

## 1. Including pre-invoice deductions in Croma detailed report

```
SELECT
    s.date,
    s.product_code,
    p.product,
    p.variant,
    s.sold_quantity,
    g.gross_price as gross_price_per_item,
    ROUND(s.sold_quantity*g.gross_price,2) as gross_price_total,
    pre.pre_invoice_discount_pct
FROM fact_sales_monthly s
JOIN dim_product p
    ON s.product_code=p.product_code
JOIN fact_gross_price g
    ON g.fiscal_year=get_fiscal_year(s.date)
    AND g.product_code=s.product_code
JOIN fact_pre_invoice_deductions as pre
    ON pre.customer_code = s.customer_code AND
    pre.fiscal_year=get_fiscal_year(s.date)
WHERE
    s.customer_code=90002002 AND
    get_fiscal_year(s.date)=2021
LIMIT 1000000;
```

Query Result:

	date	product_code	product	variant	sold_qua...	gross_price_per...	gross_price_total	pre_invoice_discount_pct
▶	2020-09-01	A0118150101	AQ Dracula HDD – 3.5 I...	Standard	202	19.0573	3849.57	0.3025
	2020-09-01	A0118150102	AQ Dracula HDD – 3.5 I...	Plus	162	21.4565	3475.95	0.3025
	2020-09-01	A0118150103	AQ Dracula HDD – 3.5 I...	Premium	193	21.7795	4203.44	0.3025
	2020-09-01	A0118150104	AQ Dracula HDD – 3.5 I...	Premium Plus	146	22.9729	3354.04	0.3025
	2020-09-01	A0219150201	AQ WereWolf NAS Inter...	Standard	149	23.6987	3531.11	0.3025
	2020-09-01	A0219150202	AQ WereWolf NAS Inter...	Plus	107	24.7312	2646.24	0.3025
	2020-09-01	A0220150203	AQ WereWolf NAS Inter...	Premium	123	23.6154	2904.69	0.3025
	2020-09-01	A0320150301	AQ Zion Saga	Standard	146	23.7223	3463.46	0.3025
	2020-09-01	A0321150302	AQ Zion Saga	Plus	236	27.1027	6396.24	0.3025
	2020-09-01	A0321150303	AQ Zion Saga	Premium	137	28.0059	3836.81	0.3025
	2020-09-01	A0418150103	AQ Mforce Gen X	Standard 3	23	19.5235	449.04	0.3025

## 2. Including all customers in the report

```
SELECT
    s.date,
    s.product_code,
    p.product,
    p.variant,
    s.sold_quantity,
    g.gross_price as gross_price_per_item,
```

```

ROUND(s.sold_quantity*g.gross_price,2) as gross_price_total,
pre.pre_invoice_discount_pct
FROM fact_sales_monthly s
JOIN dim_product p
ON s.product_code=p.product_code
JOIN fact_gross_price g
ON g.fiscal_year=get_fiscal_year(s.date)
AND g.product_code=s.product_code
JOIN fact_pre_invoice_deductions as pre
ON pre.customer_code = s.customer_code AND
pre.fiscal_year=get_fiscal_year(s.date)
WHERE
get_fiscal_year(s.date)=2021
LIMIT 1000000;

```

date	product_code	product	variant	sold_qua...	gross_price_per...	gross_price_total	pre_invoice_discount_pct
2020-09-01	A0118150101	AQ Dracula HDD - 3.5 I...	Standard	210	19.0573	399.61	0.0997
2020-09-01	A0118150101	AQ Dracula HDD - 3.5 I...	Standard	31	19.0573	590.78	0.0974
2020-09-01	A0118150101	AQ Dracula HDD - 3.5 I...	Standard	37	19.0573	705.12	0.2065
2020-09-01	A0118150101	AQ Dracula HDD - 3.5 I...	Standard	7	19.0573	133.40	0.1068
2020-09-01	A0118150101	AQ Dracula HDD - 3.5 I...	Standard	12	19.0573	228.69	0.2612
2020-09-01	A0118150101	AQ Dracula HDD - 3.5 I...	Standard	17	19.0573	323.97	0.2471
2020-09-01	A0118150101	AQ Dracula HDD - 3.5 I...	Standard	60	19.0573	1143.44	0.0858
2020-09-01	A0118150101	AQ Dracula HDD - 3.5 I...	Standard	34	19.0573	647.95	0.2450
2020-09-01	A0118150101	AQ Dracula HDD - 3.5 I...	Standard	24	19.0573	457.38	0.0736
2020-09-01	A0118150101	AQ Dracula HDD - 3.5 I...	Standard	88	19.0573	1677.04	0.2105
2020-09-01	A0118150101	AQ Dracula HDD - 3.5 I...	Standard	49	19.0573	933.81	0.0793
2020-09-01	A0118150101	AQ Dracula HDD - 3.5 I...	Standard	60	19.0573	1143.44	0.1817
2020-09-01	A0118150101	AQ Dracula HDD - 3.5 I...	Standard	7	19.0573	133.40	0.0961
2020-09-01	A0118150101	AQ Dracula HDD - 3.5 I...	Standard	21	19.0573	400.20	0.2899
2020-09-01	A0118150101	AQ Dracula HDD - 3.5 I...	Standard	37	19.0573	705.12	0.0552
2020-09-01	A0118150101	AQ Dracula HDD - 3.5 I...	Standard	70	19.0573	1334.01	0.1056

### 3. Added the fiscal year in the fact\_sales\_monthly table itself

```

SELECT
    s.date,
    s.customer_code,
    s.product_code,
    p.product, p.variant,
    s.sold_quantity,
    g.gross_price as gross_price_per_item,
    ROUND(s.sold_quantity*g.gross_price,2) as gross_price_total,
    pre.pre_invoice_discount_pct
FROM fact_sales_monthly s
JOIN dim_product p
ON s.product_code=p.product_code
JOIN fact_gross_price g
    ON g.fiscal_year=s.fiscal_year
    AND g.product_code=s.product_code

```

```

JOIN fact_pre_invoice_deductions as pre
ON pre.customer_code = s.customer_code AND
    pre.fiscal_year=s.fiscal_year
WHERE
    s.fiscal_year=2021
LIMIT 1500000;

```

date	customer_code	product_code	product	variant	sold_qua...	gross_price_per...	gross_price_total	pre_invoice_discount_pct
▶ 2020-09-01	70002017	A0118150101	AQ Dracula HDD...	Standard	248	19.0573	4726.21	0.0703
◀ 2020-09-01	70002018	A0118150101	AQ Dracula HDD...	Standard	240	19.0573	4573.75	0.2061
◀ 2020-09-01	70003181	A0118150101	AQ Dracula HDD...	Standard	31	19.0573	590.78	0.0974
◀ 2020-09-01	70003182	A0118150101	AQ Dracula HDD...	Standard	37	19.0573	705.12	0.2065
◀ 2020-09-01	70004069	A0118150101	AQ Dracula HDD...	Standard	7	19.0573	133.40	0.1068
◀ 2020-09-01	70004070	A0118150101	AQ Dracula HDD...	Standard	12	19.0573	228.69	0.2612
◀ 2020-09-01	70005163	A0118150101	AQ Dracula HDD...	Standard	17	19.0573	323.97	0.2471
◀ 2020-09-01	70006157	A0118150101	AQ Dracula HDD...	Standard	60	19.0573	1143.44	0.0858
◀ 2020-09-01	70006158	A0118150101	AQ Dracula HDD...	Standard	34	19.0573	647.95	0.2450
◀ 2020-09-01	70007198	A0118150101	AQ Dracula HDD...	Standard	24	19.0573	457.38	0.0736
◀ 2020-09-01	70007199	A0118150101	AQ Dracula HDD...	Standard	88	19.0573	1677.04	0.2105
◀ 2020-09-01	70008169	A0118150101	AQ Dracula HDD...	Standard	49	19.0573	933.81	0.0793
◀ 2020-09-01	70008170	A0118150101	AQ Dracula HDD...	Standard	60	19.0573	1143.44	0.1817
◀ 2020-09-01	70009133	A0118150101	AQ Dracula HDD...	Standard	7	19.0573	133.40	0.0961
◀ 2020-09-01	70009134	A0118150101	AQ Dracula HDD...	Standard	21	19.0573	400.20	0.2899

#### 4. Creating the view `sales\_preinv\_discount` and store all the data in like a virtual table

```

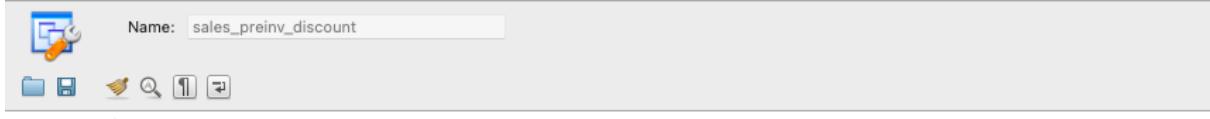
CREATE VIEW `sales_preinv_discount` AS
SELECT
    s.date,
    s.fiscal_year,
    s.customer_code,
    c.market,
    s.product_code,
    p.product,
    p.variant,
    s.sold_quantity,
    g.gross_price as gross_price_per_item,
    ROUND(s.sold_quantity*g.gross_price,2) as gross_price_total,
    pre.pre_invoice_discount_pct
FROM fact_sales_monthly s
JOIN dim_customer c
    ON s.customer_code = c.customer_code
JOIN dim_product p
    ON s.product_code=p.product_code
JOIN fact_gross_price g
    ON g.fiscal_year=s.fiscal_year
    AND g.product_code=s.product_code

```

```

JOIN fact_pre_invoice_deductions as pre
ON pre.customer_code = s.customer_code AND
    pre.fiscal_year=s.fiscal_year;

```



```

1 • CREATE
2     ALGORITHM = UNDEFINED
3     DEFINER = `root`@`localhost`
4     SQL SECURITY DEFINER
5 VIEW `sales_preinv_discount` AS
6     SELECT
7         `s`.`date` AS `date`,
8         `s`.`fiscal_year` AS `fiscal_year`,
9         `s`.`customer_code` AS `customer_code`,
10        `c`.`market` AS `market`,
11        `s`.`product_code` AS `product_code`,
12        `p`.`product` AS `product`,
13        `p`.`variant` AS `variant`,
14        `s`.`sold_quantity` AS `sold_quantity`,
15        `g`.`gross_price` AS `gross_price_per_item`,
16        ROUND((`s`.`sold_quantity` * `g`.`gross_price`),
17              2) AS `gross_price_total`,
18        `pre`.`pre_invoice_discount_pct` AS `pre_invoice_discount_pct`
19     FROM
20        (((`fact_sales_monthly` `s`
21        JOIN `dim_customer` `c` ON ((`s`.`customer_code` = `c`.`customer_code`)))
22        JOIN `dim_product` `p` ON ((`s`.`product_code` = `p`.`product_code`)))
23        JOIN `fact_gross_price` `g` ON (((`g`.`fiscal_year` = `s`.`fiscal_year`)
24            AND (`g`.`product_code` = `s`.`product_code`)))
25        JOIN `fact_pre_invoice_deductions` `pre` ON (((`pre`.`customer_code` = `s`.`customer_code`))
26            AND (`pre`.`fiscal_year` = `s`.`fiscal_year'))))

```

## 5. Now generate net\_invoice\_sales using the above created view "sales\_preinv\_discount"

```

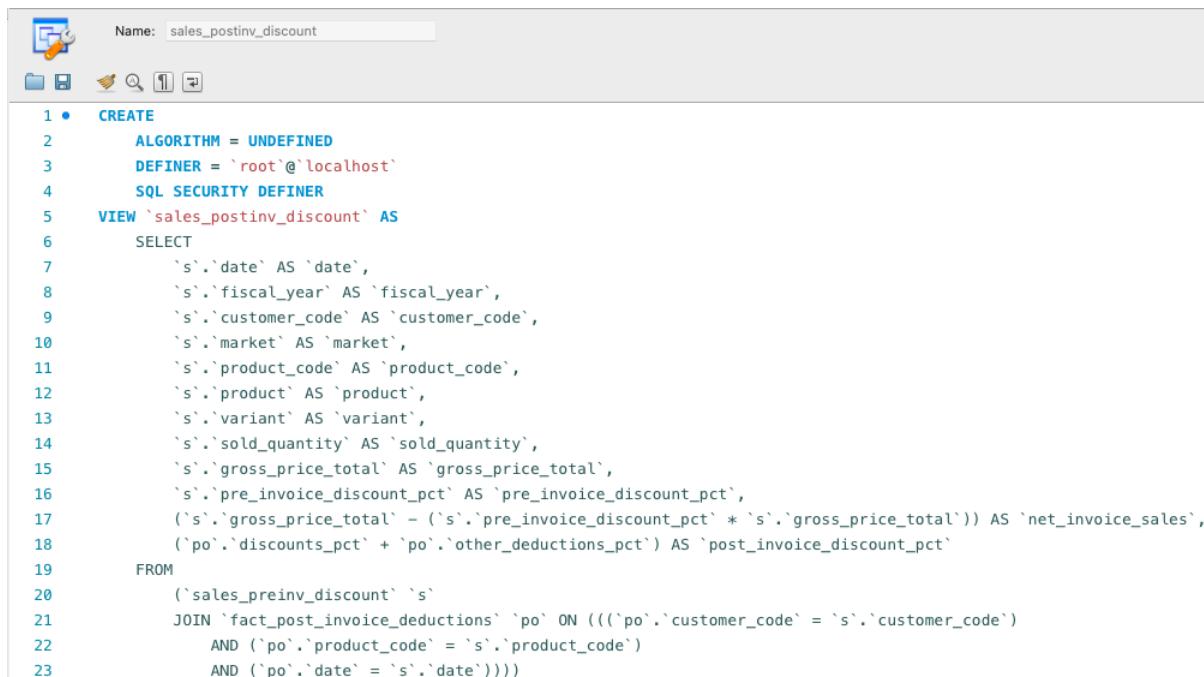
SELECT
  *,
  (gross_price_total-pre_invoice_discount_pct*gross_price_total) as
net_invoice_sales
FROM gdb0041.sales_preinv_discount;

```

date	fiscal_year	customer_code	market	product_code	product	variant	sold_quantity	gross_price_per_item	gross_price_to...	pre_invoice_discount_...	net_invoice_sales
2017-09-01	2018	70003181	Indonesia	A0118150101	AQ Dracula HDD -3.5 i...	Standard	17	15.3952	261.72	0.0536	247.691808
2017-09-01	2018	70003182	Indonesia	A0118150101	AQ Dracula HDD -3.5 i...	Standard	6	15.3952	92.37	0.2378	70.404414
2017-09-01	2018	70006157	Philippines	A0118150101	AQ Dracula HDD -3.5 i...	Standard	5	15.3952	76.98	0.1057	68.843214
2017-09-01	2018	70006158	Philippines	A0118150101	AQ Dracula HDD -3.5 i...	Standard	7	15.3952	107.77	0.1875	87.563125
2017-09-01	2018	70007198	South Korea	A0118150101	AQ Dracula HDD -3.5 i...	Standard	29	15.3952	446.46	0.0700	415.207800
2017-09-01	2018	70007199	South Korea	A0118150101	AQ Dracula HDD -3.5 i...	Standard	34	15.3952	523.44	0.2551	389.910456
2017-09-01	2018	70008169	Australia	A0118150101	AQ Dracula HDD -3.5 i...	Standard	22	15.3952	338.69	0.0953	306.412843
2017-09-01	2018	70008170	Australia	A0118150101	AQ Dracula HDD -3.5 i...	Standard	5	15.3952	76.98	0.1896	62.384592
2017-09-01	2018	70011193	France	A0118150101	AQ Dracula HDD -3.5 i...	Standard	10	15.3952	153.95	0.0521	145.929205
2017-09-01	2018	70011194	France	A0118150101	AQ Dracula HDD -3.5 i...	Standard	4	15.3952	61.58	0.2046	48.980732
2017-09-01	2018	70012042	Germany	A0118150101	AQ Dracula HDD -3.5 i...	Standard	0	15.3952	0.00	0.0984	0.000000
2017-09-01	2018	70012043	Germany	A0118150101	AQ Dracula HDD -3.5 i...	Standard	0	15.3952	0.00	0.2620	0.000000
2017-09-01	2018	70013125	Italy	A0118150101	AQ Dracula HDD -3.5 i...	Standard	1	15.3952	15.40	0.0587	14.496020
2017-09-01	2018	70013126	Italy	A0118150101	AQ Dracula HDD -3.5 i...	Standard	1	15.3952	15.40	0.2501	11.548460
2017-09-01	2018	70016178	Poland	A0118150101	AQ Dracula HDD -3.5 i...	Standard	1	15.3952	15.40	0.1937	12.417020

## 6. Create a view for post invoice deductions: `sales\_postinv\_discount`

```
CREATE VIEW `sales_postinv_discount` AS
SELECT
    s.date, s.fiscal_year,
    s.customer_code, s.market,
    s.product_code, s.product, s.variant,
    s.sold_quantity, s.gross_price_total,
    s.pre_invoice_discount_pct,
    (s.gross_price_total-s.pre_invoice_discount_pct*s.gross_price_total) as
net_invoice_sales,
    (po.discounts_pct+po.other_deductions_pct) as post_invoice_discount_pct
FROM sales_preinv_discount s
JOIN fact_post_invoice_deductions po
    ON po.customer_code = s.customer_code AND
    po.product_code = s.product_code AND
    po.date = s.date;
```



The screenshot shows the MySQL Workbench interface with the following details:

- Name:** sales\_postinv\_discount
- Operations:** CREATE
- ALGORITHM:** UNDEFINED
- DEFINER:** `root`@`localhost`
- SQL SECURITY:** DEFINER
- VIEW:** `sales\_postinv\_discount` AS
- SELECT:** A list of columns from the `sales\_preinv\_discount` and `fact\_post\_invoice\_deductions` tables, including date, fiscal year, customer code, market, product code, product, variant, sold quantity, gross price total, pre invoice discount pct, net invoice sales, and post invoice discount pct.
- FROM:** sales\_preinv\_discount s JOIN fact\_post\_invoice\_deductions po ON po.customer\_code = s.customer\_code AND po.product\_code = s.product\_code AND po.date = s.date

## 7. Create a report for net sales post invoice

```
SELECT
    *,
    net_invoice_sales*(1-post_invoice_discount_pct) as net_sales
FROM gdb0041.sales_postinv_discount;
```

date	fiscal_year	customer_...	market	product_co...	product	variant	sold_q...	gross_price_to...	pre_invoice_discount_...	net_invoice_sal...	post_invoice...	net_sales
► 2017-09-01	2018	90027207	Brazil	A0118150101	AQ Dracula HDD - 3.5...	Standard 4	61.58	0.2803	44.319126	0.3905	27.0125072970	
2017-11-01	2018	90027207	Brazil	A0118150101	AQ Dracula HDD - 3.5...	Standard 16	246.32	0.2803	177.276504	0.4139	103.9017589944	
2017-12-01	2018	90027207	Brazil	A0118150101	AQ Dracula HDD - 3.5...	Standard 4	61.58	0.2803	44.319126	0.3295	29.7159739830	
2018-01-01	2018	90027207	Brazil	A0118150101	AQ Dracula HDD - 3.5...	Standard 6	92.37	0.2803	66.478689	0.3244	44.9130022884	
2018-03-01	2018	90027207	Brazil	A0118150101	AQ Dracula HDD - 3.5...	Standard 9	138.56	0.2803	99.721632	0.3766	62.1664653888	
2018-04-01	2018	90027207	Brazil	A0118150101	AQ Dracula HDD - 3.5...	Standard 6	92.37	0.2803	66.478689	0.3615	42.4466429265	
2018-05-01	2018	90027207	Brazil	A0118150101	AQ Dracula HDD - 3.5...	Standard 7	107.77	0.2803	77.562069	0.3173	52.9516245063	
2018-07-01	2018	90027207	Brazil	A0118150101	AQ Dracula HDD - 3.5...	Standard 10	153.95	0.2803	110.797815	0.3501	72.0074999685	
2018-08-01	2018	90027207	Brazil	A0118150101	AQ Dracula HDD - 3.5...	Standard 6	92.37	0.2803	66.478689	0.3740	41.6156593140	
2017-09-01	2018	90023030	Canada	A0118150101	AQ Dracula HDD - 3.5...	Standard 4	61.58	0.2117	48.543514	0.2863	34.6455059418	
2017-10-01	2018	90023030	Canada	A0118150101	AQ Dracula HDD - 3.5...	Standard 2	30.79	0.2117	24.271757	0.2851	17.3518790793	
2017-12-01	2018	90023030	Canada	A0118150101	AQ Dracula HDD - 3.5...	Standard 3	46.19	0.2117	36.411577	0.2882	25.9177605086	
2018-01-01	2018	90023030	Canada	A0118150101	AQ Dracula HDD - 3.5...	Standard 5	76.98	0.2117	60.683334	0.3334	40.4515104444	
2018-02-01	2018	90023030	Canada	A0118150101	AQ Dracula HDD - 3.5...	Standard 1	15.40	0.2117	12.139820	0.3296	8.1385353280	
2018-04-01	2018	90023030	Canada	A0118150101	AQ Dracula HDD - 3.5...	Standard 1	15.40	0.2117	12.139820	0.2901	8.6180582180	

8.Finally creating the view `net\_sales` which inbuiltly use/include all the previous created view and gives the final result

```
CREATE VIEW `net_sales` AS
SELECT
  *,
  net_invoice_sales*(1-post_invoice_discount_pct) as net_sales
FROM gdb0041.sales_postinv_discount;
```

Query Result:

date	fiscal_year	customer_...	market	product_co...	product	variant	sold_q...	gross_price_to...	pre_invoice_discount_...	net_invoice_sal...	post_invoice...	net_sales
► 2017-09-01	2018	90027207	Brazil	A0118150101	AQ Dracula HDD - 3.5...	Standard 4	61.58	0.2803	44.319126	0.3905	27.0125072970	
2017-11-01	2018	90027207	Brazil	A0118150101	AQ Dracula HDD - 3.5...	Standard 16	246.32	0.2803	177.276504	0.4139	103.9017589944	
2017-12-01	2018	90027207	Brazil	A0118150101	AQ Dracula HDD - 3.5...	Standard 4	61.58	0.2803	44.319126	0.3295	29.7159739830	
2018-01-01	2018	90027207	Brazil	A0118150101	AQ Dracula HDD - 3.5...	Standard 6	92.37	0.2803	66.478689	0.3244	44.9130022884	
2018-03-01	2018	90027207	Brazil	A0118150101	AQ Dracula HDD - 3.5...	Standard 9	138.56	0.2803	99.721632	0.3766	62.1664653888	
2018-04-01	2018	90027207	Brazil	A0118150101	AQ Dracula HDD - 3.5...	Standard 6	92.37	0.2803	66.478689	0.3615	42.4466429265	
2018-05-01	2018	90027207	Brazil	A0118150101	AQ Dracula HDD - 3.5...	Standard 7	107.77	0.2803	77.562069	0.3173	52.9516245063	
2018-07-01	2018	90027207	Brazil	A0118150101	AQ Dracula HDD - 3.5...	Standard 10	153.95	0.2803	110.797815	0.3501	72.0074999685	
2018-08-01	2018	90027207	Brazil	A0118150101	AQ Dracula HDD - 3.5...	Standard 6	92.37	0.2803	66.478689	0.3740	41.6156593140	
2017-09-01	2018	90023030	Canada	A0118150101	AQ Dracula HDD - 3.5...	Standard 4	61.58	0.2117	48.543514	0.2863	34.6455059418	
2017-10-01	2018	90023030	Canada	A0118150101	AQ Dracula HDD - 3.5...	Standard 2	30.79	0.2117	24.271757	0.2851	17.3518790793	
2017-12-01	2018	90023030	Canada	A0118150101	AQ Dracula HDD - 3.5...	Standard 3	46.19	0.2117	36.411577	0.2882	25.9177605086	
2018-01-01	2018	90023030	Canada	A0118150101	AQ Dracula HDD - 3.5...	Standard 5	76.98	0.2117	60.683334	0.3334	40.4515104444	
2018-02-01	2018	90023030	Canada	A0118150101	AQ Dracula HDD - 3.5...	Standard 1	15.40	0.2117	12.139820	0.3296	8.1385353280	
2018-04-01	2018	90023030	Canada	A0118150101	AQ Dracula HDD - 3.5...	Standard 1	15.40	0.2117	12.139820	0.2901	8.6180582180	