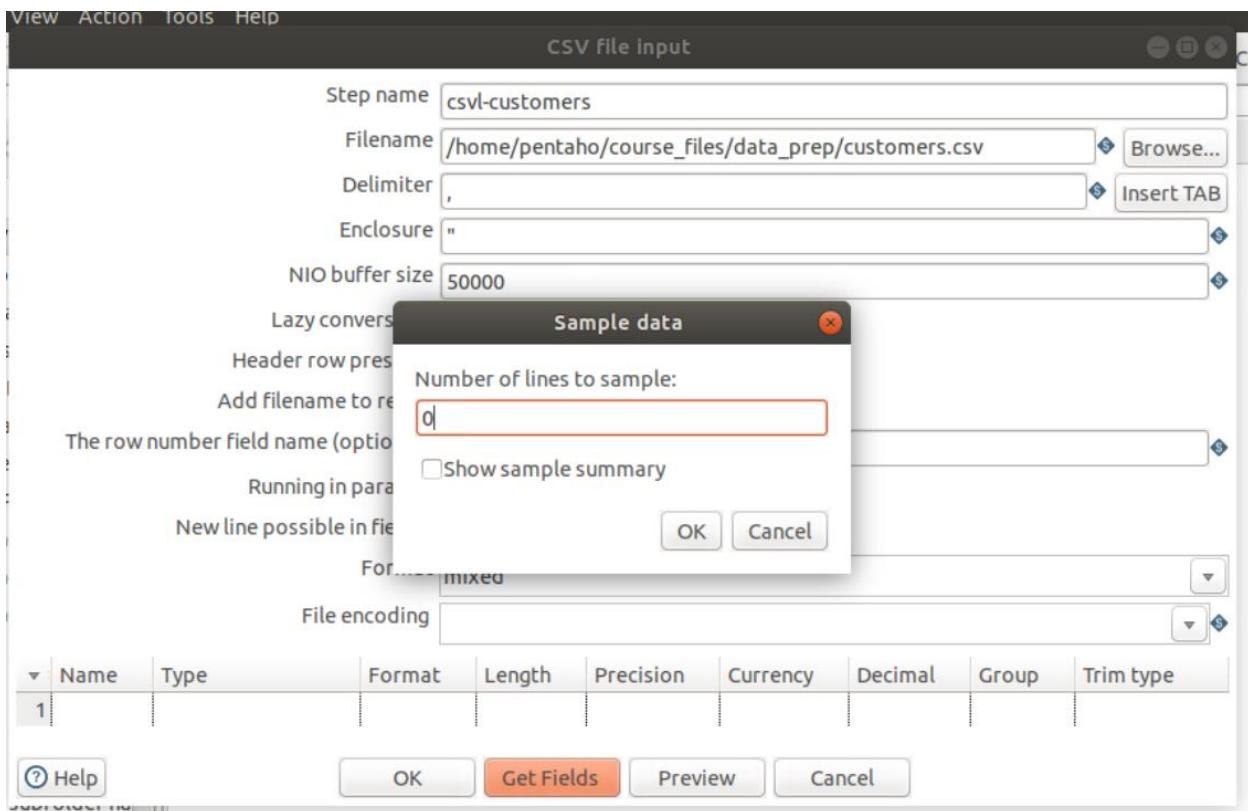
14. Pertama buka Pentaho virtual machine dan buka software pentaho
15. Kemudian pada bagian new file, pilih Transformation



16. Kemudian expand bagian **input** dan drag and drop CSV File Input.



17. Ubah nama file csv dan browse file customer.csv



18. Ubah value Get Field menjadi 0, klik Preview untuk melihat valuenya

Run time remaining: 7 h : 47 m : 15 s

Activities SWT Ctrl-Alt-Del EN Exam preview data

Rows of step: csvl-customers (36 rows)

	customer_number	customer_name	last_name	first_name	address	city	state
1	112	Signal Gift Stores	King	Sue	245 Edgefield St.	Las Vegas	NV.
2	124	Mini Gifts Distributors Ltd.	Nelson	Valarie	982 Lilac Street	San Rafael	CA
3	129	Mini Wheels Co.	Murphy	Julie	125 Augusta St.	San Francisco	CA
4	131	Land of Toys Inc.	Yu	Kwai	9 South Summit Road	NYC	NY
5	151	Muscle Machine Inc	Young	Jeff	9788 Union Avenue	NYC	NY
6	157	Diecast Classics Inc.	Yu	Kyung	907 Windsor St.	Allentown	PA
7	161	Technics Stores Inc.	Hirano	Juri	7473 Bishop Ave.	Burlingame	CA.
8	168	American Souvenirs Inc	Franco	Sue	541 East Halifax Street	New Haven	CT.
9	173	Cambridge Collectables Co.	Tseng	Kyung	271 South Moon Drive	Cambridge	MA
10	175	Gift Depot Inc.	King	Julie	9920 Pennsylvania Lane	Bridgewater	CT
11	181	Vitachrome Inc.	Frick	Michael	48 Tower Lane	NYC	NY
12	198	Auto-Moto Classics Inc.	Taylor	Leslie	8132 East Riverside Street	Brickhaven	MA
13	204	Online Mini Collectables	Barajas	Miguel	8093 Archer St	Brickhaven	MA
14	205	Toys4GrownUps.com	Young	Julie	663 Blue Spring Lane	Pasadena	CA
15	219	Boards & Toys Co.	Young	Leslie	377 Java Ave.	Glendale	CA
16	239	Collectable Mini Designs Co.	Thompson	Valarie	341 South Lumber St.	San Diego	CA
17	286	Marta's Replicas Co.	Hernandez	Marta	904 Meadowbrook Street	Cambridge	MA
18	319	Mini Classics	Frick	Steve	429 Achorage St.	White Plains	NY.
19	320	Mini Creations Ltd.	Tam	Wing C	357 John Drive	New Bedford	MA.
20	321	Corporate Gift Ideas Co.	Brown	Julie	908 Gray St.	San Francisco	CA
21	328	Tekni Collectables Inc.	Brown	William	266 Court Drive	Newark	N.J

Input

Step name: csvl-customers

Filename: /home/pentaho/course_files/data_prep/customers.csv

Delimiter: ,

Enclosure: "

NIO buffer size: 50000

Lazy conversion?

Header row present?

Add filename to result?

The row number field name (optional):

Running in parallel?

New line possible in fields?

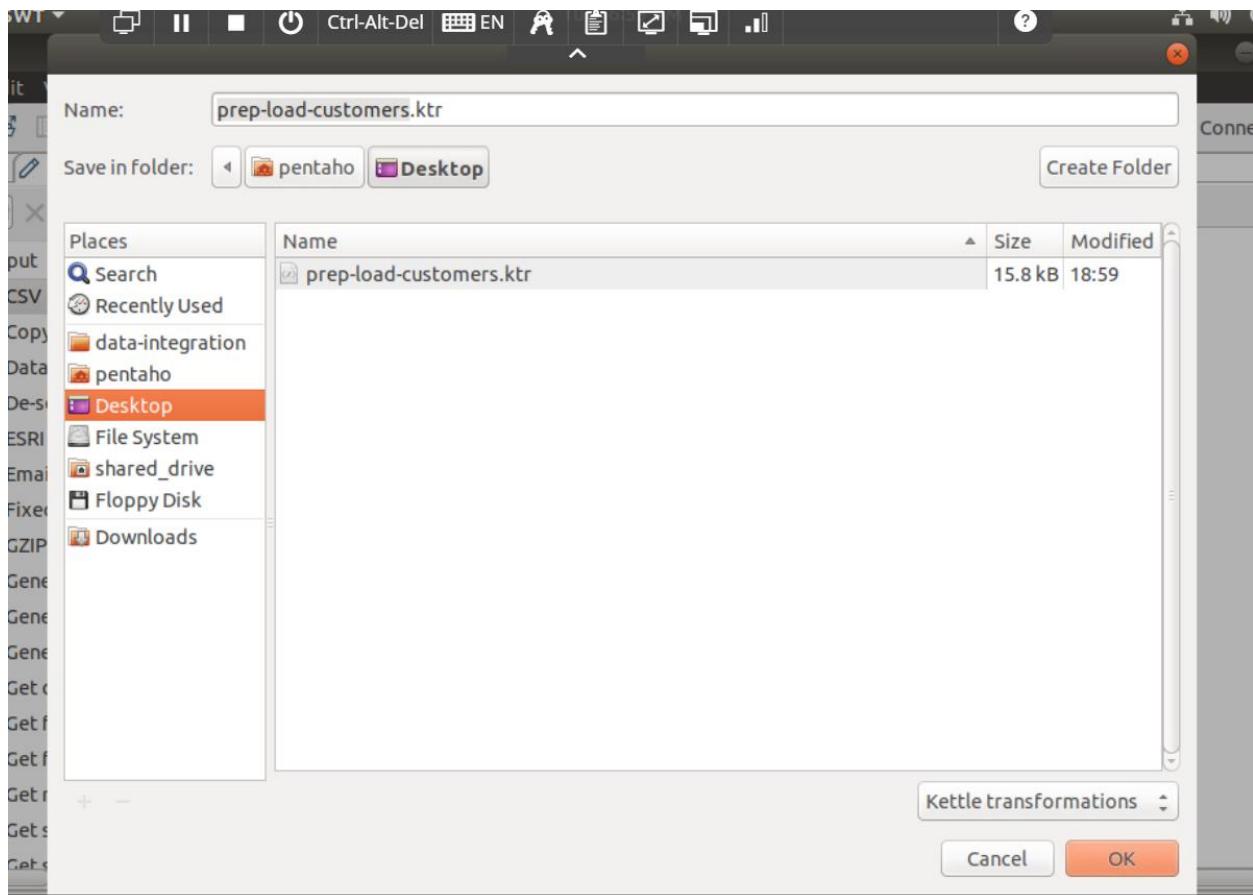
Format: mixed

File encoding:

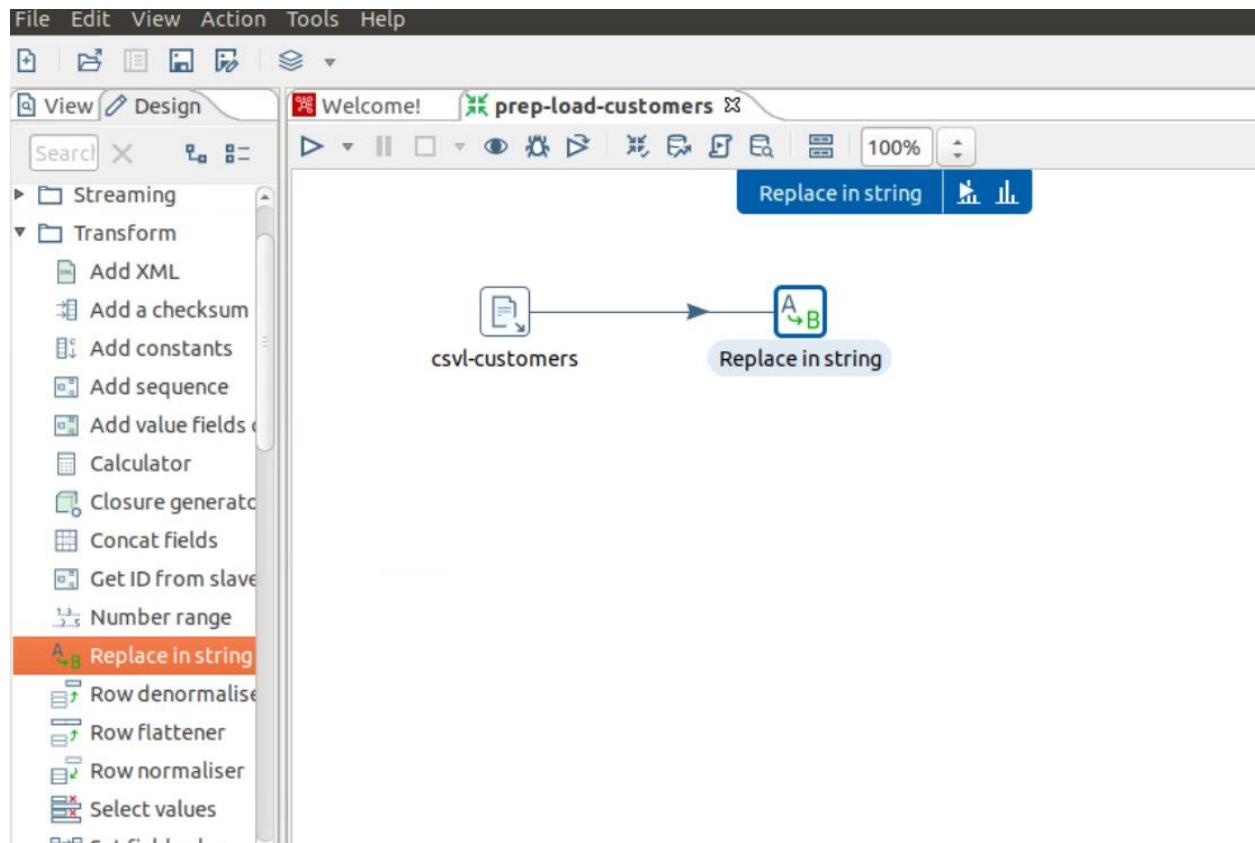
Name	Type	Format	Length	Precision	Currency	Decimal	Group	Trim type
customer_number	String		26		\$.	,	none
address	String		13		\$.	,	none
city	String		10		\$.	,	right
state	String	#	15	0	\$.	,	none
postal_code	Integer		3		\$.	,	none
country	String							none

19. Pada data diatas terlihat adanya trailing spaces pada state, kita akan mengubah trim type dari state dari none ke right.
20. Kemudian klik **Preview** dan terlihat tidak ada lagi trailing space pada kolom state.

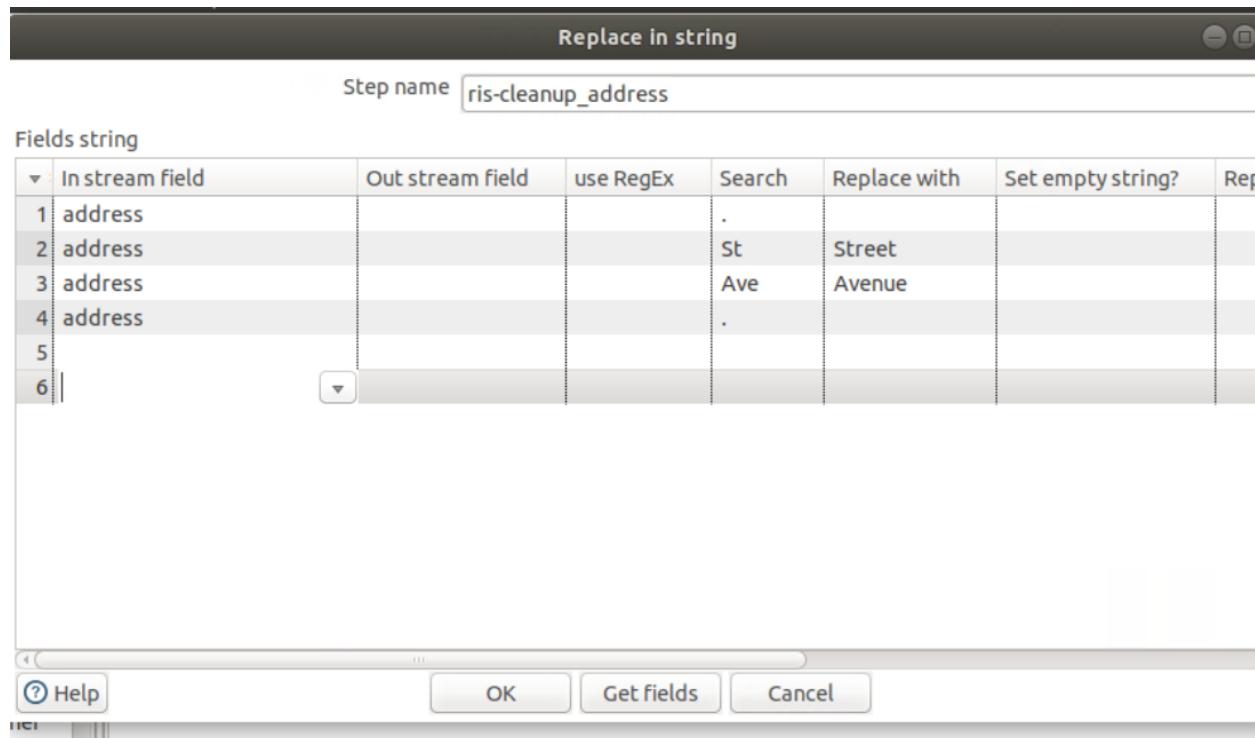
Standardize Address and State Data



1. Simpan file dengan nama prep-load-customers pada desktop dan pentaho



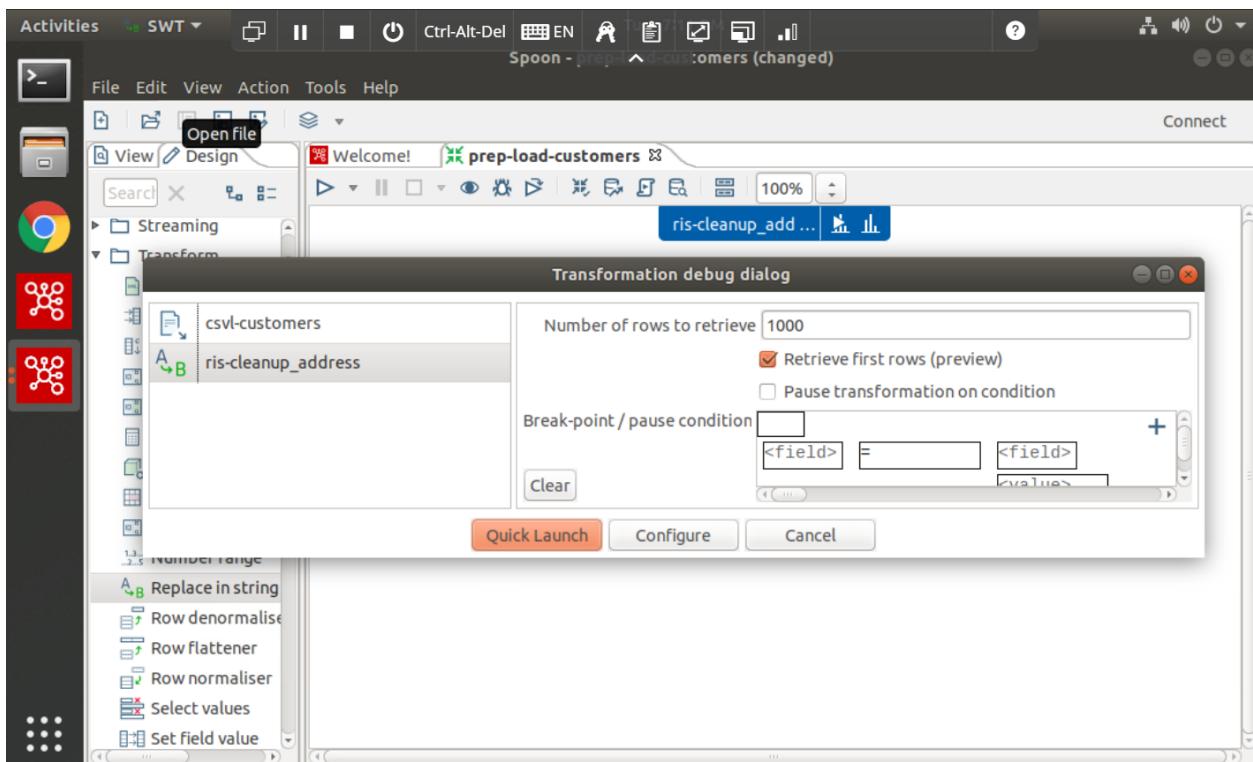
2. Klik sekali pada csvl-customers dan pilih transform pada bagian kiri dan klik dua kali replace in string



string

Search	Replace with	Set empty string?	Replace with field	Whole Word	Case
.				N	
St	Street			Y	
Ave	Avenue			Y	
.				Y	

3. Klik dua kali replace in string dan sesuaikan dengan diatas.



4. Klik kanan pada bagian ris-cleanup_address dan klik Quick Launch.

Run time remaining: 7 h : 28 m : 39 s

Activities SWT Ctrl-Alt-Del EN

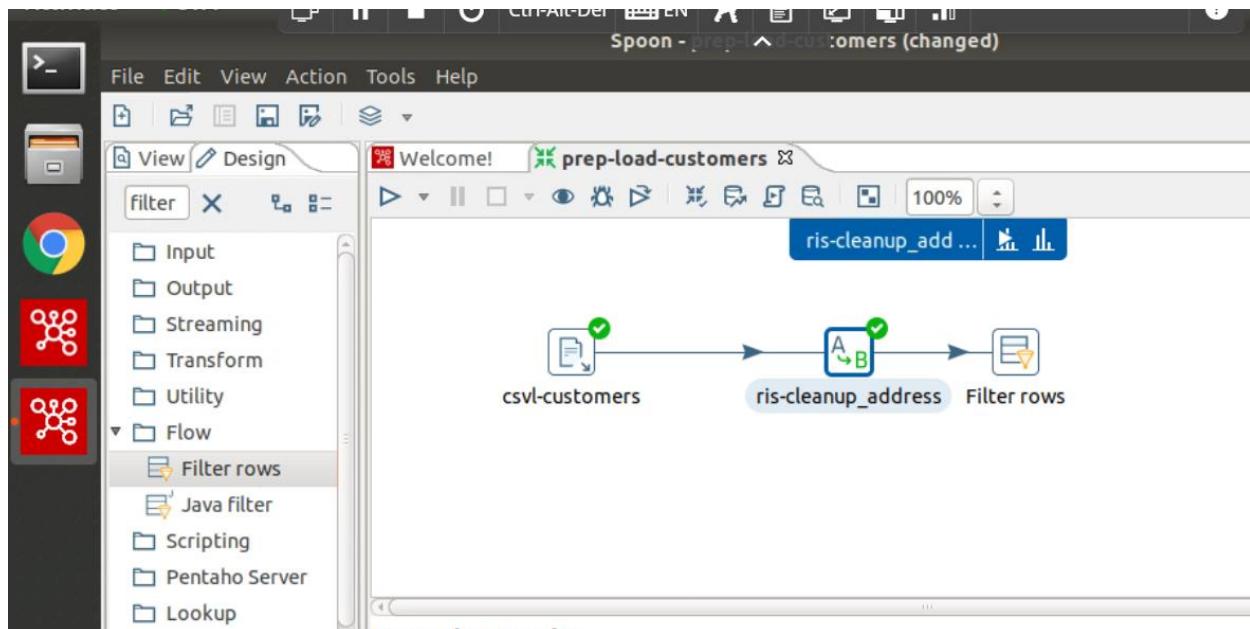
Exam preview data ?

Rows of step: ris-cleanup_address (36 rows)

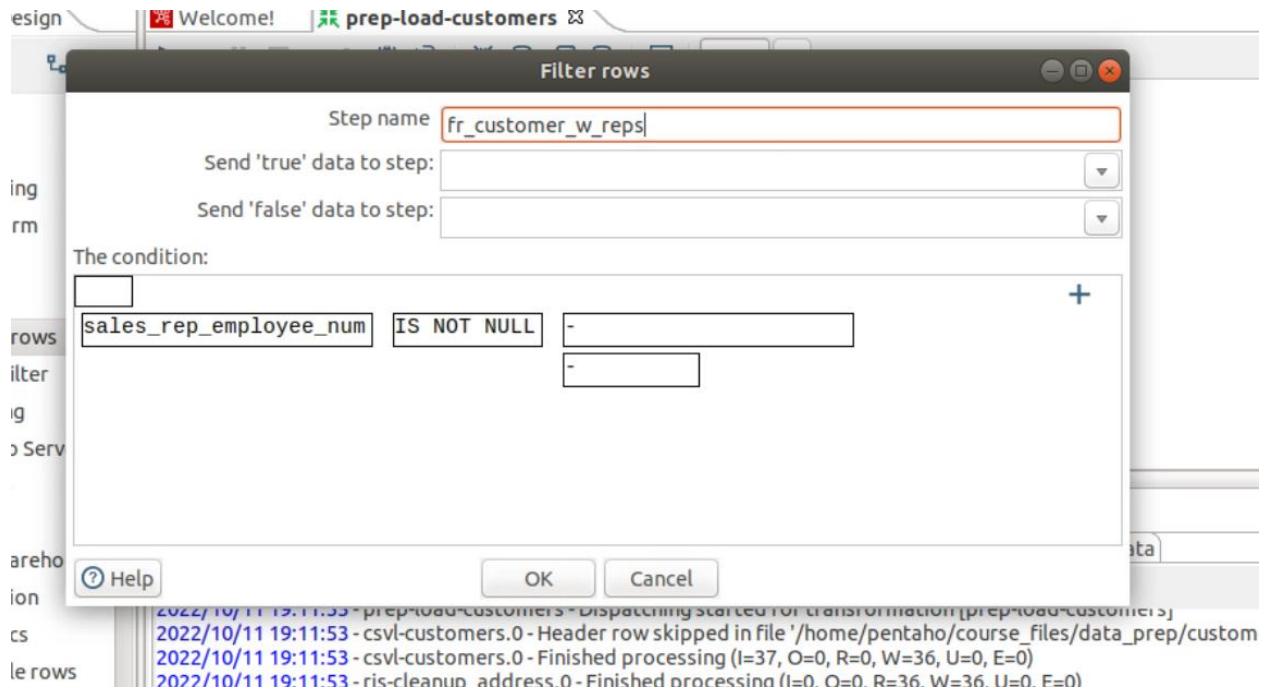
	customer_number	customer_name	last_name	first_name	address	city	state
1	112	Signal Gift Stores	King	Sue	245 Edgefield Street	Las Vegas	NV.
2	124	Mini Gifts Distributors Ltd.	Nelson	Valarie	982 Lilac Street	San Rafael	CA
3	129	Mini Wheels Co.	Murphy	Julie	125 Augusta Street	San Francisco	CA
4	131	Land of Toys Inc.	Yu	Kwai	9 South Summit Road	NYC	NY
5	151	Muscle Machine Inc	Young	Jeff	9788 Union Avenue	NYC	NY
6	157	Diecast Classics Inc.	Yu	Kyung	907 Windsor Street	Allentown	PA
7	161	Technics Stores Inc.	Hirano	Juri	7473 Bishop Avenue	Burlingame	CA.
8	168	American Souvenirs Inc	Franco	Sue	541 East Halifax Street	New Haven	CT.
9	173	Cambridge Collectables Co.	Tseng	Kyung	271 South Moon Drive	Cambridge	MA
10	175	Gift Depot Inc.	King	Julie	9920 Pennsylvania Lane	Bridgewater	CT
11	181	Vitachrome Inc.	Frick	Michael	48 Tower Lane	NYC	NY
12	198	Auto-Moto Classics Inc.	Taylor	Leslie	8132 East Riverside Street	Brickhaven	MA
13	204	Online Mini Collectables	Barajas	Miguel	8093 Archer Street	Brickhaven	MA
14	205	Toys4GrownUps.com	Young	Julie	663 Blue Spring Lane	Pasadena	CA
15	219	Boards & Toys Co.	Young	Leslie	377 Java Avenue	Glendale	CA
16	239	Collectable Mini Designs Co.	Thompson	Valarie	341 South Lumber Street	San Diego	CA
17	286	Marta's Replicas Co.	Hernandez	Marta	904 Meadowbrook Street	Cambridge	MA
18	319	Mini Classics	Frick	Steve	429 Achorage Street	White Plains	NY.
19	320	Mini Creations Ltd.	Tam	Wing C	357 John Drive	New Bedford	MA.
20	321	Corporate Gift Ideas Co.	Brown	Julie	908 Gray Street	San Francisco	CA
21	328	Tekni Collectables Inc.	Brown	William	266 Court Drive	Newark	NJ

5. Pada bagian address data sudah distandarisasi
 6. Setelah itu klik icon **Save Current File**.

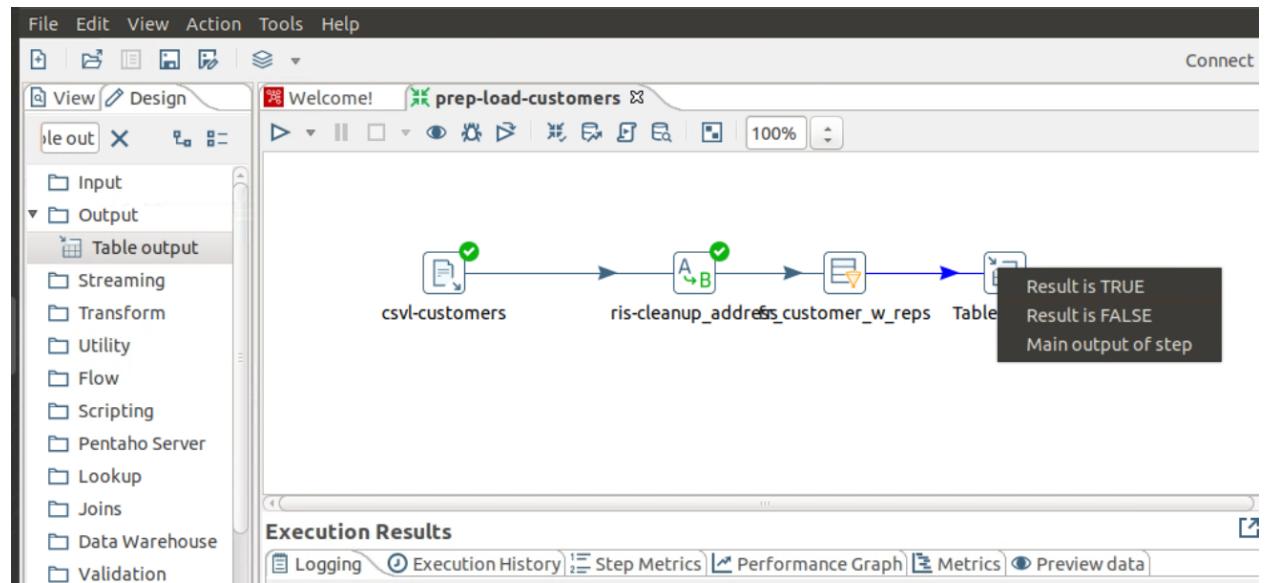
Filter Customer



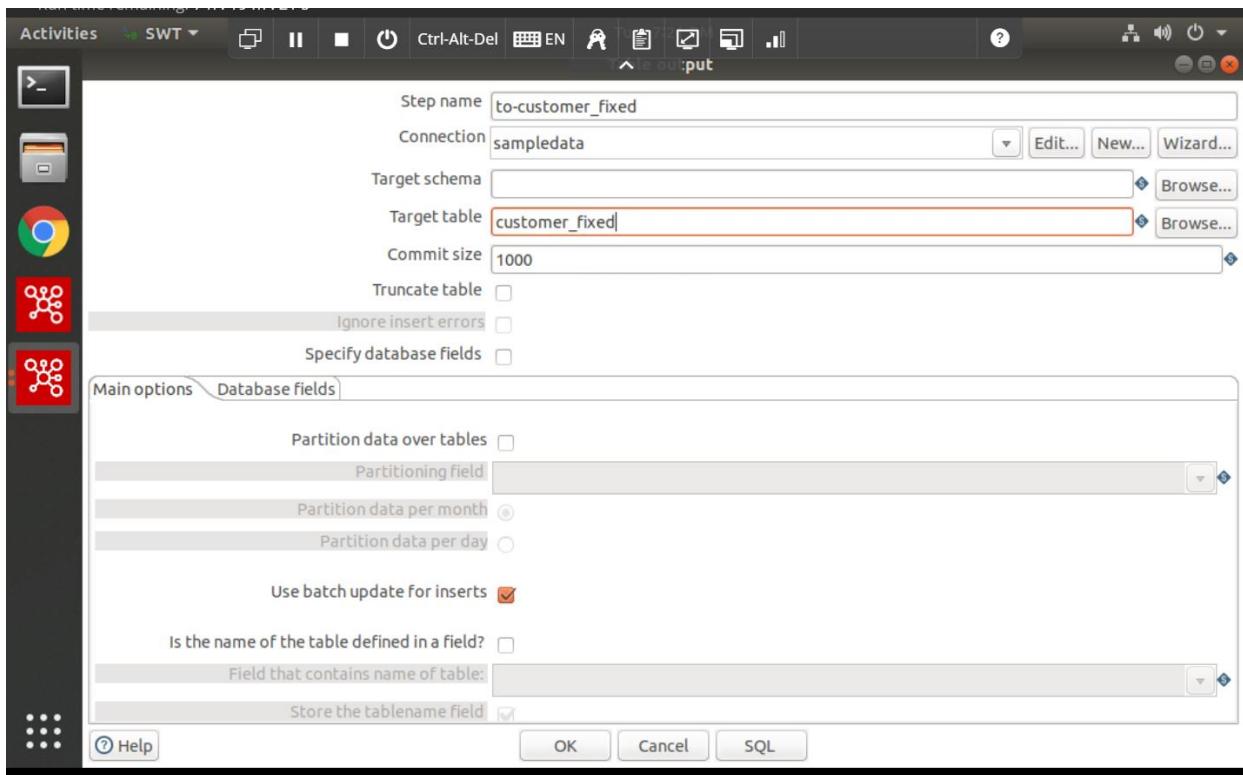
1. Pada bagian design, cari kata filter dan kemudian drag and drop Filter rows.



2. Sesuaikan dengan format diatas.



3. Kemudian pada bagian design cari Table Output dan drag and drop table output, kemudian pilih **Result is TRUE**.

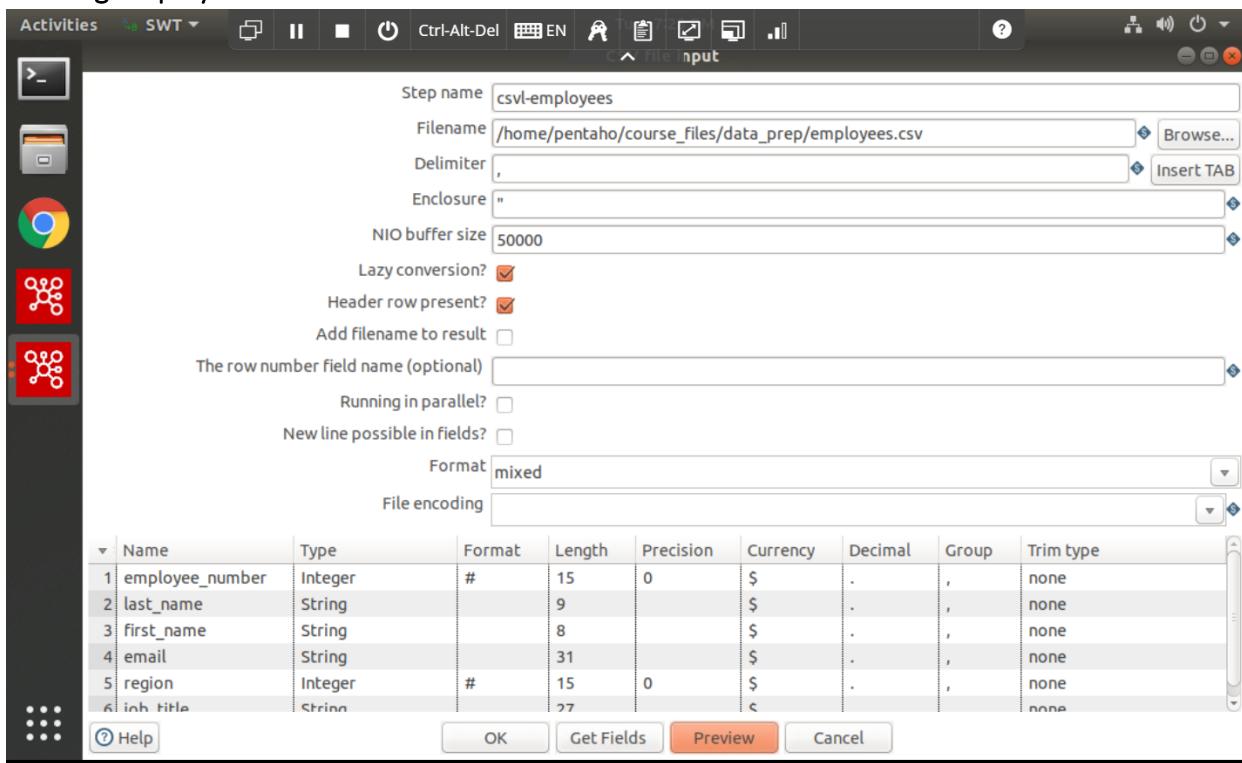


4. Klik dua kali table output dan ubah bagian step name dan target table seperti pada gambar diatas.

```
Simple SQL editor
CREATE TABLE customer_fixed
(
    customer_number BIGINT,
    customer_name VARCHAR(28),
    last_name VARCHAR(9),
    first_name VARCHAR(9),
    address VARCHAR(26),
    city VARCHAR(13),
    state VARCHAR(10),
    postal_code BIGINT,
    country VARCHAR(3),
    region BIGINT,
    sales_rep_employee_num BIGINT
);
```

5. Kemuidan klik **SQL**, klik execute dan OK, jika sudah klik icon Save Current File.

Reading Employee Data



1. Lakukan hal yang sama dengan csvl-customer, kemudian klik dua kali csv dan ubah step name dan filename, kemudian pada get fields value 0 dan klik preview.

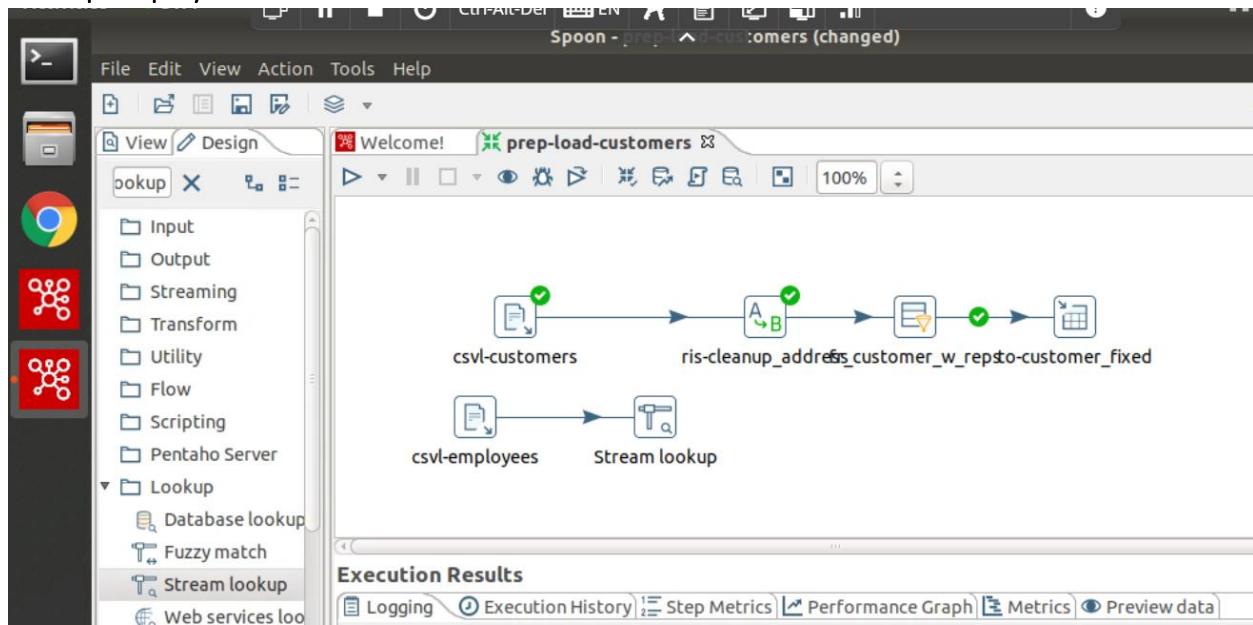
Rows of step: csvl-employees (23 rows)

	employee_number	last_name	first_name	email	region	job_title
1	1002	Murphy	Diane	dmurphy@classicmodelcars.com	<null>	President
2	1056	Patterson	Mary	mpatterso@classicmodelcars.com	<null>	VP Sales
3	1076	Firrelli	Jeff	jfirrelli@classicmodelcars.com	<null>	VP Marketing
4	1088	Patterson	William	wpatterson@classicmodelcars.com	<null>	Sales Manager (JAPAN, APAC)
5	1102	Bondur	Gerard	athompson@classicmodelcars.com	<null>	Sale Manager (EMEA)
6	1143	Bow	Anthony	bhoward@classicmodelcars.com	<null>	Sales Manager (NA)
7	1165	Jennings	Leslie	ljennings@classicmodelcars.com	2	Sales Rep
8	1166	Thompson	Leslie	lthompson@classicmodelcars.com	1	Sales Rep
9	1188	Firrelli	Julie	jfirrelli@classicmodelcars.com	4	Sales Rep
10	1216	Patterson	Steve	spatterso@classicmodelcars.com	8	Sales Rep
11	1286	Tseng	Foon Yue	ftseng@classicmodelcars.com	14	Sales Rep
12	1323	Vanauf	George	gvanauf@classicmodelcars.com	3	Sales Rep
13	1337	Bondur	Loui	lbondur@classicmodelcars.com	17	Sales Rep
14	1370	Hernandez	Gerard	ghernande@classicmodelcars.com	9	Sales Rep
15	1401	Castillo	Pamela	pcastillo@classicmodelcars.com	13	Sales Rep
16	1501	Bott	Larry	lbott@classicmodelcars.com	16	Sales Rep
17	1504	Jones	Barry	bjones@classicmodelcars.com	7	Sales Rep
18	1611	Fixter	Andy	afixter@classicmodelcars.com	11	Sales Rep
19	1612	Marsh	Peter	pmarsh@classicmodelcars.com	10	Sales Rep
20	1619	King	Tom	tking@classicmodelcars.com	15	Sales Rep
21	1621	Nishi	Mami	mnishi@classicmodelcars.com	12	Sales Rep

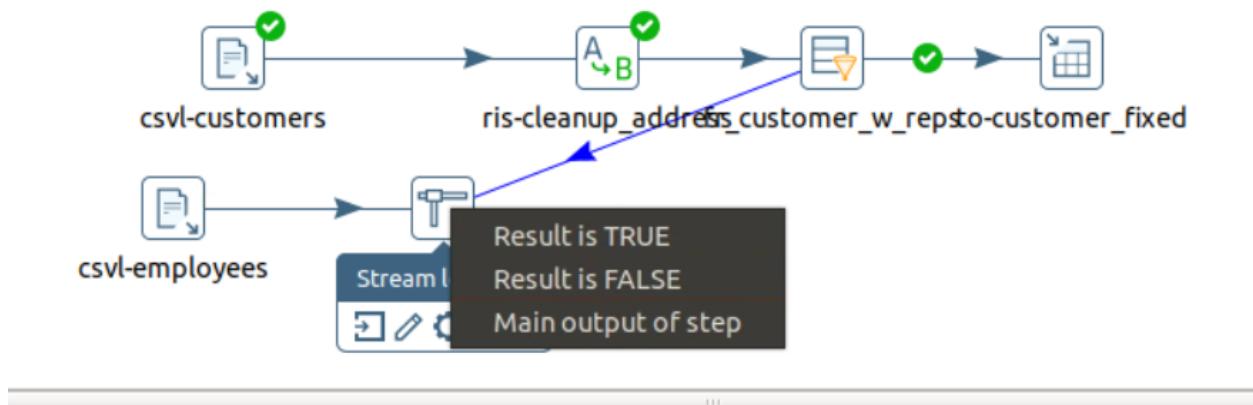
Buttons at the bottom: Close, Show Log.

2. Tampilan preview

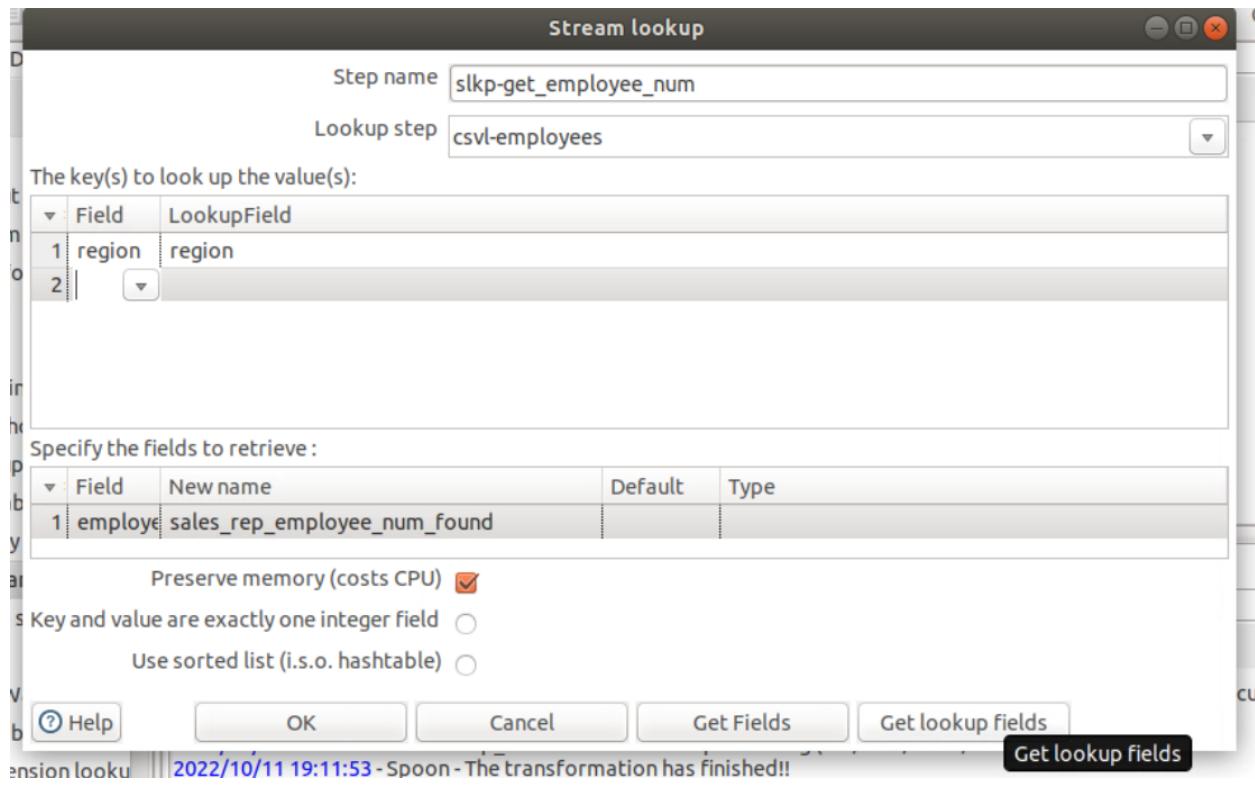
Lookup Employee Number



1. Cari file stream lookup dan hubungkan dengan csvl-employees

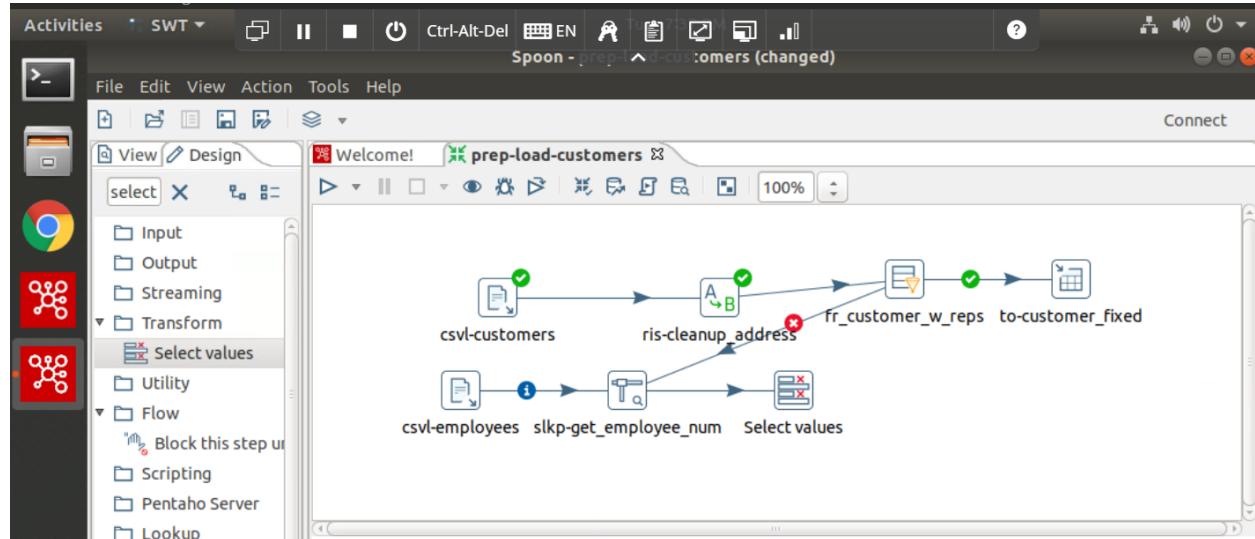


2. Hubungkan filter dengan stream lookup dan kondisi result is false

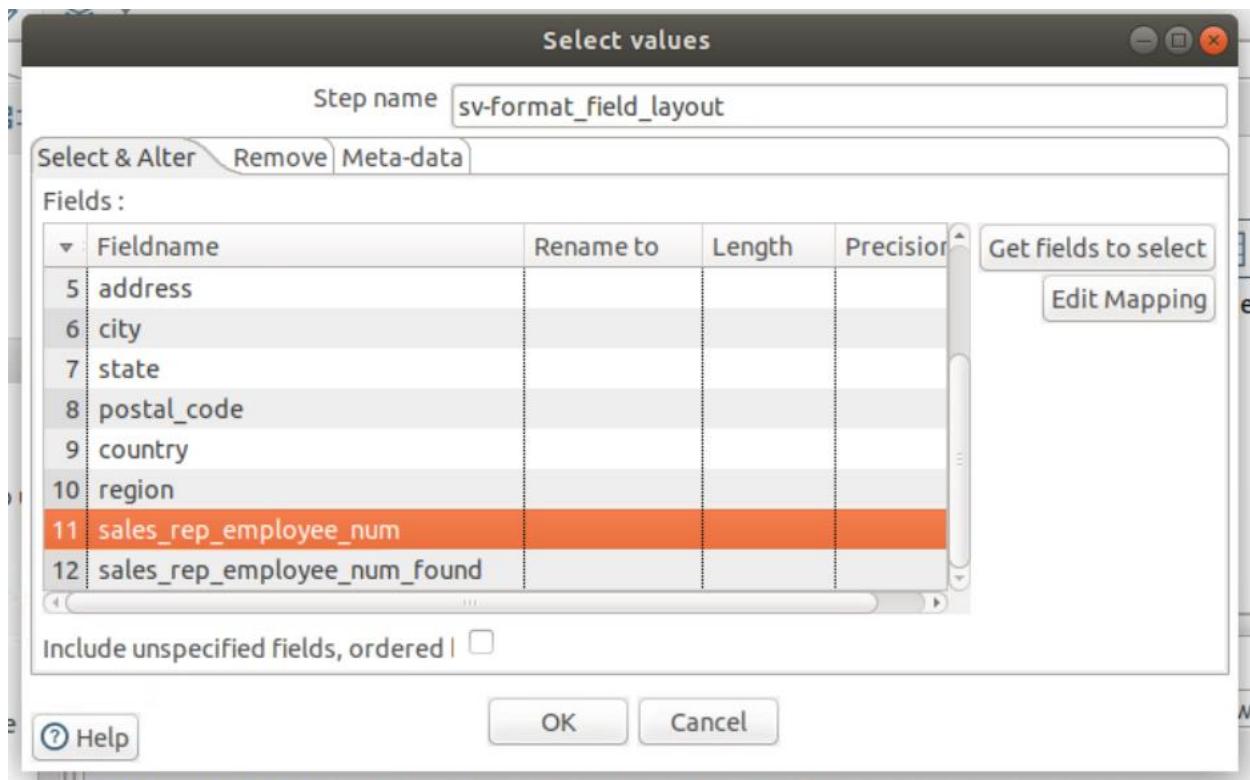


3. Klik dua kali stream lookup dan isi sesuai dengan format diatas.

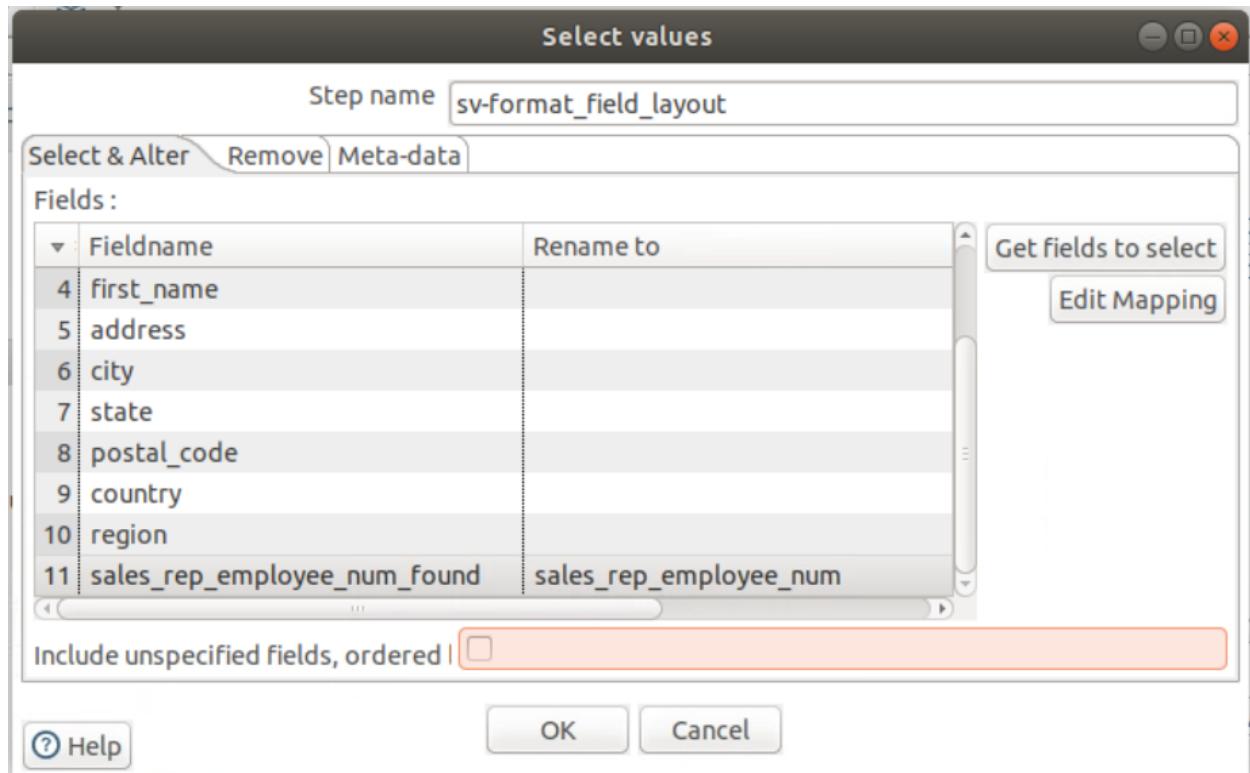
Format Fields Layout



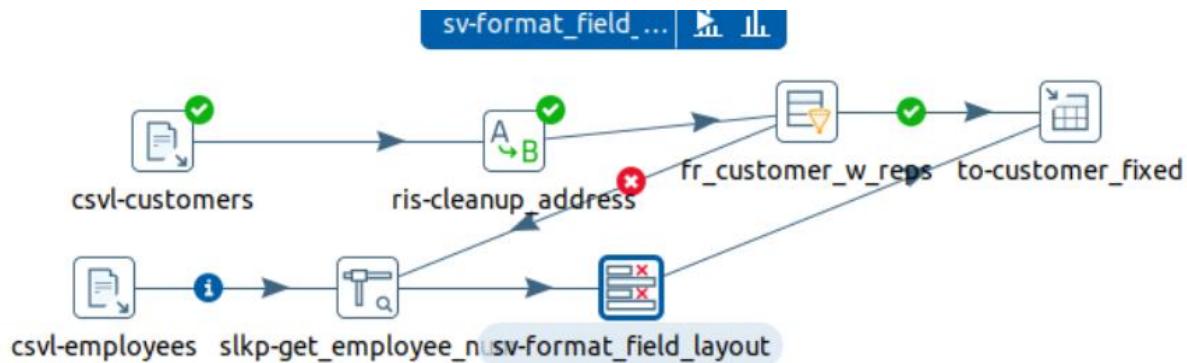
1. Cari file select values dan hubungkan seperti pada gambar diatas.



2. Klik dua kali pada select values dan ubah step name, kemudian klik **get fields to select** dan hapus sales_rep_employee_num.

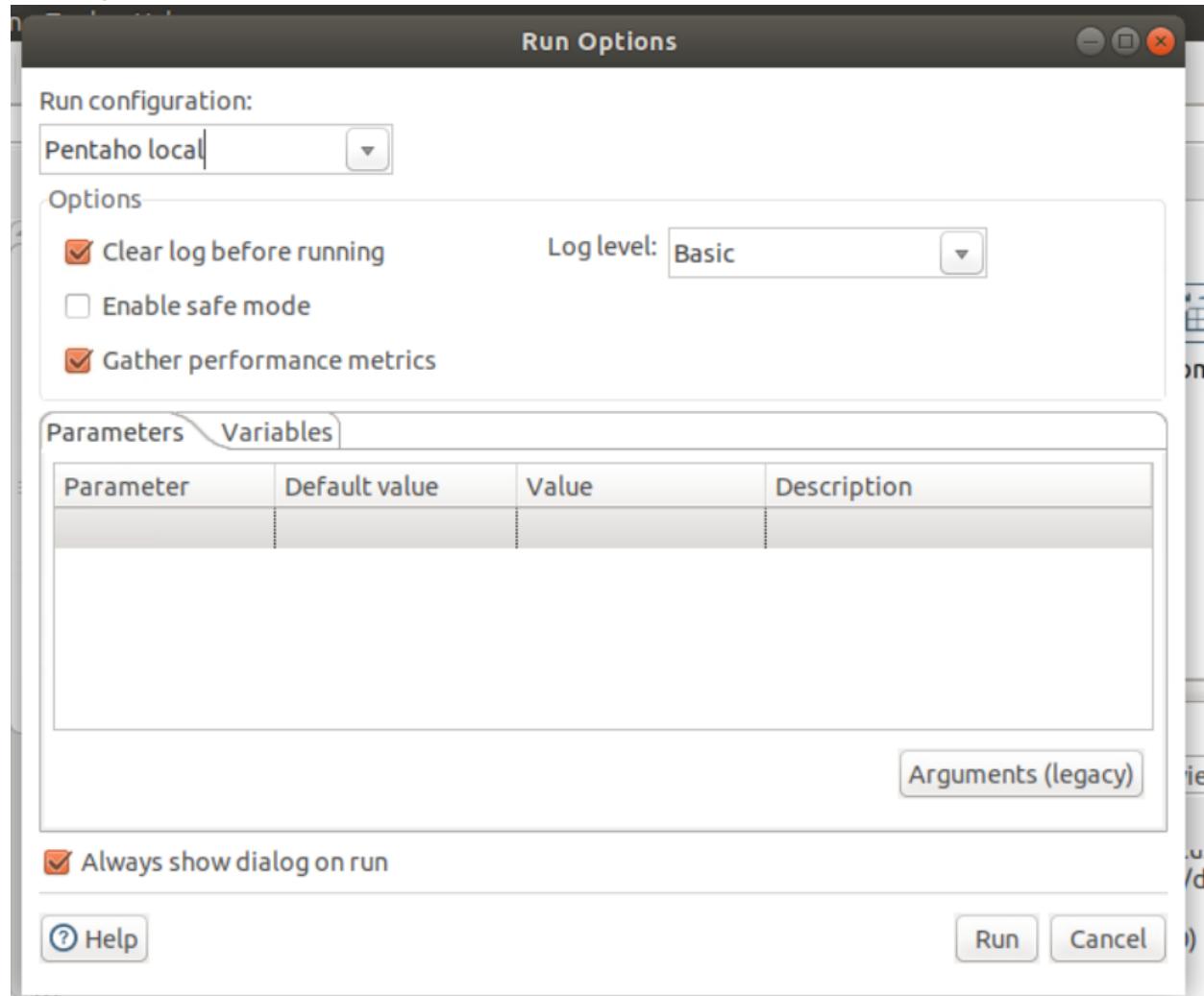


3. Kemudian pada bagian sales_rep_employee_num_found, lakukan seperti pada gambar diatas.

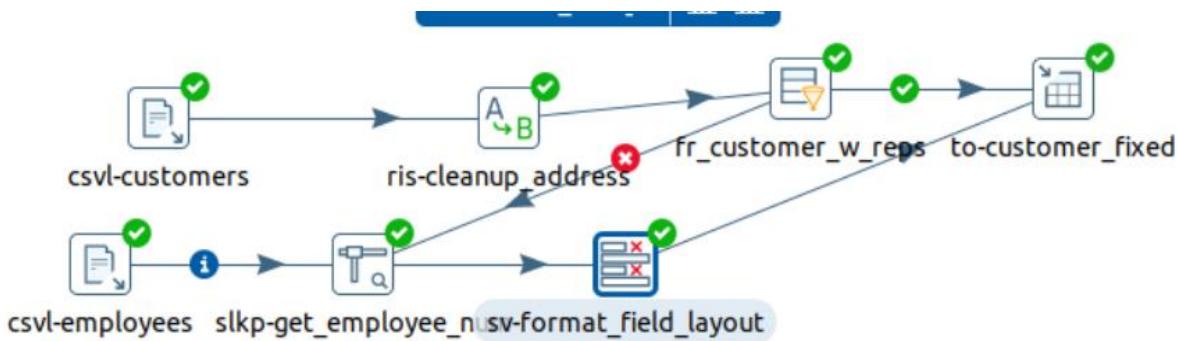


4. Hubungkan select view dengan customer_fixed seperti pada gambar diatas.

Running Your Transformation



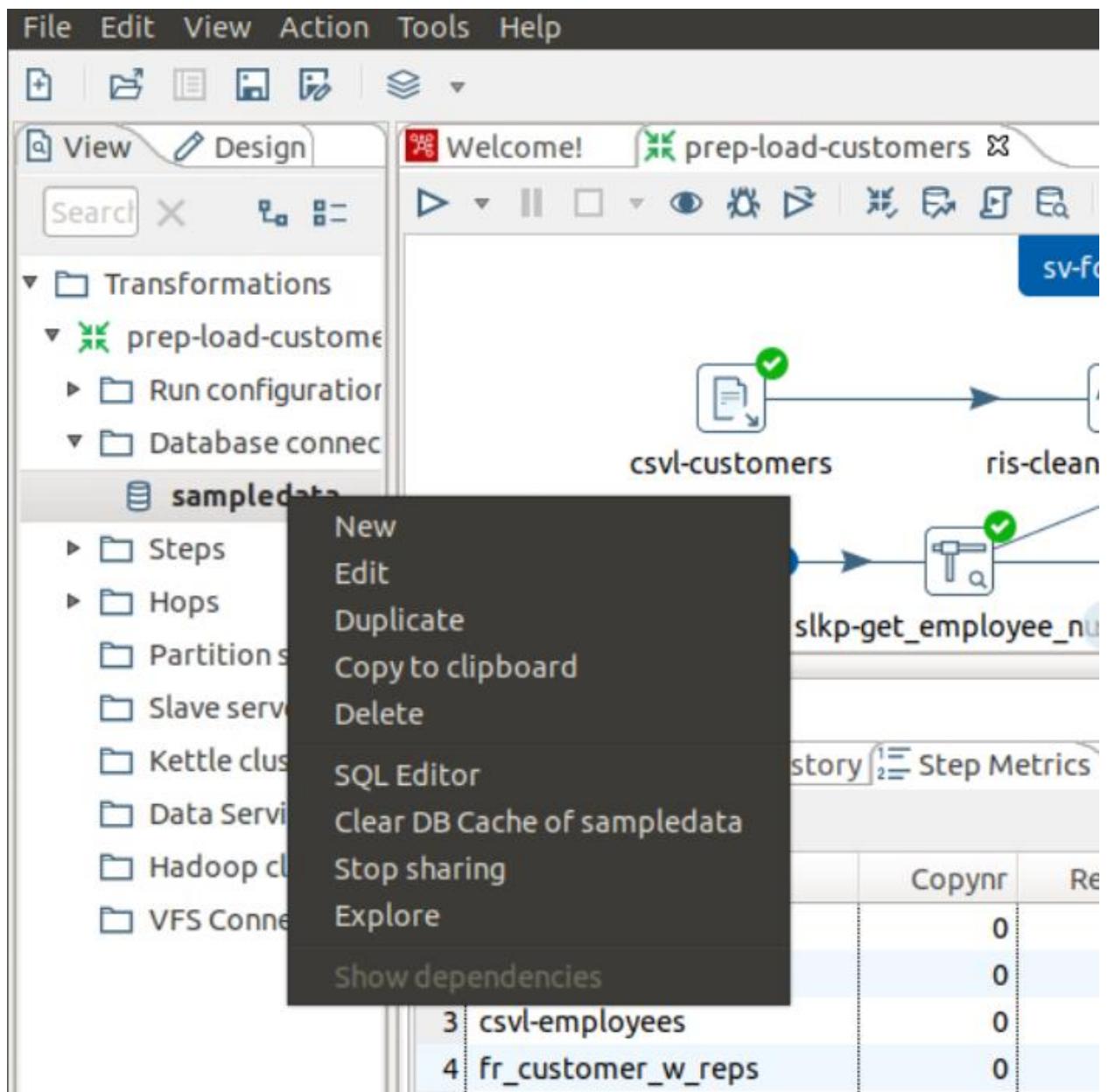
1. Klik icon run dan klik run.



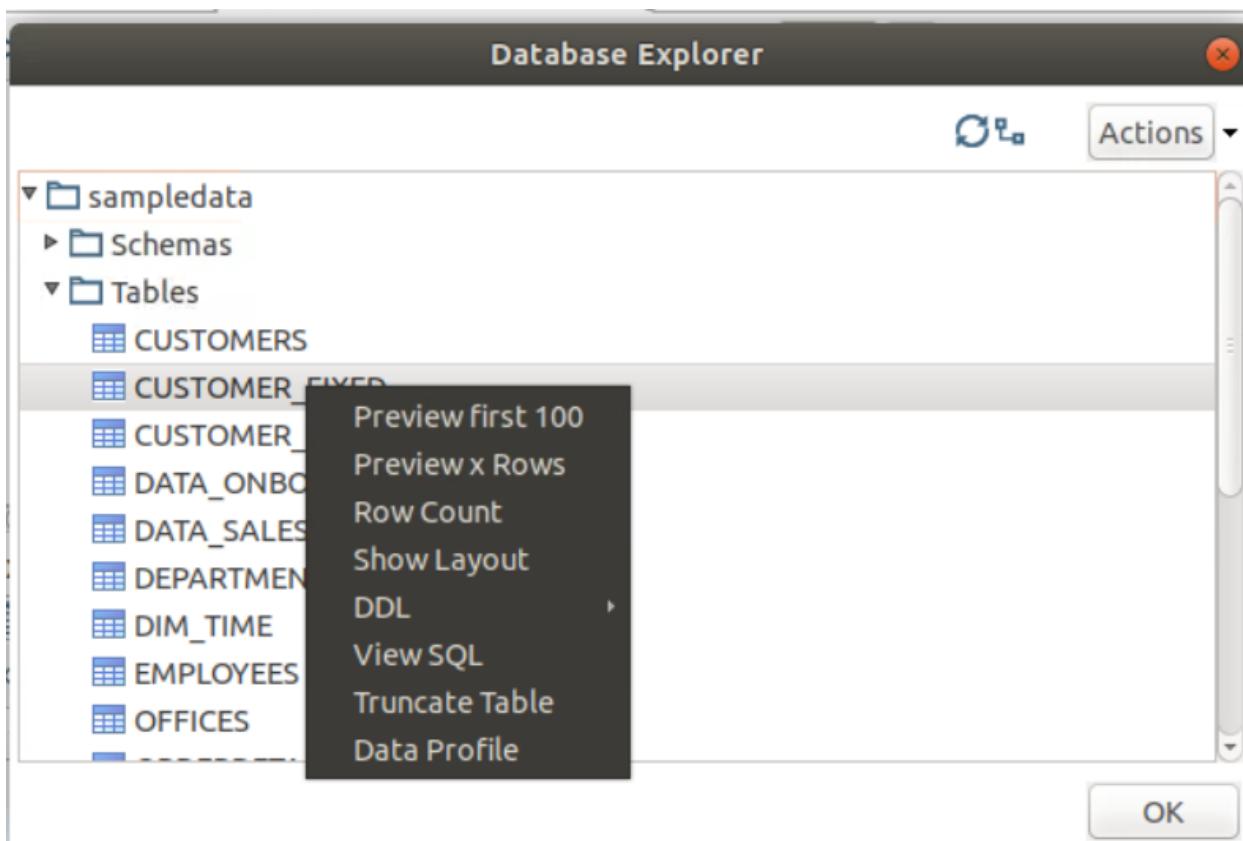
2. Jika tidak ada kesalahan, akan muncul ceklis hijau seperti pada gambar diatas.

Stepname	Copynr	Read	Written	Input	Output	Updated	Rejected	Error
1 csv-customers	0	0	36	37	0	0	0	0
2 ris-cleanup_address	0	36	36	0	0	0	0	0
3 csv-employees	0	0	23	24	0	0	0	0
4 fr_customer_w_reps	0	36	36	0	0	0	0	0
5 slkp-get_employee_num	0	33	10	0	0	0	0	0
6 sv-format field layout	0	10	10	0	0	0	0	0

3. Tab Step Metrics bertujuan untuk menunjukkan pemrosesan data pada setiap step, contohnya to-customers_fixed memiliki output 36, yang berarti terdapat 36 data yang masuk kedalam tabel customer_fixed pada database sample data yang sudah dibentuk.



4. Pada bagian view, kemudian database connection dan sample data, klik kanan kemudian pilih explore



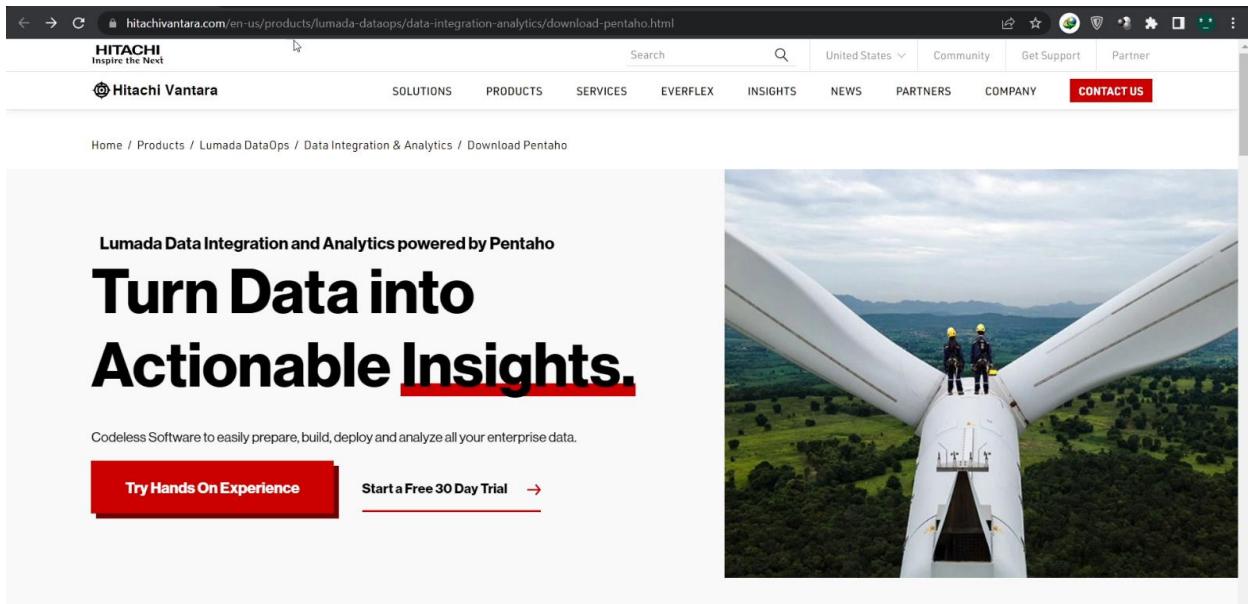
5. Kemudian pada sampledata, tables, customer_fixed klik kanan dan pilih preview first 100

The screenshot shows a data preview window titled 'Rows of step: CUSTOMER_FIXED (36 rows)'. The window contains a table with columns: CUSTOMER_NUMBER, CUSTOMER_NAME, LAST_NAME, FIRST_NAME, ADDRESS, and CITY. The data shows various customers from different cities like Las Vegas, NYC, Allentown, Burlingame, New Haven, Cambridge, Bridgewater, Brickhaven, Pasadena, White Plains, New Bedford, San Francisco, Newark, Philadelphia, Los Angeles, Boston, Nashua, NYC, and Glendale. The first few rows are highlighted in orange.

	CUSTOMER_NUMBER	CUSTOMER_NAME	LAST_NAME	FIRST_NAME	ADDRESS	CITY
1	112	Signal Gift Stores	King	Sue	245 Edgefield Street	Las Vegas
2	131	Land of Toys Inc.	Yu	Kwai	9 South Summit Road	NYC
3	157	Diecast Classics Inc.	Yu	Kyung	907 Windsor Street	Allentown
4	161	Technics Stores Inc.	Hirano	Juri	7473 Bishop Avenue	Burlingame
5	168	American Souvenirs Inc	Franco	Sue	541 East Halifax Street	New Haven
6	173	Cambridge Collectables Co.	Tseng	Kyung	271 South Moon Drive	Cambridge
7	175	Gift Depot Inc.	King	Julie	9920 Pennsylvania Lane	Bridgewater
8	198	Auto-Moto Classics Inc.	Taylor	Leslie	8132 East Riverside Street	Brickhaven
9	204	Online Mini Collectables	Barajas	Miguel	8093 Archer Street	Brickhaven
10	205	Toys4GrownUps.com	Young	Julie	663 Blue Spring Lane	Pasadena
11	286	Marta's Replicas Co.	Hernandez	Marta	904 Meadowbrook Street	Cambridge
12	319	Mini Classics	Frick	Steve	429 Anchorage Street	White Plains
13	320	Mini Creations Ltd.	Tam	Wing C	357 John Drive	New Bedford
14	321	Corporate Gift Ideas Co.	Brown	Julie	908 Gray Street	San Francisco
15	328	Tekni Collectables Inc.	Brown	William	266 Court Drive	Newark
16	339	Classic Gift Ideas, Inc	Cervantes	Francisca	798 Pinnacle Avenue	Philadelphia
17	347	Men 'R' US Retailers, Ltd.	Chandler	Michael	529 Carriage Street	Los Angeles
18	362	Gifts4AllAges.com	Yoshido	Juri	222 Green Lake Street	Boston
19	363	Online Diecast Creations Co.	Young	Valarie	7987 Manchester Street	Nashua
20	424	Classic Legends Inc.	Hernandez	Maria	8847 West Oceanview Street	NYC
21	447	Gift Ideas Corp.	Lewis	Dan	655 Wentworth Street	Glendale

6. Dapat dilihat data diatas sudah sesuai dengan standarisasi yang ada.

30 Days Trials (Download Software)



1. Pertama masuk kehalaman diatas dan klik Start a Free 30 Day Trial

SUBMISSION AGREEMENT

I confirm that the information being provided for submission is complete, true and accurate to the best of my knowledge.

First Name Dolok	Last Name Malau
Business Email dolokm01@gmail.com	Business Telephone 081263645846
Company Name NONE	Job Title NONE
Address Medan Johor	City Medan
Country/Region Indonesia	

By downloading the Pentaho software, I agree to comply with the [Terms and Conditions](#) and I acknowledge that any personal information that I submit pursuant to this form will be subject to the [Privacy Policy](#).

If you select 'Yes' below, you consent to receive commercial communications by email in relation to Hitachi Vantara's products and services.

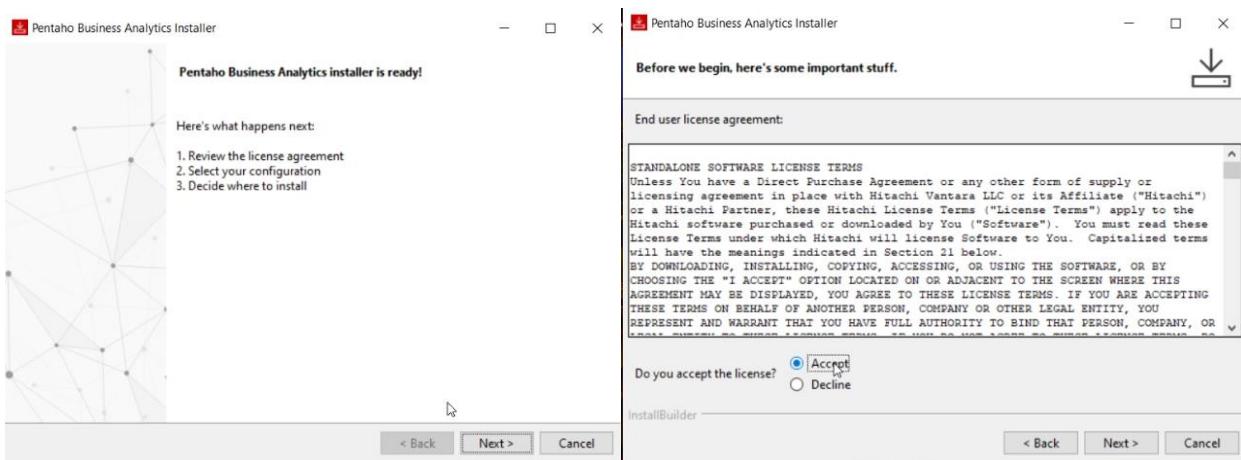
Yes No

SUBMIT

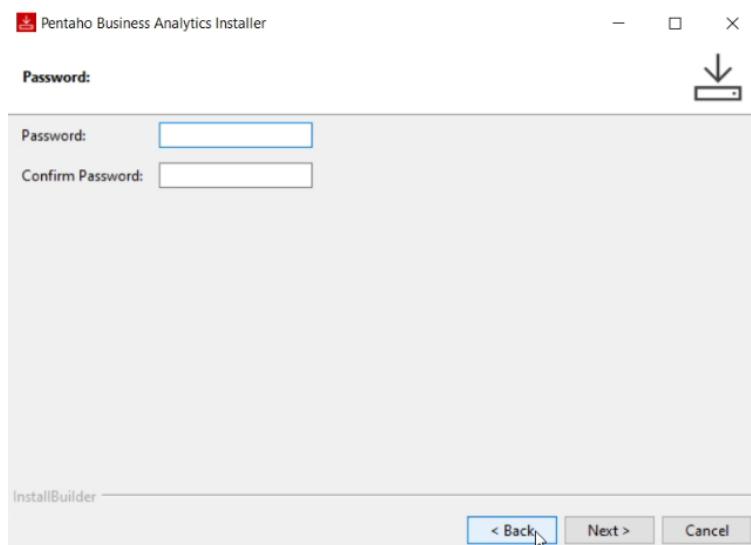
2. kemudian Register untuk dapat mendownload software Pentaho.

The screenshot shows a download confirmation page for the Pentaho Trial software. At the top, the Hitachi Vantara logo is visible along with navigation links for Search, United States, Community, Get Support, and Partner. Below the header, there's a breadcrumb trail: Home / Products / Lumada DataOps / Data Integration & Analytics / Tutorials. The main content features a dark wood background with a laptop displaying a green chart and a cup of coffee. A large text box says "Thank you for downloading the Pentaho Trial!" and includes a link to a video titled "Try Pentaho With confidence! Learn how to build data pipelines in minutes not hours!". Below this, a link says "If your download didn't start automatically, click here." The URL in the browser bar is <https://www.hitachivantara.com/en-us/products/lumada-dataops/data-integration-analytics/tutorials/pentaho-business-analyst...>.

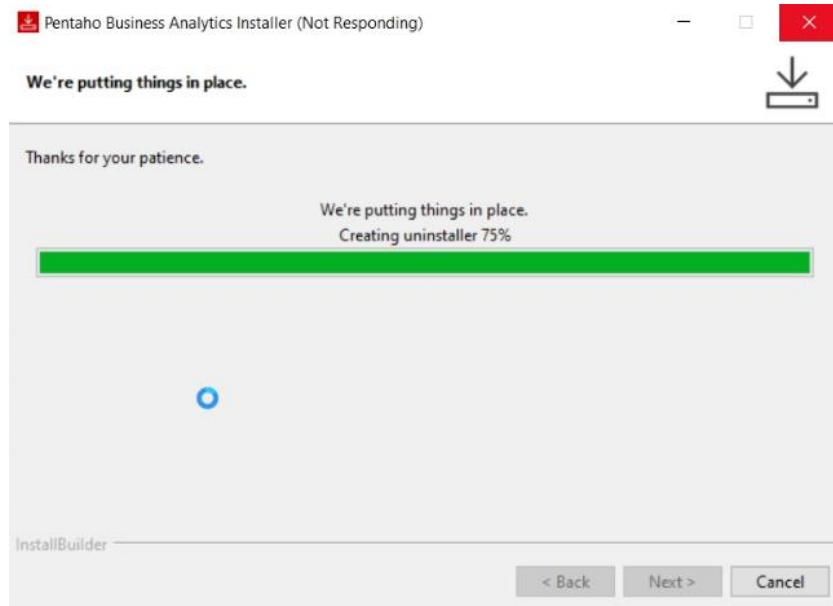
3. Jika sudah maka akan otomatis mendownload software pentaho.



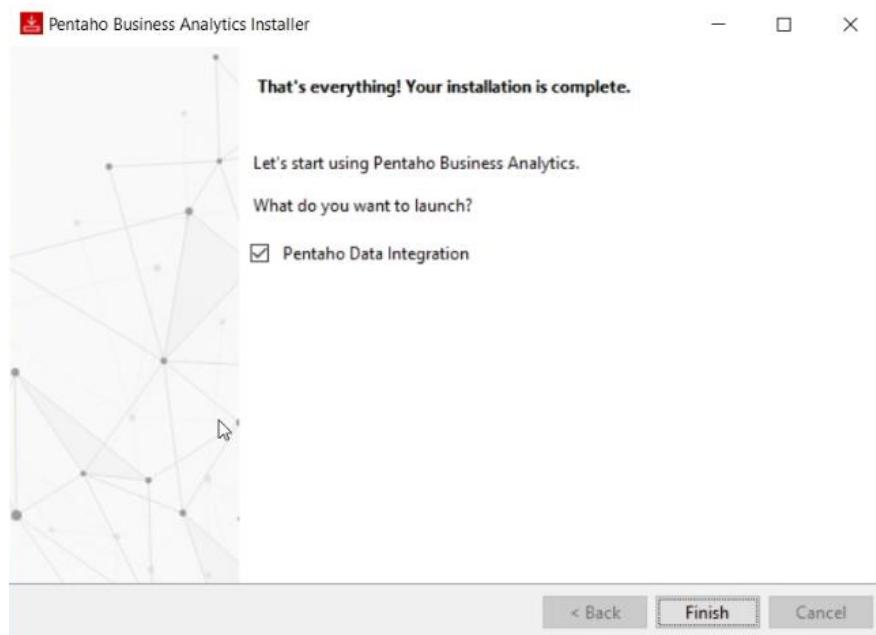
4. Buka instalasi pentaho, kemudian pilih Accept agreement



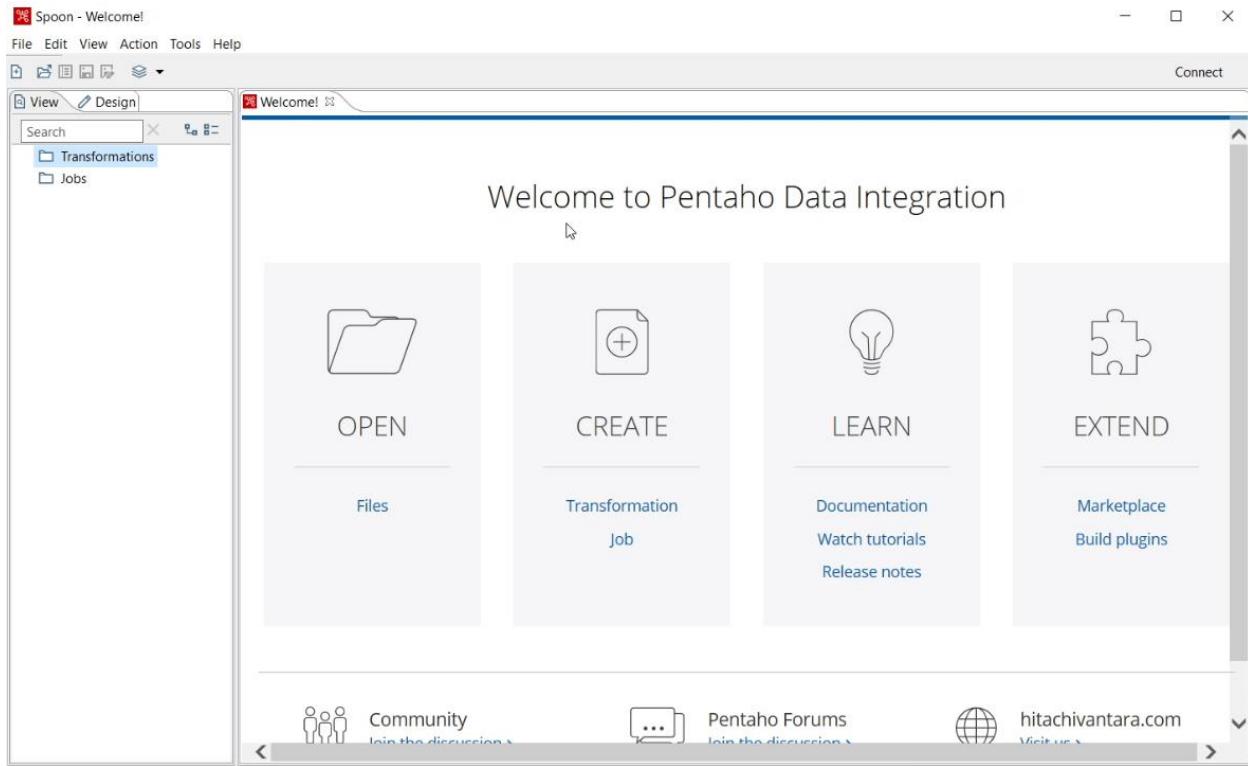
5. Kemudian pilih lokasi instalasi pentaho, dan tambahkan password baru untuk software pentaho.



6. Klik **Next** dan tunggu sampai instalasi selesai.



7. Jika sudah, langsung buka software pentaho.



8. Tampilan software Pentaho.