FACULTY OF COMPUTING
UTM Johor Bahru

SECD2523
SECTION 10

LECTURER: ROZILAWATI BINTI DOLLAH @ MD ZAIN

LAB EXERCISE 3

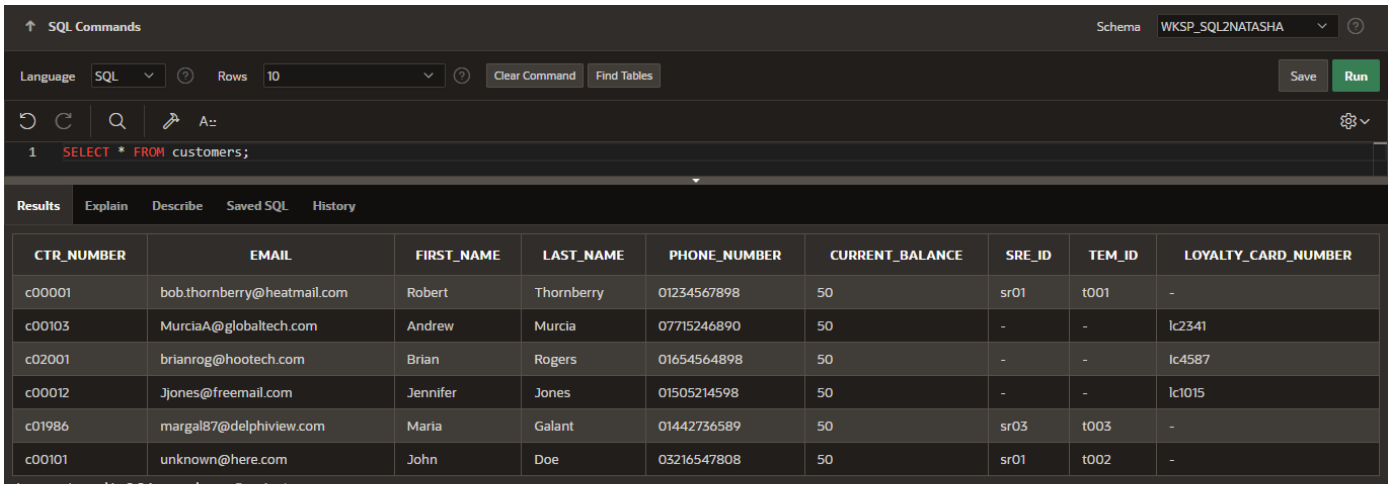
NAME: NUR AQILA NATASHA BINTI HAZIDI
MATRIC NUMBERS : A22EC0243

Section 6 Lesson 6 Exercise 1: Retrieving Data Using SELECT Write and Execute SELECT statements (S6L6 Objective 2)

In this exercise you will retrieve data that is stored in the database system by using a SELECT statement.

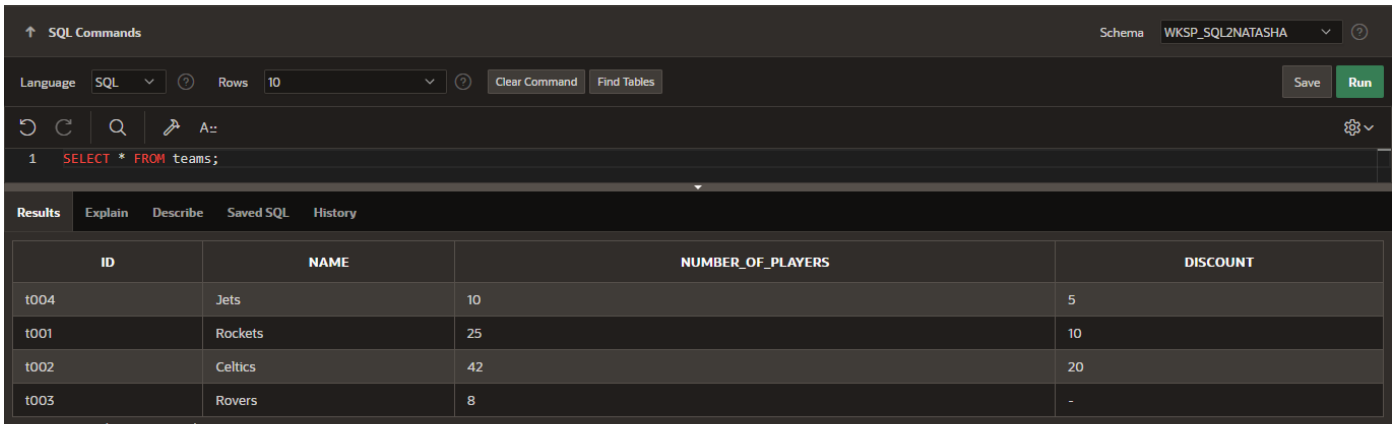
Part 1: Retrieving all columns from a table. Using the SELECT * statement show all data stored in the following tables:

1. customers.



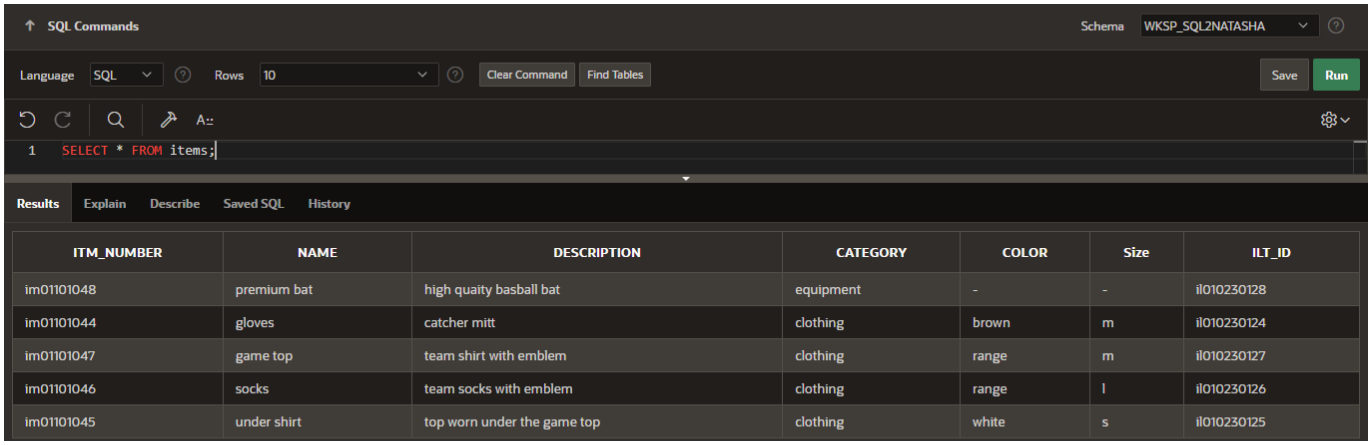
CTR_NUMBER	EMAIL	FIRST_NAME	LAST_NAME	PHONE_NUMBER	CURRENT_BALANCE	SRE_ID	TEM_ID	LOYALTY_CARD_NUMBER
c00001	bob.thornberry@heatmail.com	Robert	Thornberry	01234567898	50	sr01	t001	-
c00103	MurciaA@globaltech.com	Andrew	Murcia	07715246890	50	-	-	lc2341
c02001	brianrog@hootech.com	Brian	Rogers	01654564898	50	-	-	lc4587
c00012	Jjones@freemail.com	Jennifer	Jones	01505214598	50	-	-	lc1015
c01986	margal87@delphiview.com	Maria	Galant	01442736589	50	sr03	t003	-
c00101	unknown@here.com	John	Doe	03216547808	50	sr01	t002	-

2. teams.



ID	NAME	NUMBER_OF_PLAYERS	DISCOUNT
t004	Jets	10	5
t001	Rockets	25	10
t002	Celtics	42	20
t003	Rovers	8	-

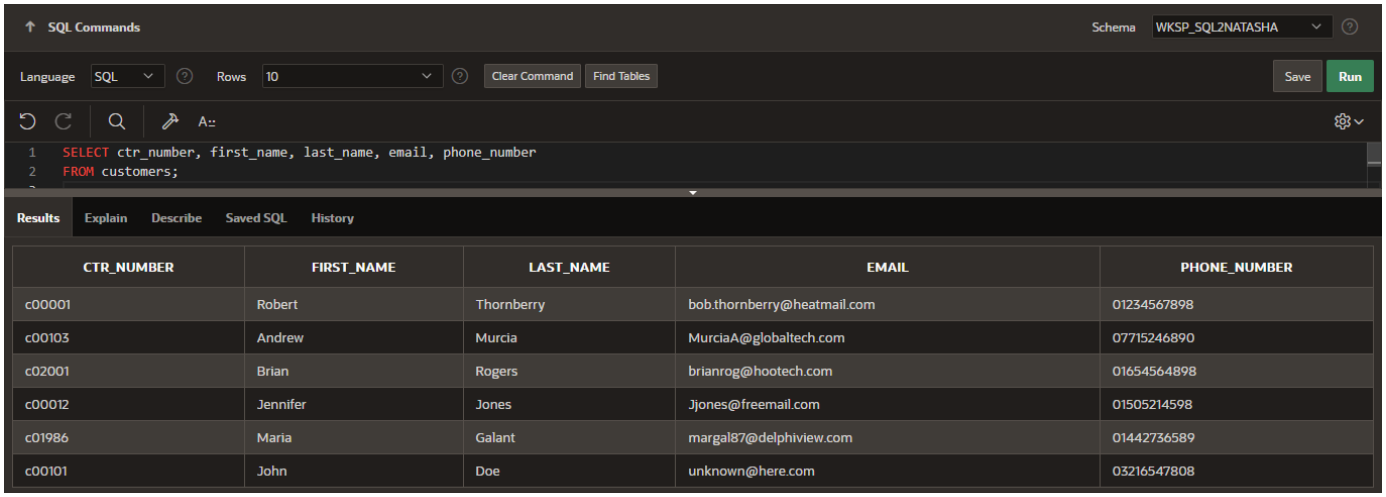
3. items.



ITM_NUMBER	NAME	DESCRIPTION	CATEGORY	COLOR	Size	ILT_ID
im01101048	premium bat	high quaity basball bat	equipment	-	-	il010230128
im01101044	gloves	catcher mitt	clothing	brown	m	il010230124
im01101047	game top	team shirt with emblem	clothing	range	m	il010230127
im01101046	socks	team socks with emblem	clothing	range	l	il010230126
im01101045	under shirt	top worn under the game top	clothing	white	s	il010230125

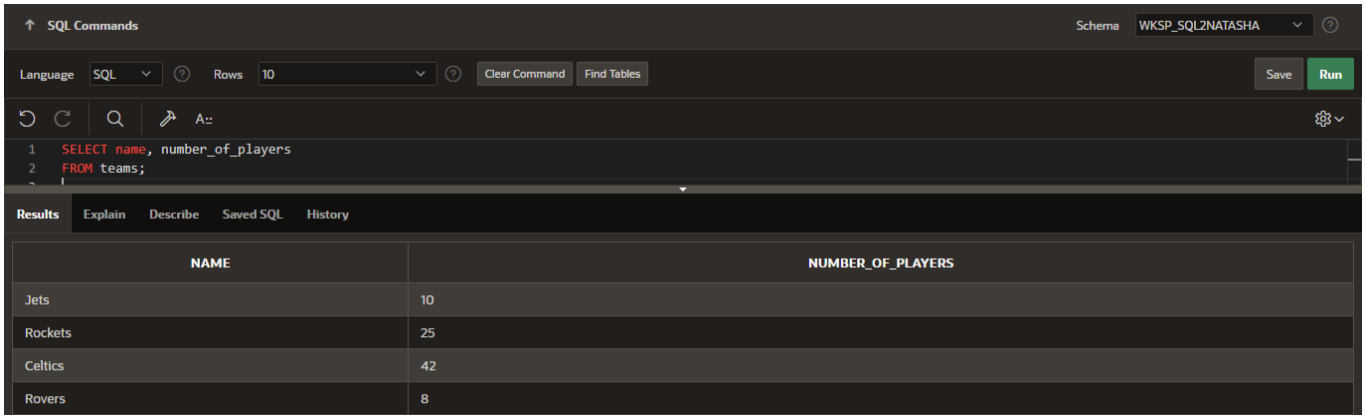
Part 2: Selecting Specific Columns

1. Display the customer number, first name, last name, email and phone number of the customers.

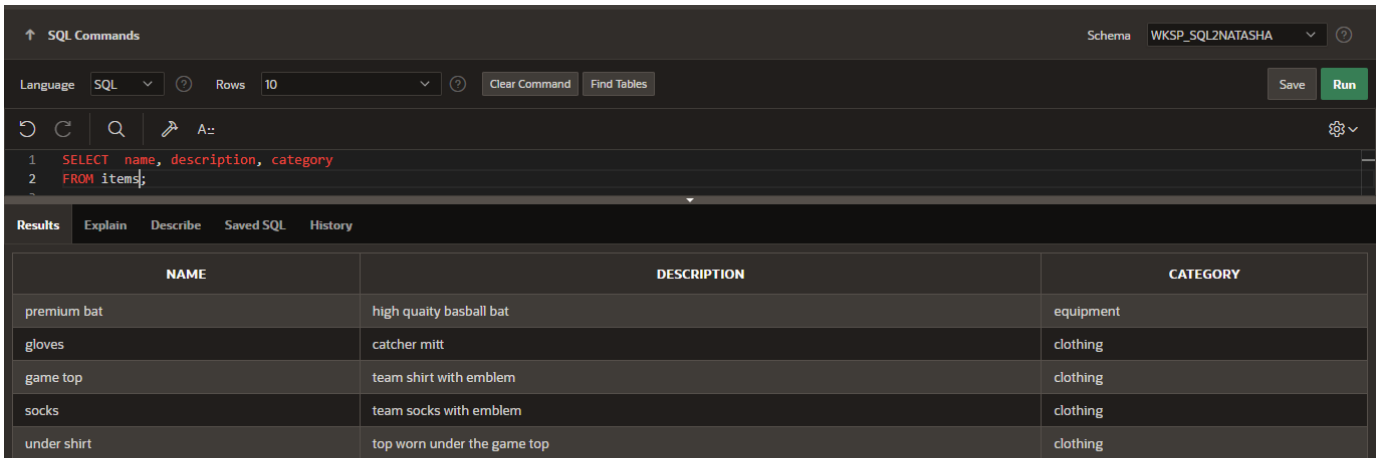


CTR_NUMBER	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER
c00001	Robert	Thornberry	bob.thornberry@heatmail.com	01234567898
c00103	Andrew	Murcia	MurciaA@globaltech.com	07715246890
c02001	Brian	Rogers	brianrog@hootech.com	01654564898
c00012	Jennifer	Jones	Jjones@freemail.com	01505214598
c01986	Maria	Galant	margal87@delphiview.com	01442736589
c00101	John	Doe	unknown@here.com	03216547808

2. Display the name and number of players for each team.



3. Display the name, description and category for every item in the table.

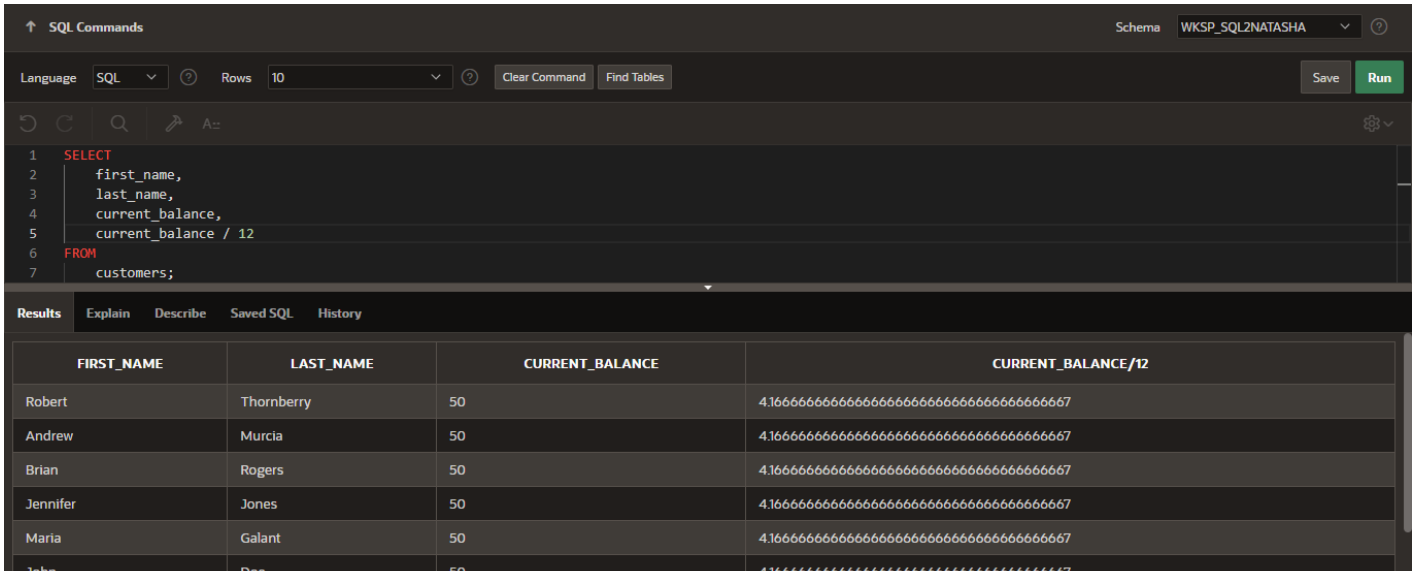


Section 6 Lesson 6 Exercise 2: Retrieving Data Using SELECT Write and Execute SELECT statements (S6L6 Objective 2)

In this exercise you will retrieve data that is stored in the database system by using a SELECT statement.

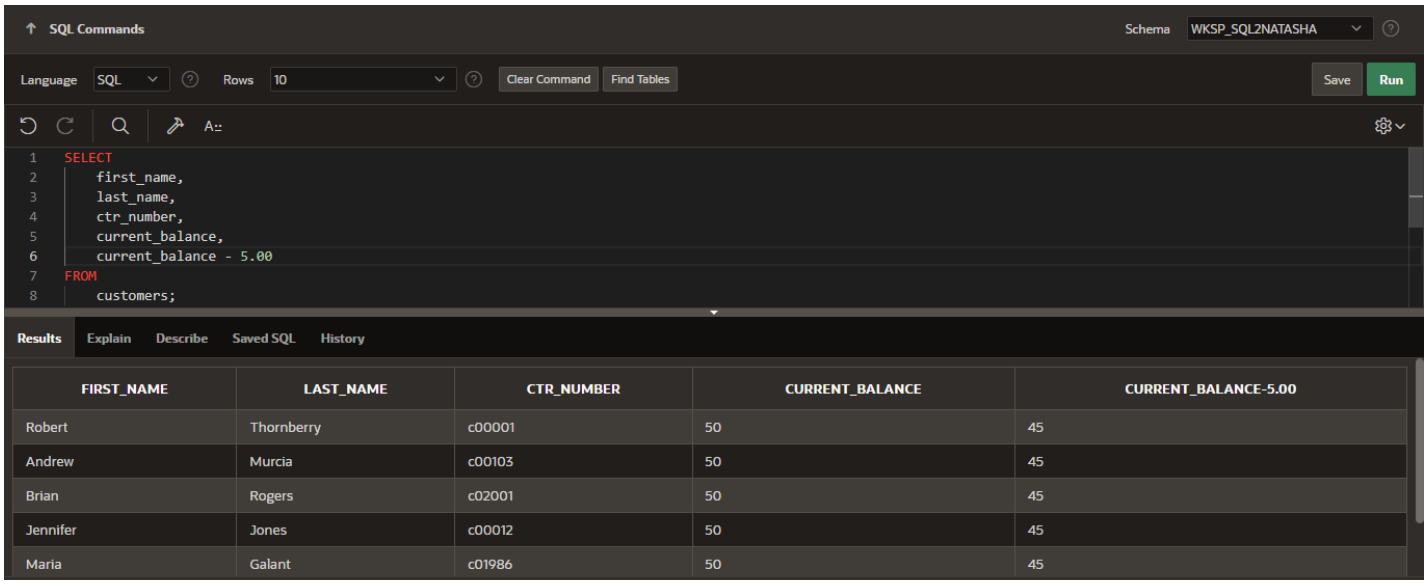
Part 1: Using Arithmetic Operators

1. Every customer has been told they can pay off their current balance over a 12 month period. Display the customer's first name, last name, current balance and monthly payment.



FIRST_NAME	LAST_NAME	CURRENT_BALANCE	CURRENT_BALANCE/12
Robert	Thornberry	50	4.16666666666666666666666666666666666667
Andrew	Murcia	50	4.16666666666666666666666666666666666667
Brian	Rogers	50	4.16666666666666666666666666666666666667
Jennifer	Jones	50	4.16666666666666666666666666666666666667
Maria	Galant	50	4.16666666666666666666666666666666666667

2. Obl is considering giving a gift card to all its customers of 5.00 that can be used to reduce their current balance. Write a query that will show the customers first name, last name, customer number, current balance and the value of their balance minus the gift value.

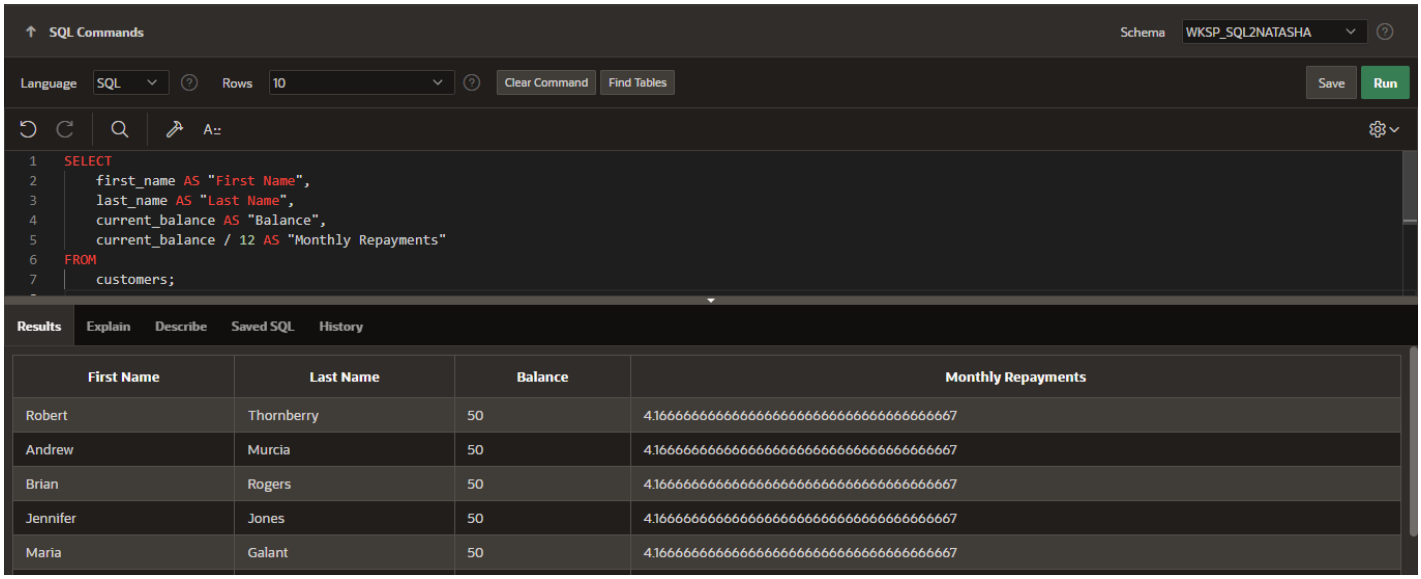


FIRST_NAME	LAST_NAME	CTR_NUMBER	CURRENT_BALANCE	CURRENT_BALANCE-5.00
Robert	Thornberry	c00001	50	45
Andrew	Murcia	c00103	50	45
Brian	Rogers	c02001	50	45
Jennifer	Jones	c00012	50	45
Maria	Galant	c01986	50	45

3. What would be the problem with implementing this scheme?

Part 2 : Using Column Aliases

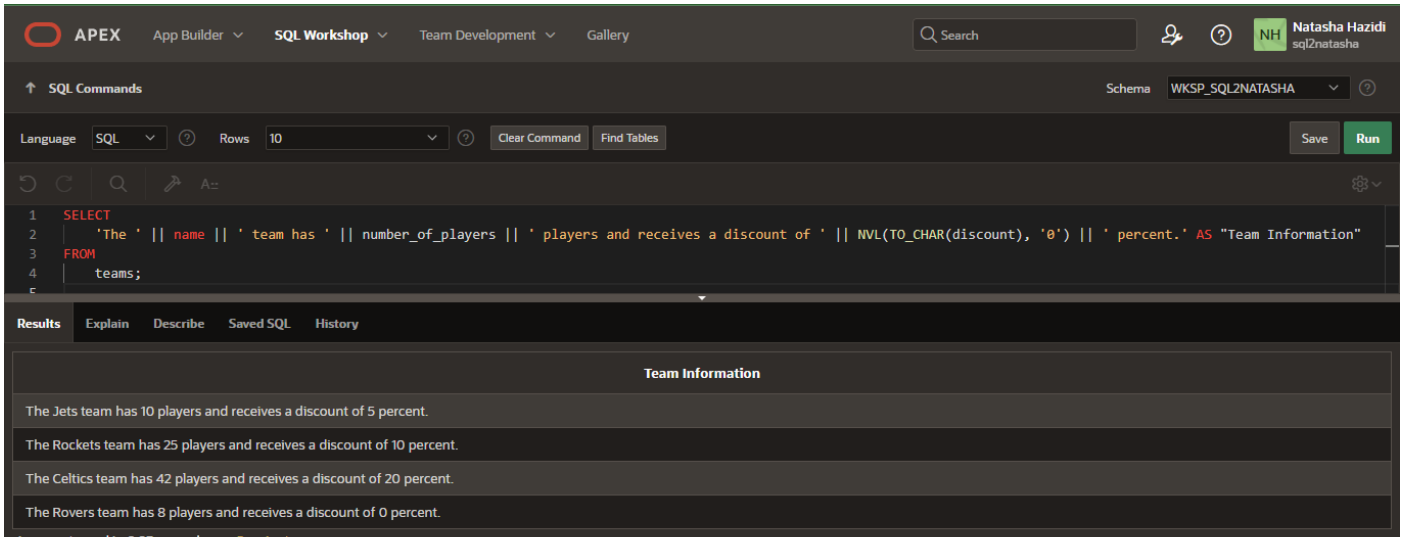
1. You previously wrote a query that displayed the customer's first name, last name, current balance and monthly payment. Rewrite the query to use First Name, Last Name, Balance and Monthly Repayments as the column aliases. The aliases are to be shown exactly as described (case sensitive).



First Name	Last Name	Balance	Monthly Repayments
Robert	Thornberry	50	4.16666666666666666666666666666666666667
Andrew	Murcia	50	4.16666666666666666666666666666666666667
Brian	Rogers	50	4.16666666666666666666666666666666666667
Jennifer	Jones	50	4.16666666666666666666666666666666666667
Maria	Galant	50	4.16666666666666666666666666666666666667

Part 3: Using Literal Character Strings

1. Write a query that will display the team information in the following format: The Rockets team has 25 players and receives a discount of 10 percent. Use Team Information as the column alias.



Team Information
The Jets team has 10 players and receives a discount of 5 percent.
The Rockets team has 25 players and receives a discount of 10 percent.
The Celtics team has 42 players and receives a discount of 20 percent.
The Rovers team has 8 players and receives a discount of 0 percent.

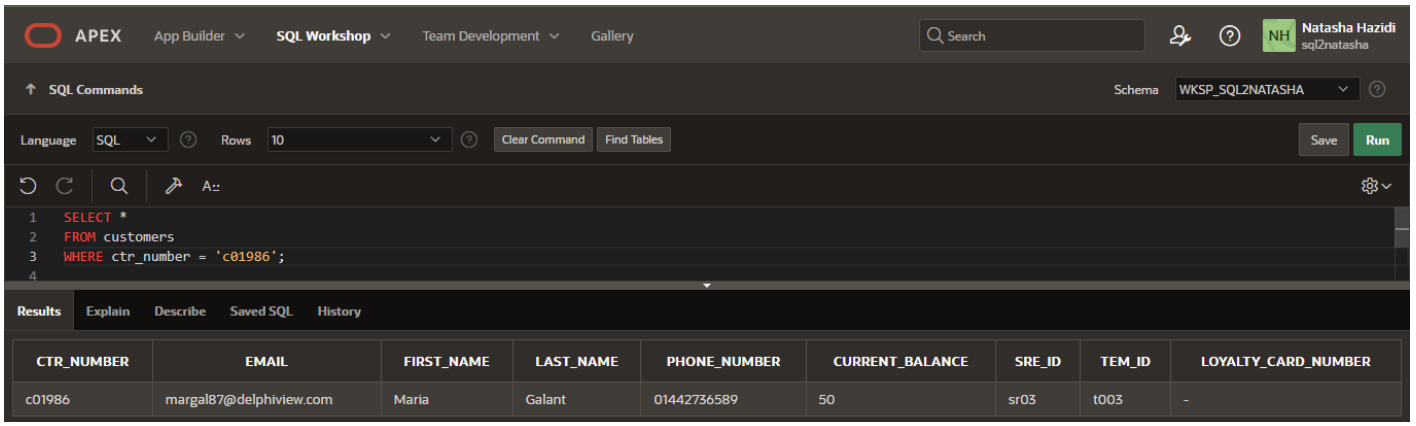
2. Why does the last team not show a discount?

Section 6 Lesson 7 Exercise 1: Restricting Data Using WHERE Limit rows using WHERE (S6L7 Objective 1)

In this exercise you will refine the data that is returned in your query by adding a WHERE clause to your SELECT statement

Part 1: Using the WHERE Clause.

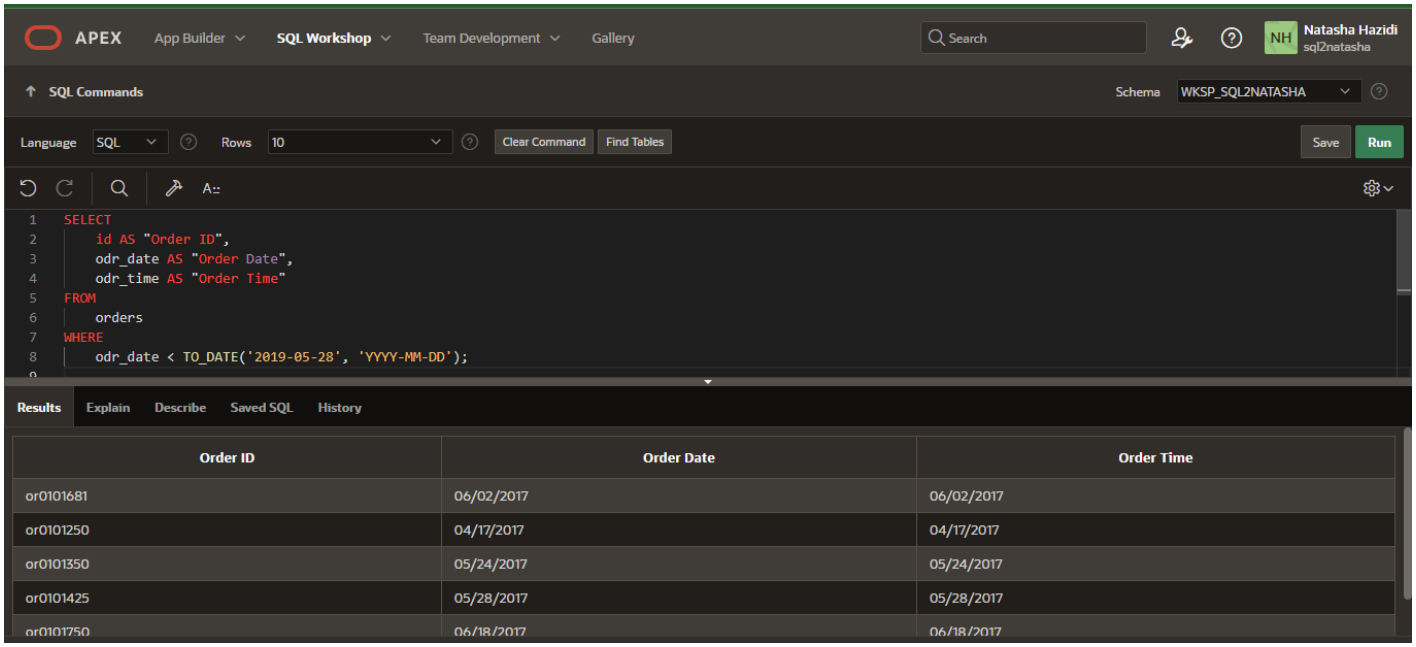
1. Using the unique customer number in the where clause display all columns for Maria Galant.



CTR_NUMBER	EMAIL	FIRST_NAME	LAST_NAME	PHONE_NUMBER	CURRENT_BALANCE	SRE_ID	TEM_ID	LOYALTY_CARD_NUMBER
c01986	margal87@delphiview.com	Maria	Galant	01442736589	50	sr03	t003	-

2. Display the first name, last name and customer number for all customers who have a current balance of greater than 100. Use an appropriate alias for your column headings.

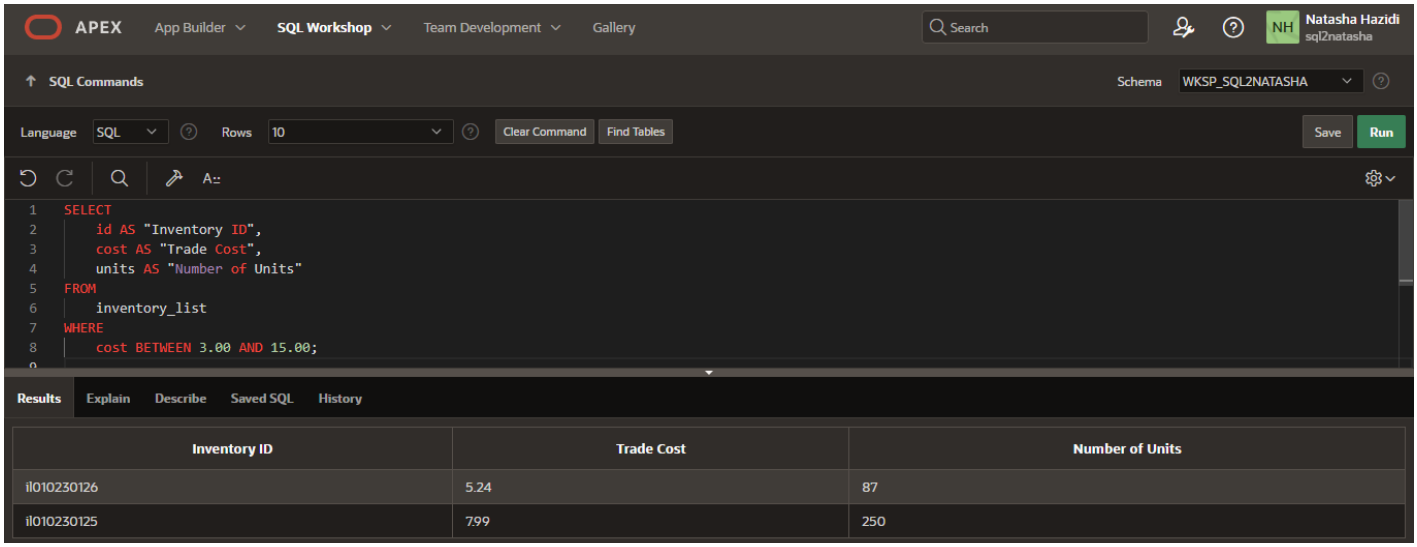
3. Display the order id, date and time of all orders that were placed before the 28th of May 2019. Use an appropriate alias for your column headings.



Order ID	Order Date	Order Time
or0101681	06/02/2017	06/02/2017
or0101250	04/17/2017	04/17/2017
or0101350	05/24/2017	05/24/2017
or0101425	05/28/2017	05/28/2017
or0101750	06/18/2017	06/18/2017

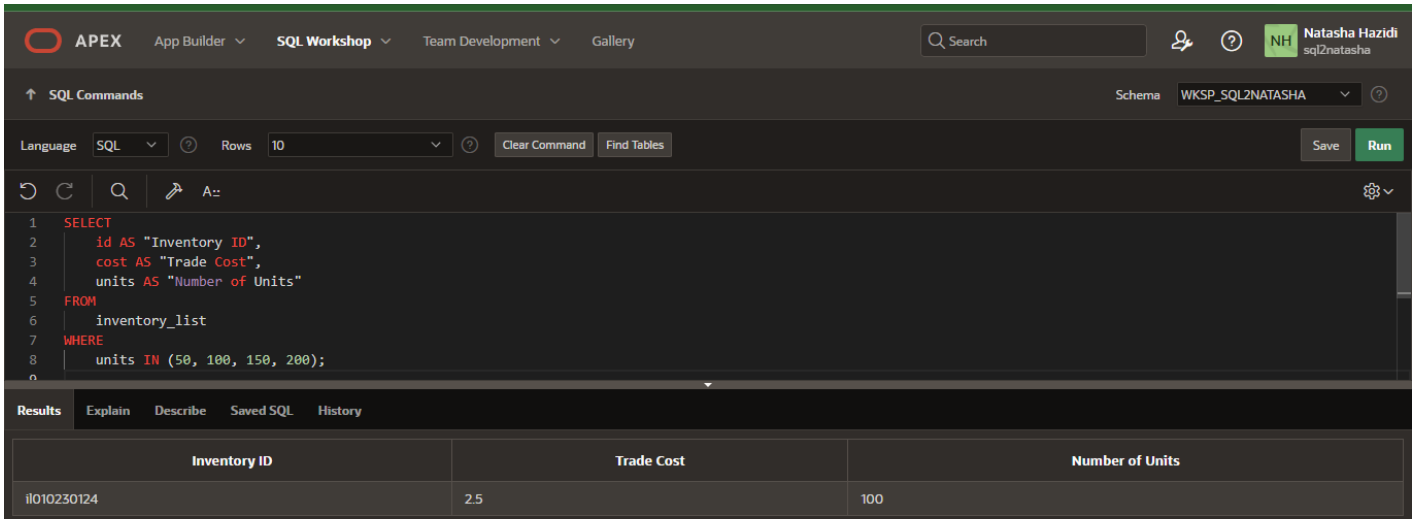
Part 2: Range Conditions: BETWEEN Operator

1. Display the inventory id, cost and number of units using appropriate aliases for all items that have a trade cost of between 3.00 and 15.00.



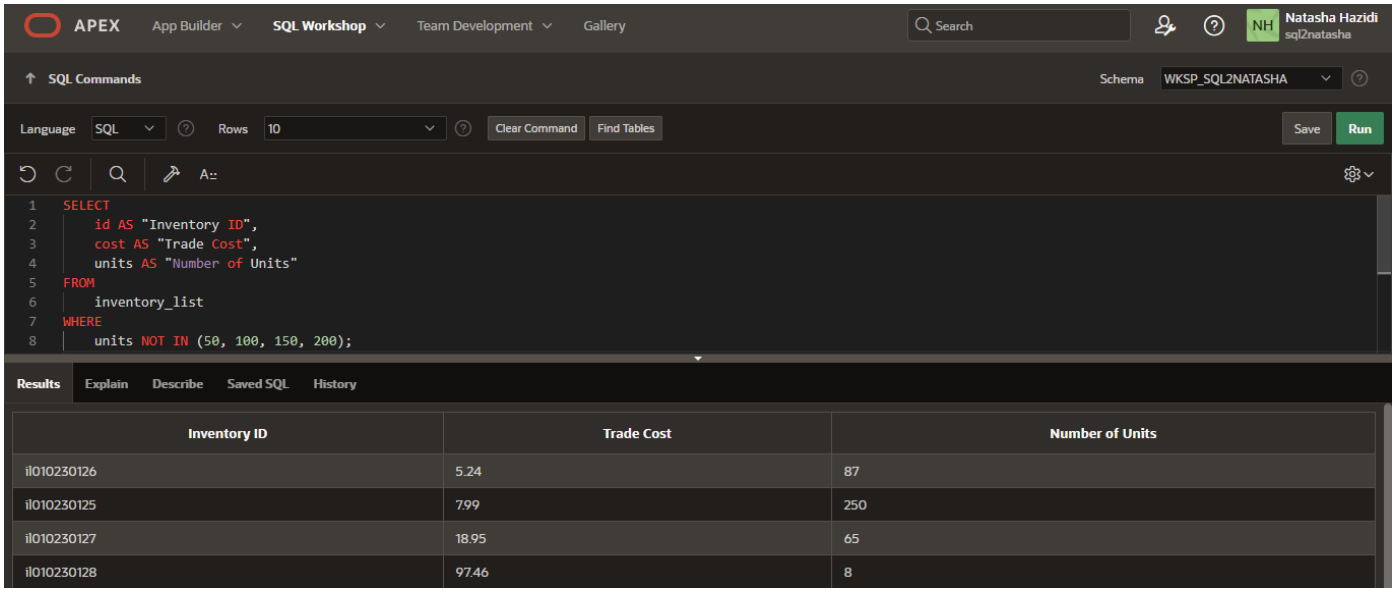
Part 3: Membership Conditions: IN Operator

1. Display the inventory id, cost and number of units using appropriate aliases for all items that have 50, 100, 150 or 200 units in stock.



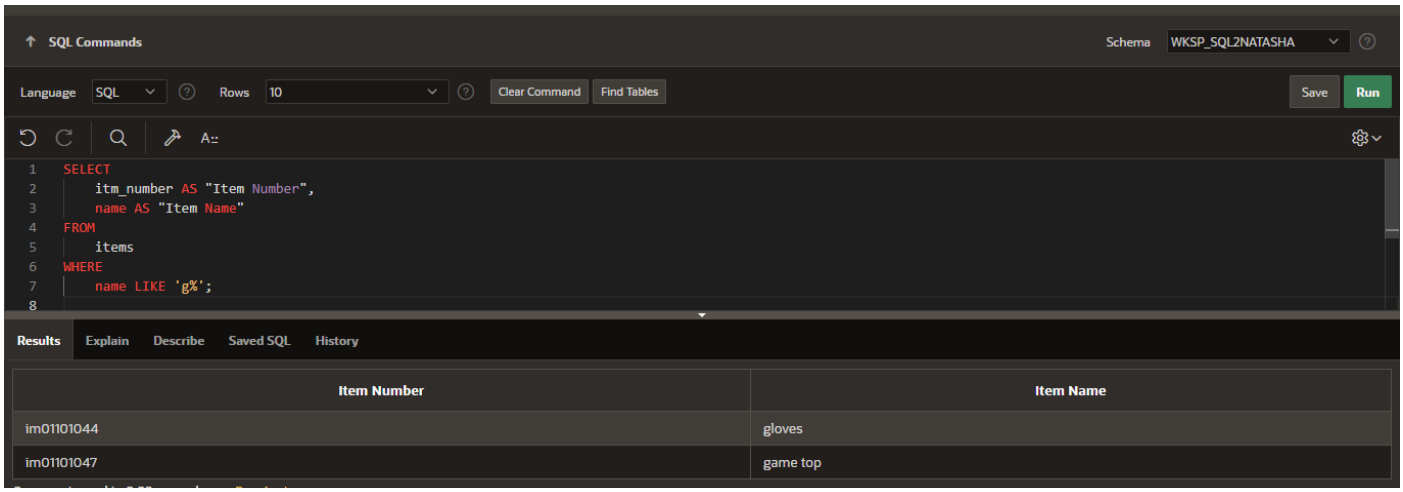
Part 4: Membership Conditions: NOT IN Operator

1. Display the inventory id, cost and number of units using appropriate aliases for all items that do not have 50, 100, 150 or 200 units in stock.



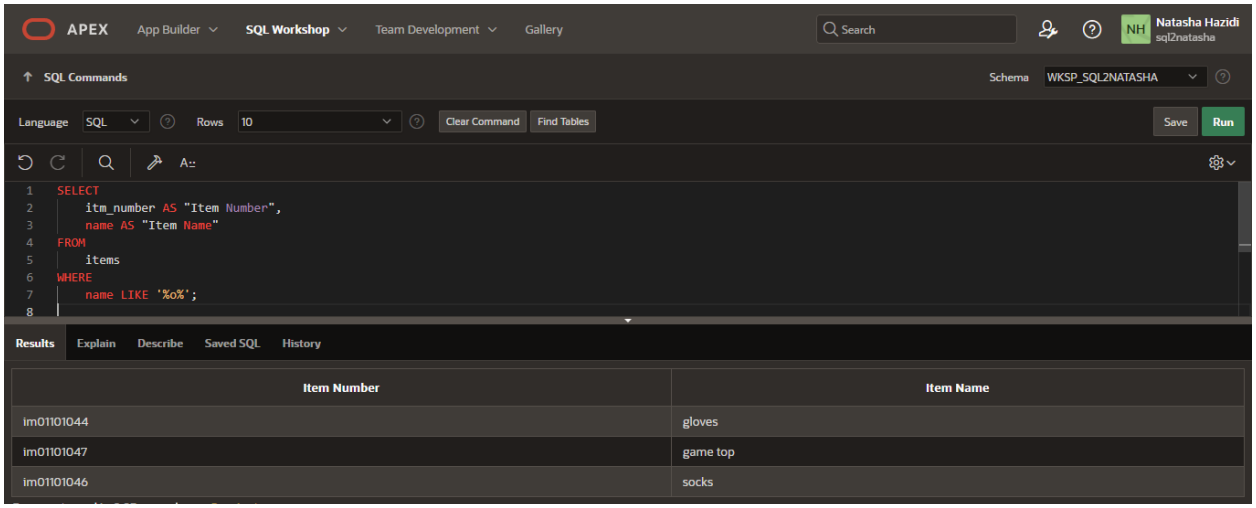
Part 5: Pattern Matching: LIKE Operator

1. Display item number and name of all items that have a name that begins with g. Use an appropriate alias for your column headings.



Part 6 : Pattern Matching: Combining Wildcard Characters with the LIKE Operator

1. Display item number and name of all items that have a name that contain a lowercase o. Use an appropriate alias for your column headings.

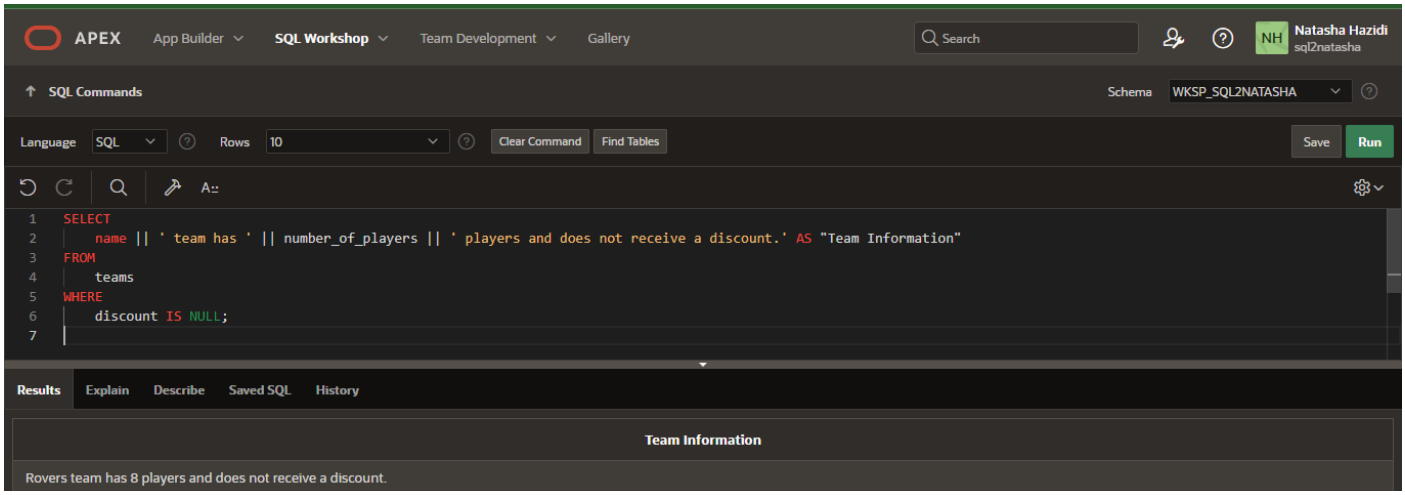

APEX
App Builder
SQL Workshop
Team Development
Gallery
Search
NH
Natasha Hazidi
sql2natasha
SQL Commands
Schema
WKSP_SQL2NATASHA
Language
SQL
Rows
10
Clear Command
Find Tables
Save
Run
SELECT
itm_number AS "Item Number",
name AS "Item Name"
FROM
items
WHERE
name LIKE '%o%';
Results
Explain
Describe
Saved SQL
History
Item Number
Item Name
im01101044
gloves
im01101047
game top
im01101046
socks

Section 6 Lesson 7 Exercise 2: Restricting Data Using WHERE Limit rows using WHERE (S6L7 Objective 1)

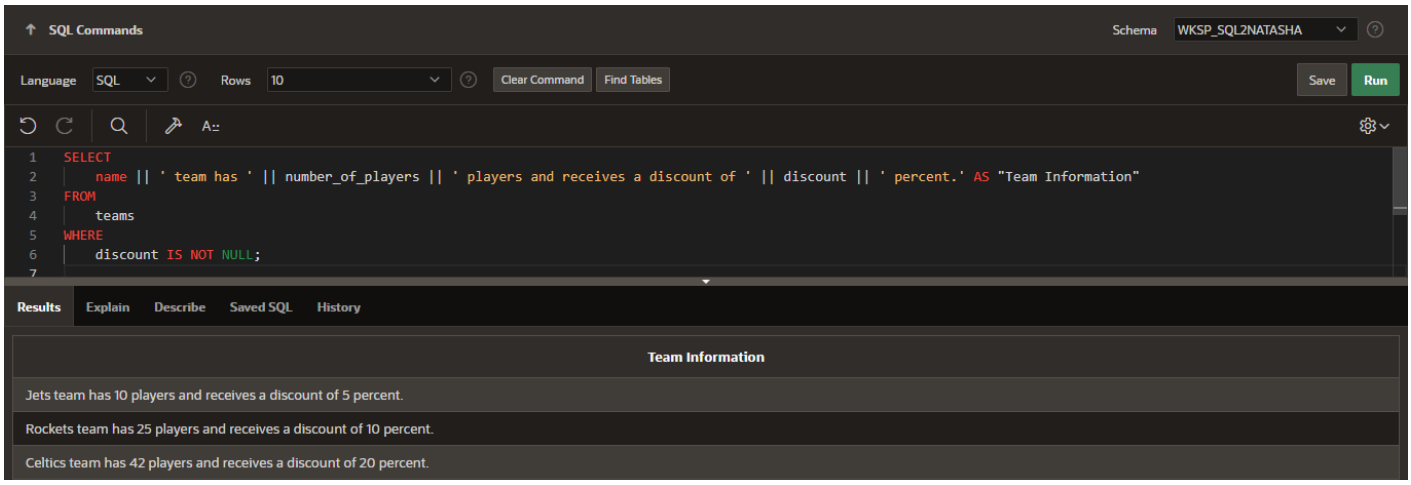
In this exercise you will refine the data that is returned in your query by adding a WHERE clause to your SELECT statement.

Part 1: Using the NULL Conditions

1. Write a query that will display information for teams that don't receive a discount in the following format: The Rovers team has 25 players and does not receive a discount. Use Team Information as the column alias.

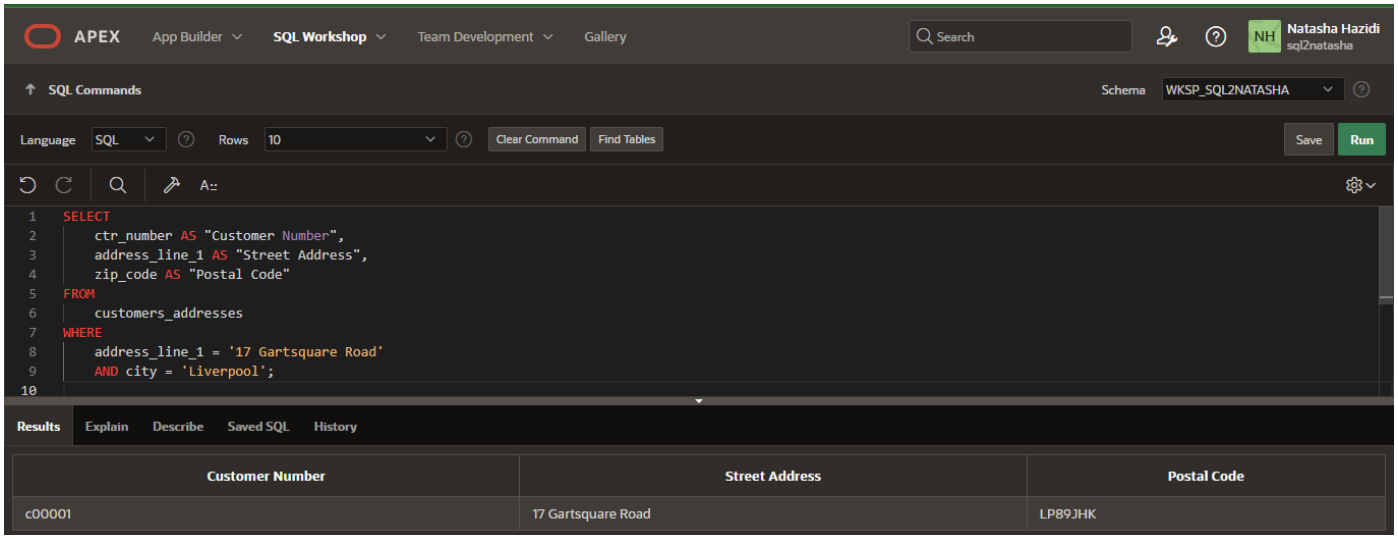


2. Write a query that will display information for only teams that receive a discount in the following format: The Rockets team has 25 players and receives a discount of 10 percent. Use Team Information as the column alias.



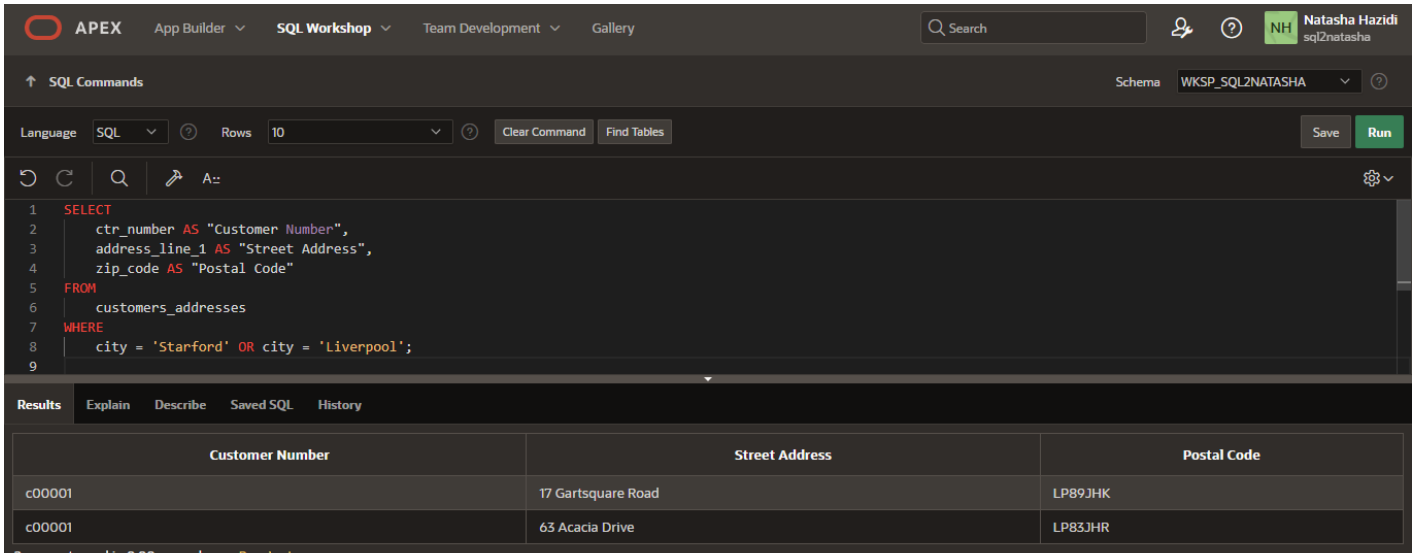
Part 2: Logical Operators: AND

1. Write a query that will display the customer number, address line 1 and postal code for customers that live in the stratford area of Liverpool. Use Customer Number, Street Address and Postal Code as the column aliases.



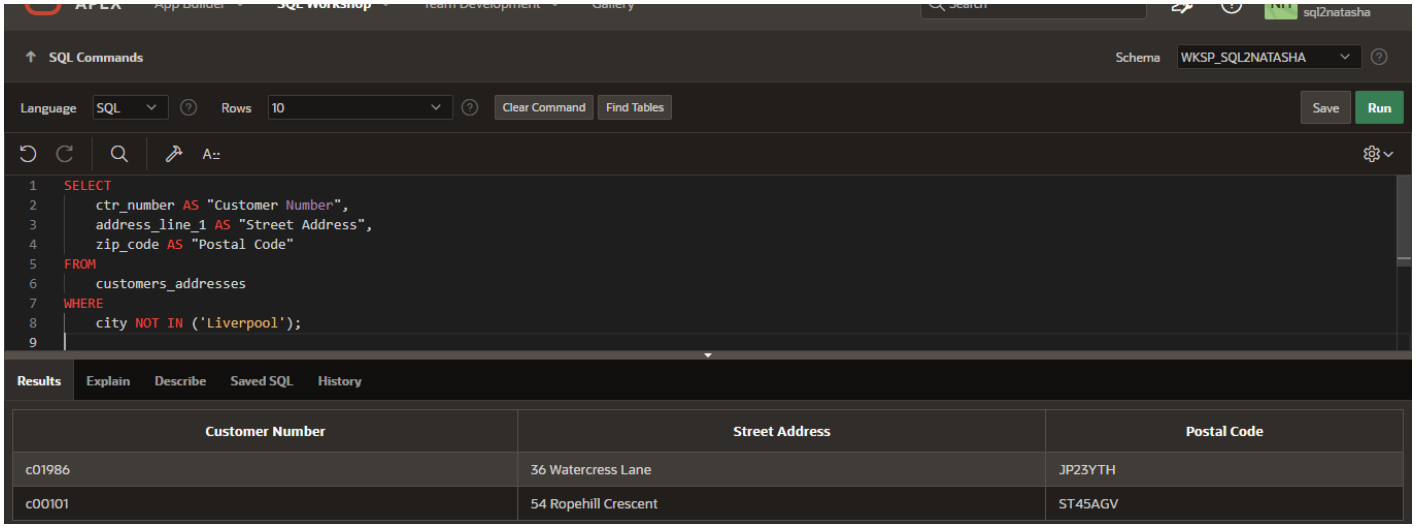
Part 3: Logical Operators: OR

1. Write a query that will display the customer number, address line 1 and postal code for customers that live in either starford or Liverpool in general. Use Customer Number, Street Address and Postal Code as the column aliases.



Part 4: Logical Operators: NOT Equal To

1. Write a query that will display the customer number, address line 1 and postal code for customers that do not live in Liverpool. Use Customer Number, Street Address and Postal Code as the column aliases.

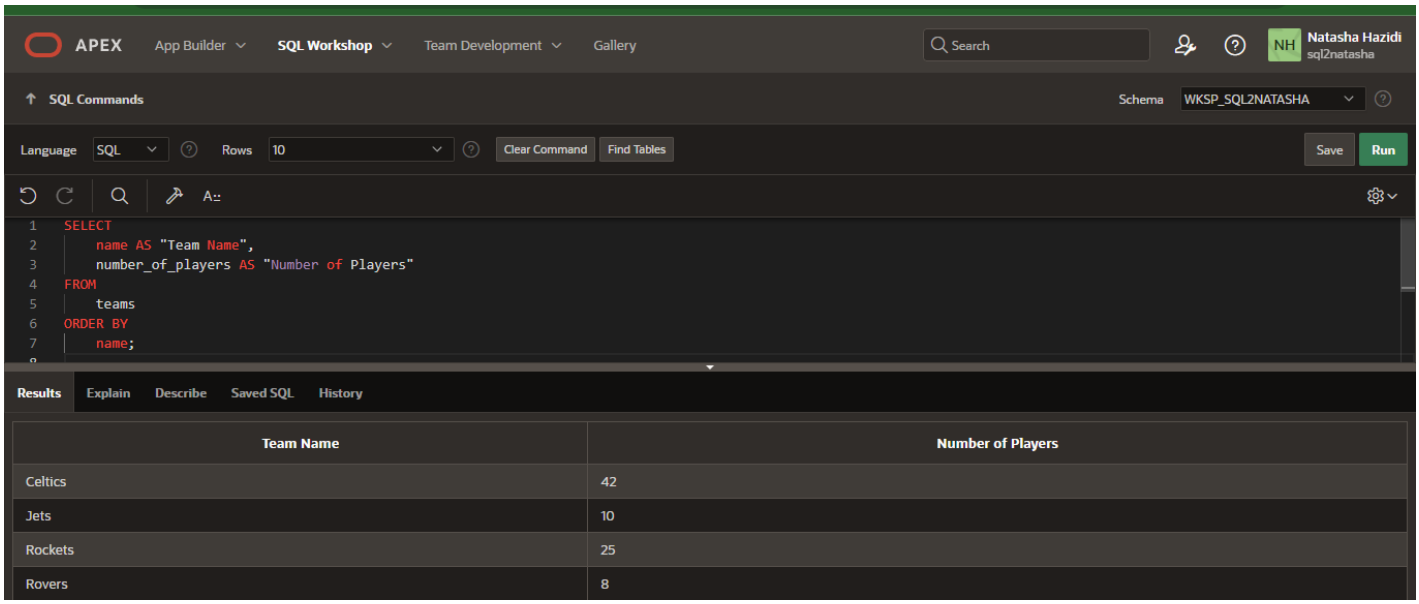


Customer Number	Street Address	Postal Code
c01986	36 Watercress Lane	JP23YTH
c00101	54 Ropehill Crescent	ST45AGV

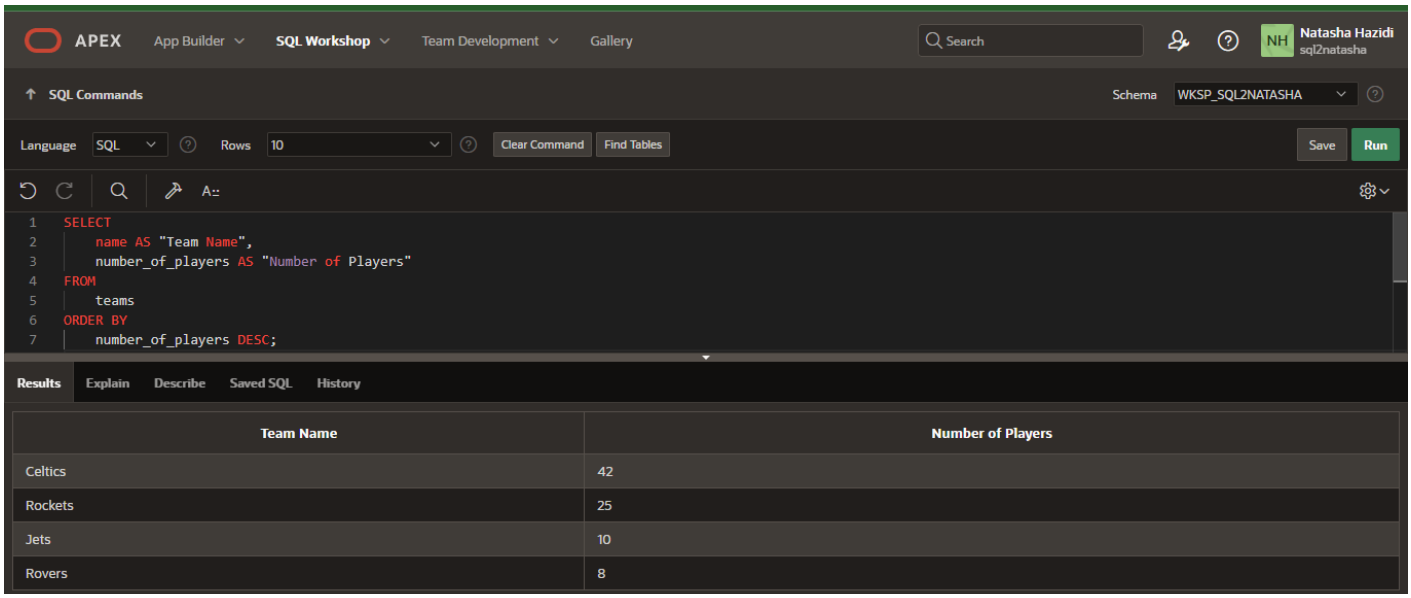
Section 6 Lesson 8 Exercise 1: Sorting Data Using ORDER BY Use the ORDER BY Clause to Sort SQL Results (S6L8 Objective 1)

In this exercise you will sort the order of the data that is returned in your query by adding an ORDER BY clause to the end of your SELECT statement.

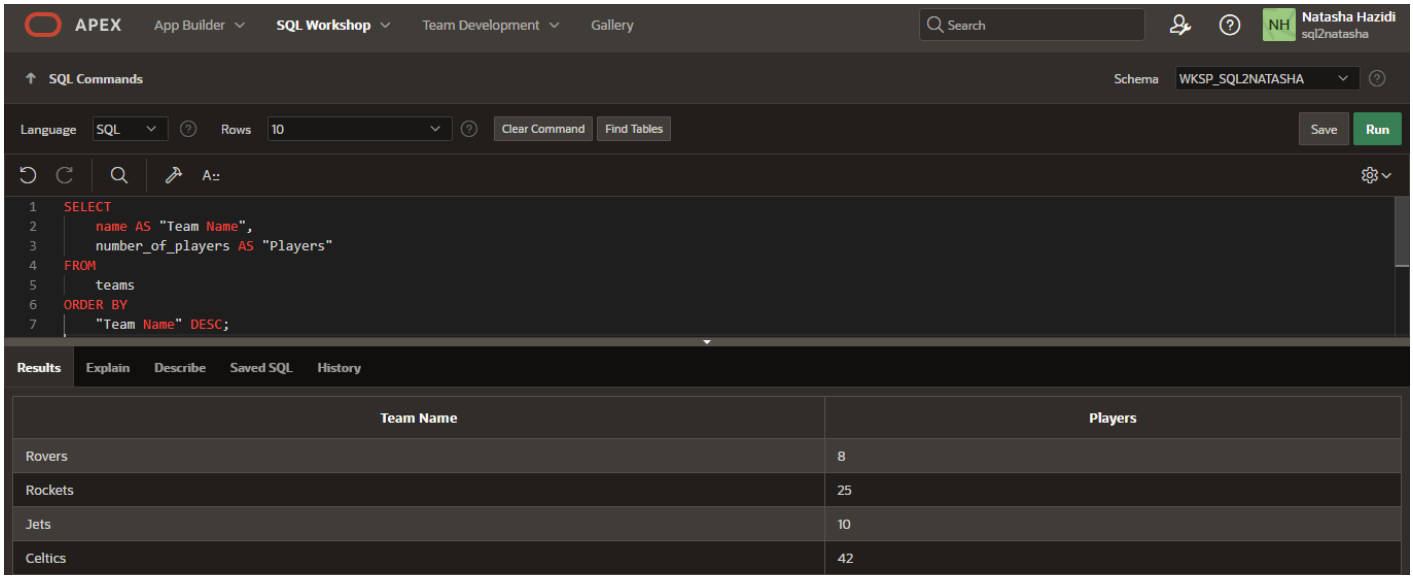
1. Display the team name and number of players alphabetically in order of team name. Use an appropriate alias for your column headings



2. Display the team name and number of players in descending order of number of players. Use an appropriate alias for your column headings.



3. Display the team name and number of players alphabetically in order of team name. Use Team Name for the name alias and Players for the number of players. Sort the output in descending order of name using the alias in the ORDER BY clause.

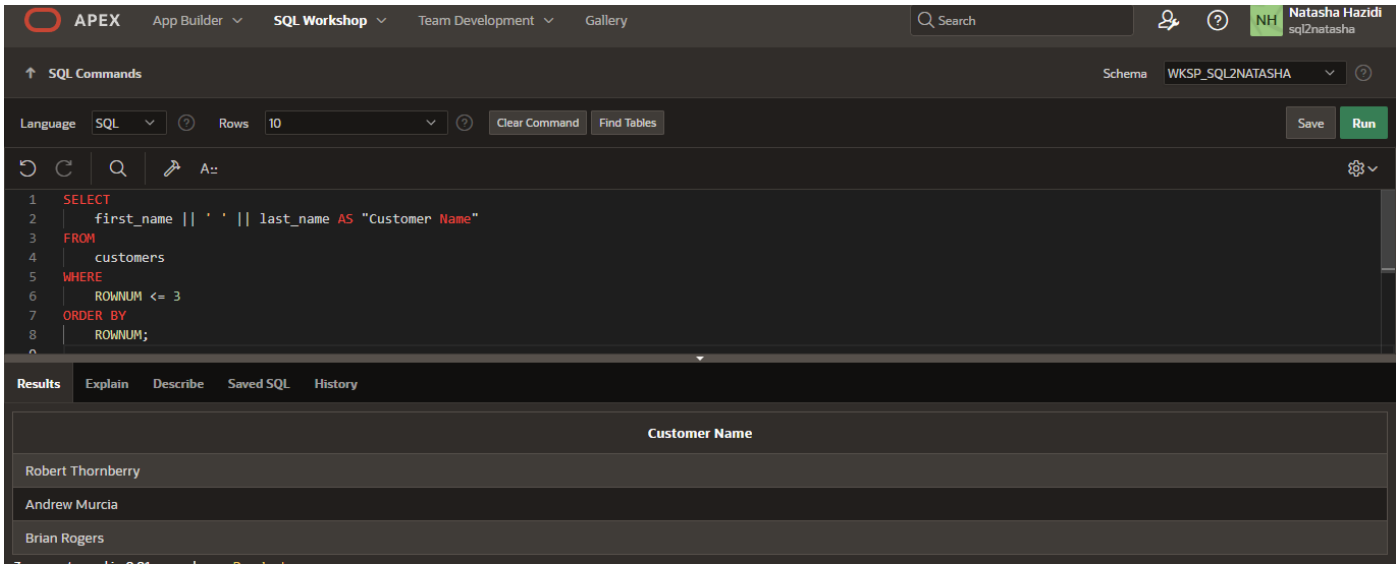


Team Name	Players
Rovers	8
Rockets	25
Jets	10
Celtics	42

Section 6 Lesson 8 Exercise 2: Sorting Data Using ORDER BY

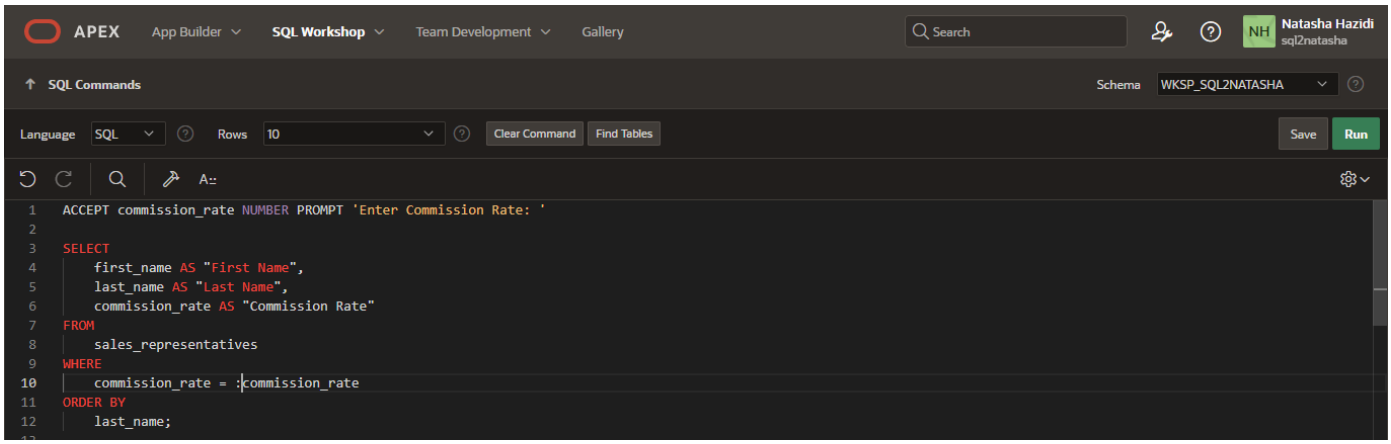
Part 1 : TOP-N-ANALYSIS (S6L8 Objective 3)

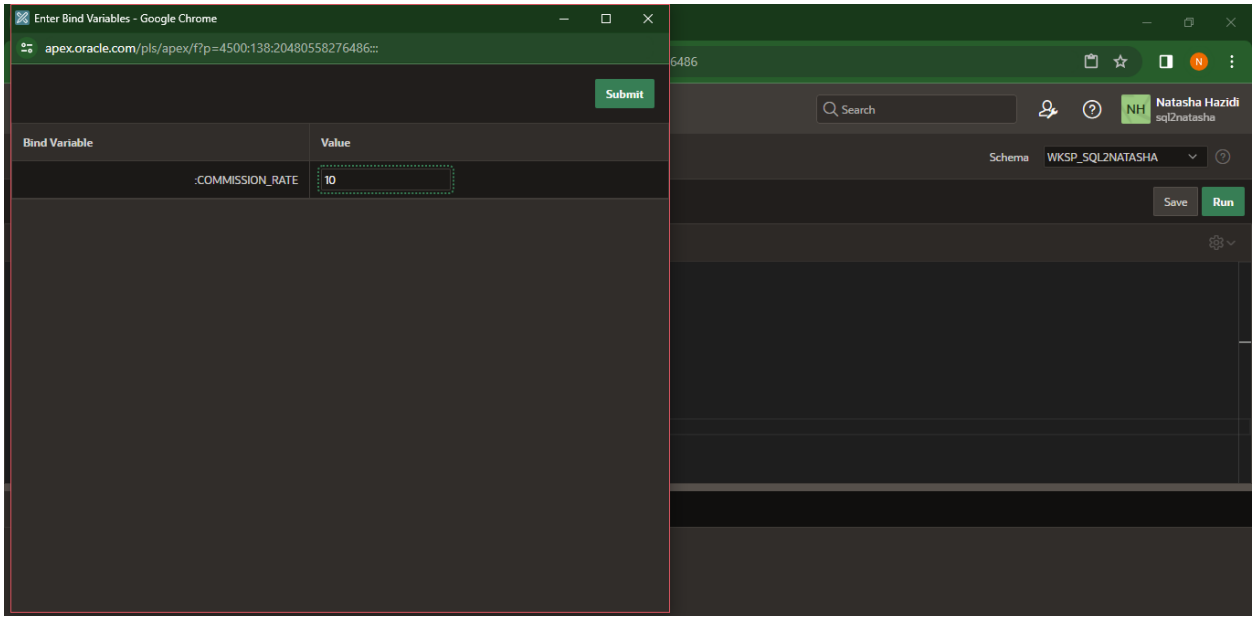
1. The customers are numbered sequentially with each new customer being assigned a higher customer number. Use TOP-N-ANALYSIS to only show the First and last name of the first three customers. Show the customers first and last name in the same column using Customer Name as the column alias.



Part 2 : Using a Substitution Variable (S6L8 Objective 4)

1. Use a substitution variable that will allow you to enter the commission rate for the sales representatives. The first and last names should be displayed to screen for any sales representatives that earn that commission rate and the output should be ordered by their last name. Use an appropriate alias for your column headings.




Enter Bind Variables - Google Chrome
apex.oracle.com/pls/apex/f?p=4500:138:20480558276486:::
Submit
Bind Variable
Value
:COMMISSION_RATE
10
6486
Search
Natasha Hazidi
sql2natasha
Schema
WKSP_SQL2NATASHA
Save
Run