

## 1) Separating date into month and year.

```
SELECT
    EXTRACT(MONTH FROM Date) AS Month,
    EXTRACT(YEAR FROM Date) AS Year,*
FROM `metal-complex-394210.Bill_Analysis.bill`
ORDER BY Date
```

## 2) Which month had the highest total bill?

```
SELECT Date, Total_Bill
FROM `metal-complex-394210.Bill_Analysis.bill`
WHERE Total_Bill = (SELECT MAX(Total_Bill) FROM `metal-complex-394210.Bill_Analysis.bill`)
```

## 3) Which month had the highest electricity bill?

```
SELECT Date, Electricity_Bill
FROM `metal-complex-394210.Bill_Analysis.bill`
WHERE Electricity_Bill = (SELECT MAX(Electricity_Bill) FROM `metal-complex-394210.Bill_Analysis.bill`)
```

## 4) Which month had the highest water bill?

```
SELECT Date, Water_Bill
FROM `metal-complex-394210.Bill_Analysis.bill`
WHERE Water_Bill = (SELECT MAX(Water_Bill) FROM `metal-complex-394210.Bill_Analysis.bill`)
```

## 5) Which month had the highest sewer bill?

```
SELECT Date, Sewer_Bill
FROM `metal-complex-394210.Bill_Analysis.bill`
WHERE Sewer_Bill = (SELECT MAX(Sewer_Bill) FROM `metal-complex-394210.Bill_Analysis.bill`)
```

## 6) Which month had the lowest total bill?

```
SELECT Date, Total_Bill
FROM `metal-complex-394210.Bill_Analysis.bill`
WHERE Total_Bill = (SELECT MIN(Total_Bill) FROM `metal-complex-394210.Bill_Analysis.bill`)
```

## 7) Which month had the lowest electricity bill?

```
SELECT Date, Electricity_Bill
FROM `metal-complex-394210.Bill_Analysis.bill`
WHERE Electricity_Bill = (SELECT MIN(Electricity_Bill) FROM `metal-complex-394210.Bill_Analysis.bill`)
```

## 8) Average of total bill, electric, water and sewer.

```
SELECT AVG(Total_Bill) AS total_bill_avg, AVG(Electricity_Bill) AS electric_bill_avg,  
AVG(Water_Bill) AS water_bill_avg, AVG(Sewer_Bill) AS sewer_bill_avg  
FROM `metal-complex-394210.Bill_Analysis.bill`
```

## 9) For how many monthss was the total bill >200 and less than 100.

```
SELECT COUNT(*) AS number_of_months_with_geq_200  
FROM `metal-complex-394210.Bill_Analysis.bill`  
WHERE Total_Bill >= 200
```

```
SELECT COUNT(*) AS number_of_months_with_leq_100  
FROM `metal-complex-394210.Bill_Analysis.bill`  
WHERE Total_Bill <= 100
```

## 10) Average bill year over year.

```
SELECT  
    EXTRACT(YEAR FROM Date) AS Year, ROUND(AVG(Total_Bill),2) AS avg_total_bill  
FROM `metal-complex-394210.Bill_Analysis.bill`  
GROUP BY Year  
ORDER BY Year
```

## 11) Average bill month over month.

```
SELECT  
    EXTRACT(MONTH FROM Date) AS Month, ROUND(AVG(Total_Bill),2) AS avg_total_bill  
FROM `metal-complex-394210.Bill_Analysis.bill`  
GROUP BY Month  
ORDER BY Month
```