

1. Getting the customer code of Croma India

```
SELECT *  
FROM dim_customer  
WHERE customer like "%croma%"  
AND market="india";
```

Query Result:

	customer_code	customer	platform	channel	market	sub_zone	region
▶	90002002	Croma	Brick & Mortar	Retailer	India	India	APAC

2. Getting all the sales transaction data from fact_sales_monthly table for (croma: 90002002) in the fiscal_year 2021

```
SELECT * FROM fact_sales_monthly  
WHERE  
customer_code=90002002 AND  
YEAR(DATE_ADD(date, INTERVAL 4 MONTH))=2021  
ORDER BY date asc  
LIMIT 100000;
```

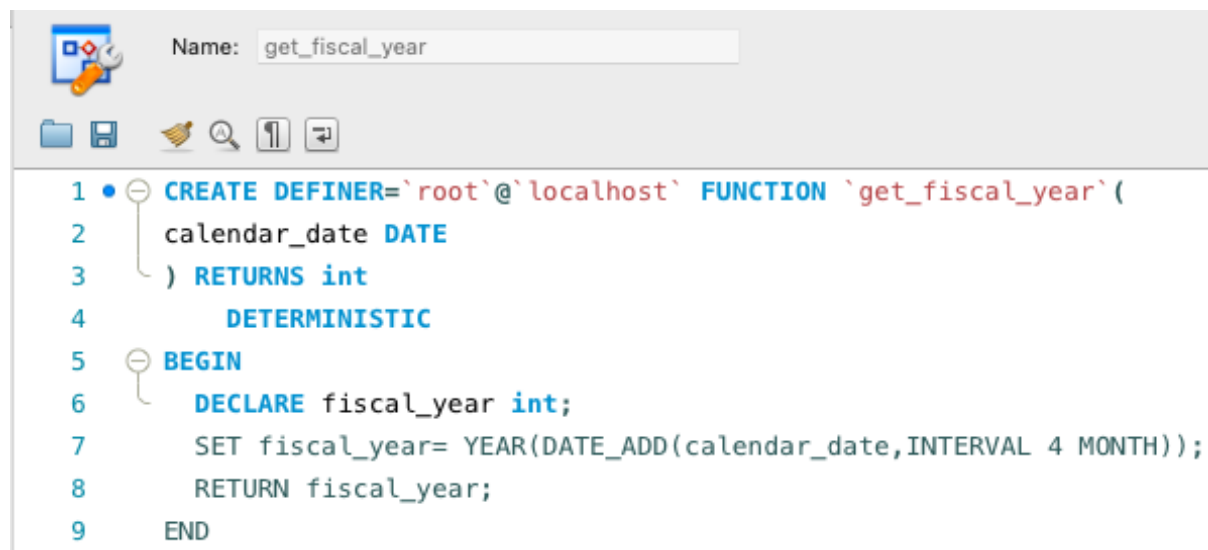
Query Result:

	date	fiscal_year	product_code	customer_code	sold_quantity
▶	2020-09-01	2021	A0118150101	90002002	202
▢	2020-09-01	2021	A0118150102	90002002	162
▢	2020-09-01	2021	A0118150103	90002002	193
▢	2020-09-01	2021	A0118150104	90002002	146
▢	2020-09-01	2021	A0219150201	90002002	149
▢	2020-09-01	2021	A0219150202	90002002	107
▢	2020-09-01	2021	A0220150203	90002002	123
▢	2020-09-01	2021	A0320150301	90002002	146
▢	2020-09-01	2021	A0321150302	90002002	236
▢	2020-09-01	2021	A0321150303	90002002	137
▢	2020-09-01	2021	A0418150103	90002002	23

3. Create a function 'get_fiscal_year' to get fiscal year by passing the date

```
CREATE FUNCTION `get_fiscal_year`(calendar_date DATE)
RETURNS int
DETERMINISTIC
BEGIN
DECLARE fiscal_year INT;
SET fiscal_year = YEAR(DATE_ADD(calendar_date, INTERVAL 4 MONTH));
RETURN fiscal_year;
END
```

Query Result:

A screenshot of a SQL IDE window. The title bar shows a folder icon, a save icon, a search icon, and a refresh icon. The main text area contains the following SQL code:

```
1 • CREATE DEFINER=`root`@`localhost` FUNCTION `get_fiscal_year`(  
2   calendar_date DATE  
3 ) RETURNS int  
4   DETERMINISTIC  
5 BEGIN  
6   DECLARE fiscal_year int;  
7   SET fiscal_year= YEAR(DATE_ADD(calendar_date,INTERVAL 4 MONTH));  
8   RETURN fiscal_year;  
9 END
```

4. Implementing the function created in the previous step

```
SELECT * FROM fact_sales_monthly  
WHERE  
    customer_code=90002002 AND  
    get_fiscal_year(date)=2021  
ORDER BY date asc  
LIMIT 100000;
```

Query Result:

	date	fiscal_year	product_code	customer_code	sold_quantity
▶	2020-09-01	2021	A0118150101	90002002	202
	2020-09-01	2021	A0118150102	90002002	162
	2020-09-01	2021	A0118150103	90002002	193
	2020-09-01	2021	A0118150104	90002002	146
	2020-09-01	2021	A0219150201	90002002	149
	2020-09-01	2021	A0219150202	90002002	107
	2020-09-01	2021	A0220150203	90002002	123
	2020-09-01	2021	A0320150301	90002002	146
	2020-09-01	2021	A0321150302	90002002	236

5. Performing joins to pull product information

```
SELECT s.date, s.product_code, p.product, p.variant, s.sold_quantity
FROM fact_sales_monthly s
JOIN dim_product p
ON s.product_code=p.product_code
WHERE
customer_code=90002002 AND
get_fiscal_year(date)=2021
LIMIT 1000000;
```

Query Result:

	date	product_code	product	variant	sold_quantity
▶	2020-09-01	A0118150101	AQ Dracula HDD – 3.5 Inch SATA 6 Gb/s 5400...	Standard	202
	2020-09-01	A0118150102	AQ Dracula HDD – 3.5 Inch SATA 6 Gb/s 5400...	Plus	162
	2020-09-01	A0118150103	AQ Dracula HDD – 3.5 Inch SATA 6 Gb/s 5400...	Premium	193
	2020-09-01	A0118150104	AQ Dracula HDD – 3.5 Inch SATA 6 Gb/s 5400...	Premium Plus	146
	2020-09-01	A0219150201	AQ WereWolf NAS Internal Hard Drive HDD – 8...	Standard	149
	2020-09-01	A0219150202	AQ WereWolf NAS Internal Hard Drive HDD – 8...	Plus	107
	2020-09-01	A0220150203	AQ WereWolf NAS Internal Hard Drive HDD – 8...	Premium	123
	2020-09-01	A0320150301	AQ Zion Saga	Standard	146
	2020-09-01	A0321150302	AQ Zion Saga	Plus	236
	2020-09-01	A0321150303	AQ Zion Saga	Premium	137
	2020-09-01	A0418150103	AQ Mforce Gen X	Standard 3	23
	2020-09-01	A0418150104	AQ Mforce Gen X	Plus 1	82
	2020-09-01	A0418150105	AQ Mforce Gen X	Plus 2	86
	2020-09-01	A0418150106	AQ Mforce Gen X	Plus 3	48
	2020-09-01	A0519150201	AQ Mforce Gen Y	Standard 1	138
	2020-09-01	A0519150202	AQ Mforce Gen Y	Standard 2	72
	2020-09-01	A0519150203	AQ Mforce Gen Y	Standard 3	38

6. Performing join with 'fact_gross_price' table with the above query and generating required fields

```
SELECT
    s.date,
    s.product_code,
    p.product,
    p.variant,
    s.sold_quantity,
    g.gross_price,
    ROUND(s.sold_quantity*g.gross_price,2) as gross_price_total
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
WHERE
    customer_code=90002002 AND
    get_fiscal_year(s.date)=2021
LIMIT 1000000;
```

Query Result:

	date	product_code	product	variant	sold_qua...	gross_price	gross_price_total
▶	2020-09-01	A0118150101	AQ Dracula HDD – 3.5 I...	Standard	202	19.0573	3849.57
▶	2020-09-01	A0118150102	AQ Dracula HDD – 3.5 I...	Plus	162	21.4565	3475.95
▶	2020-09-01	A0118150103	AQ Dracula HDD – 3.5 I...	Premium	193	21.7795	4203.44
▶	2020-09-01	A0118150104	AQ Dracula HDD – 3.5 I...	Premium Plus	146	22.9729	3354.04
▶	2020-09-01	A0219150201	AQ WereWolf NAS Inter...	Standard	149	23.6987	3531.11
▶	2020-09-01	A0219150202	AQ WereWolf NAS Inter...	Plus	107	24.7312	2646.24
▶	2020-09-01	A0220150203	AQ WereWolf NAS Inter...	Premium	123	23.6154	2904.69
▶	2020-09-01	A0320150301	AQ Zion Saga	Standard	146	23.7223	3463.46
▶	2020-09-01	A0321150302	AQ Zion Saga	Plus	236	27.1027	6396.24
▶	2020-09-01	A0321150303	AQ Zion Saga	Premium	137	28.0059	3836.81
▶	2020-09-01	A0418150103	AQ Mforce Gen X	Standard 3	23	19.5235	449.04
▶	2020-09-01	A0418150104	AQ Mforce Gen X	Plus 1	82	19.9239	1633.76
▶	2020-09-01	A0418150105	AQ Mforce Gen X	Plus 2	86	20.0766	1726.59
▶	2020-09-01	A0418150106	AQ Mforce Gen X	Plus 3	48	19.9365	956.95
▶	2020-09-01	A0519150201	AQ Mforce Gen Y	Standard 1	138	22.3984	3090.98