

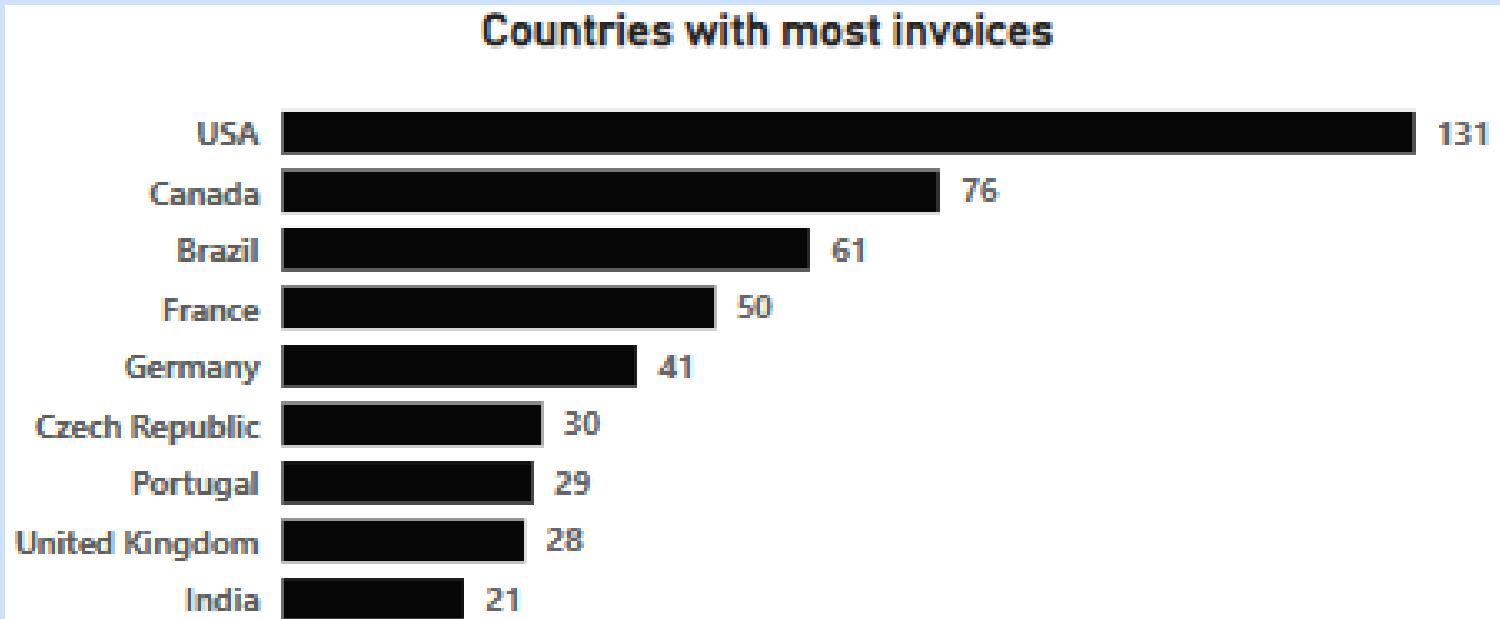
Music Store Analysis

Question-1

Which country have most invoices ?

```
select count( * ) as c,billing_country  
from invoice  
group by billing_country  
order by c desc;
```

c	billing_country
131	USA
76	Canada
61	Brazil
50	France
41	Germany
30	Czech Republic
29	Portugal
28	United Kingdom
21	India



Music Store Analysis

Question-2

What is Top 3 Total Values of invoice?

```
select total from invoice  
order by total desc  
limit 3;
```

	total
▶	23.759999999999998
	19.8
	19.8

Music Store Analysis

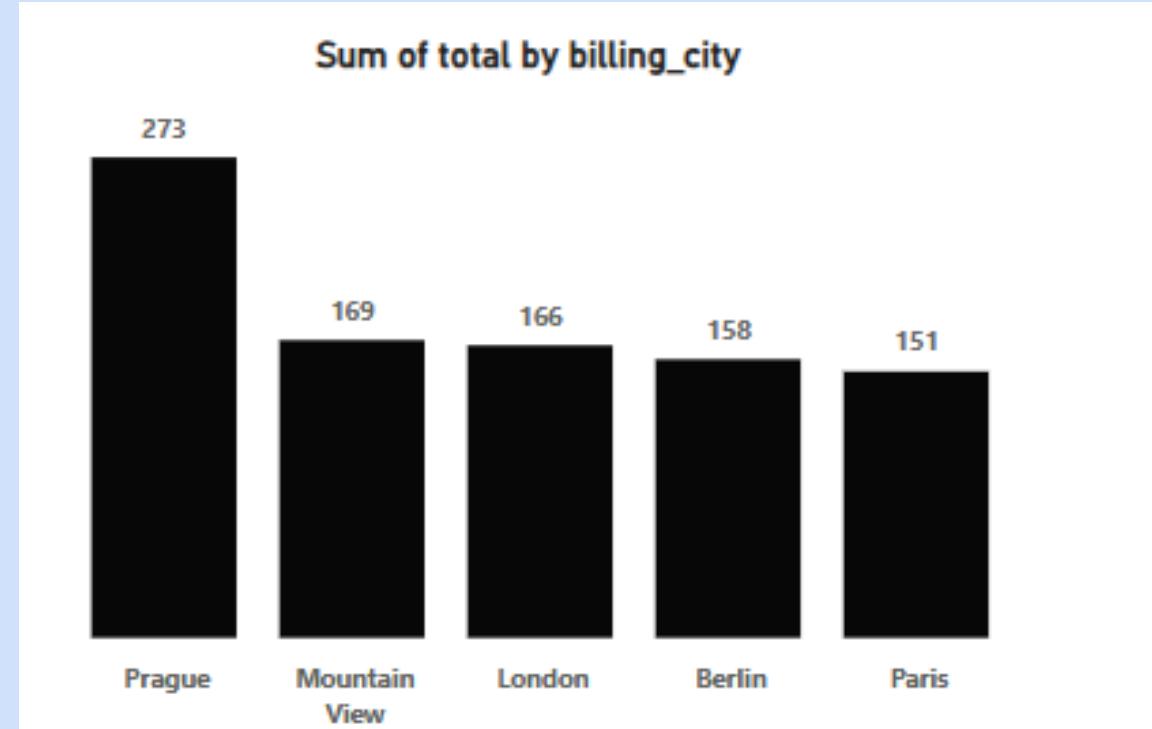
Question-3

Which city has the best customers? We would like to throw a promotional Music festival in the city we made the most money

```
select sum(total) as invoice_total,billing_country  
from invoice  
group by billing_country  
order by invoice_total desc;
```

	invoice_total	billing_country
▶	1040.489999999998	USA
	535.5900000000001	Canada
	427.6800000000006	Brazil
	389.069999999999	France
	334.62	Germany
	273.2400000000007	Czech Republic
	245.52	United Kingdom
	185.1300000000002	Portugal
	183.1499999999998	India
	114.8399999999997	Ireland
	98.01	Spain

Sum of total by billing_city



Music Store Analysis

Question-4

Who is the best customer? The customer who has spent the most money will be declared the best customer.

```
select customer.customer_id, customer.first_name, customer.last_name, sum(invoice.total) as total  
from customer  
join invoice on customer.customer_id = invoice.customer_id  
GROUP BY customer.customer_id, customer.first_name, customer.last_name  
order by total desc  
limit 1;
```

	customer_id	first_name	last_name	total
▶	5	František	Wichterlová	144.54000000000002

customer_id	first_name	last_name	Total Spend
5	František	Wichterlová	144.54
6	Helena	Holý	128.70
46	Hugh	O'Reilly	114.84
58	Manoj	Pareek	111.87
1	Luís	Gonçalves	108.90
13	Fernanda	Ramos	106.92
34	João	Fernandes	102.96
3	François	Tremblay	99.99
42	Wyatt	Girard	99.99
17	Jack	Smith	98.01
50	Enrique	Muñoz	98.01
53	Phil	Hughes	98.01
57	Lin	Sari	97.00

Music Store Analysis

Question-5

Identify and profile Rock genre listeners whose email IDs begin with the letter 'A' to understand a specific segment of the customer base and target them with genre-specific campaigns

```
select distinct email,first_name,last_name
from customer
join invoice on invoice.customer_id = customer.customer_id
join invoice_line on invoice_line.invoice_id = invoice.invoice_id
where track_id in(
select track_id from track
join genre on track.genre_id = genre.genre_id
where genre.name like 'ROCK'
)
order by email;
```

	email	first_name	last_name
▶	aaronmitchell@yahoo.ca	Aaron	Mitchell
	alero@uol.com.br	Alexandre	Rocha
	astrid.gruber@apple.at	Astrid	Gruber
	bjorn.hansen@yahoo.no	BjÃ¸rn	Hansen
	camille.bernard@yahoo.fr	Camille	Bernard

Music Store Analysis

Question-6

Recognize the top 10 artists contributing the most to the Rock genre catalog, allowing for strategic partnerships, event invitations, or genre-specific promotions.

```
select artist.artist_id, artist.name, count(artist.artist_id) as number_of_songs
from track
join album2 on album2.album_id = track.album_id
join artist on artist.artist_id = album2.artist_id
join genre on genre.genre_id = track.genre_id
where genre.name like 'ROCK'
group by artist.artist_id, artist.name
order by number_of_songs desc
limit 10;
```

artist_id	name	number_of_songs
1	AC/DC	18
3	Aerosmith	15
8	Audioslave	14
22	Led Zeppelin	14
4	Alanis Morissette	13
5	Alice In Chains	12
23	Frank Zappa & Captain Beefheart	9
2	Accept	4

Music Store Analysis

Question-7

Highlight tracks that exceed the average song duration, offering potential for long-play radio sets, curated playlists, or niche listener targeting.

```
select name,milliseconds
from track
where milliseconds >
(
  select avg(milliseconds) as avg_song_length
  from track
)
order by milliseconds desc;
```

	name	milliseconds
▶	How Many More Times	711836
	Advance Romance	677694
	Sleeping Village	644571
	You Shook Me(2)	619467
	Talkin' 'Bout Women Obviously	589531
	Stratus	582086
	No More Tears	555075

Music Store Analysis

Question-8

Which customers spent the most on music by specific artists. This analysis helps recognize customer loyalty trends and potential artist-customer engagement opportunities

```
with best_selling_artist as (
  select artist.artist_id as artist_id, artist.name as artist_name,
  sum(invoice_line.unit_price*invoice_line.quantity) as total_sales
  from invoice_line
  join track on track.track_id = invoice_line.track_id
  join album2 on album2.album_id = track.album_id
  join artist on artist.artist_id = album2.artist_id
  group by 1,2
  order by total_sales desc
  limit 1
)
select * from best_selling_artist;
```

	artist_id	artist_name	total_sales
▶	1	AC/DC	122.75999999999974

```
select c.customer_id,c.first_name,c.last_name,bsa.artist_name,
sum(il.unit_price*il.quantity) as amount_spent
from invoice i
join customer c on c.customer_id = i.customer_id
join invoice_line il on il.invoice_id = i.invoice_id
join track t on t.track_id = il.track_id
join album2 alb on alb.album_id = t.album_id
join best_selling_artist bsa on bsa.artist_id = alb.artist_id
group by c.customer_id, c.first_name, c.last_name, bsa.artist_name
order by 5 desc;
```

	customer_id	first_name	last_name	artist_name	amount_spent
	54	Steve	Murray	AC/DC	17.82
	53	Phil	Hughes	AC/DC	10.89
	21	Kathy	Chase	AC/DC	10.89
	49	StanisÅaw	WÃ³jcik	AC/DC	9.9
	1	LuÃ-s	GonÃ§alves	AC/DC	7.9200000000000001
	24	Frank	Ralston	AC/DC	7.9200000000000001
	31	Martha	Silk	AC/DC	3.96
	16	Frank	Harris	AC/DC	2.9699999999999998
	42	Wyatt	Girard	AC/DC	2.9699999999999998

Music Store Analysis

Question-9

Determine the most preferred music genre in each country based on purchase volume. This insight supports region-specific playlist curation and localized marketing

```
WITH popular_genre AS
(
    SELECT COUNT(invoice_line.quantity) as purchases, customer.country, genre.name, genre.genre_id,
    row_number() over(partition by customer.country order by count(invoice_line.quantity)desc) as row_no
    from invoice_line
    join invoice on invoice.invoice_id = invoice_line.invoice_id
    join customer on customer.customer_id = invoice.customer_id
    join track on track.track_id = invoice_line.track_id
    join genre on genre.genre_id = track.genre_id
    group by 2,3,4
    order by 2 asc, 1 desc
)
select * from popular_genre where row_no <=1;
```

	purchases	country	name	genre_id	row_no
▶	1	Argentina	Rock	1	1
	18	Australia	Rock	1	1
	6	Austria	Rock	1	1
	5	Belgium	Rock	1	1
	26	Brazil	Rock	1	1
	57	Canada	Rock	1	1
	7	Chile	Rock	1	1

Music Store Analysis

Question-10

Identify top-spending customers in each country to recognize VIP users or loyal customers for personalized outreach or reward programs

```
WITH customer_with_Country as
(
  select customer.customer_id, customer.first_name, customer.last_name, billing_country, sum(total)
  as total_spending,
  row_number() over(partition by billing_country order by sum(total) desc) as ROWNO
  from invoice
  join customer on customer.customer_id = invoice.customer_id
  group by 1,2,3,4
  order by 4 asc ,5 desc),
  country_max_spending as(
    select billing_country,max(total_spending) as max_spending
    from customer_with_country
    group by billing_country)
  select cc.customer_id,cc.first_name,cc.last_name,cc.billing_country,cc.total_spending
  from customer_with_country cc
  join country_max_spending ms
  on cc.billing_country=ms.billing_country
  where cc.total_spending=ms.max_spending
  order by 1;
```

customer_id	first_name	last_name	billing_country	total_spending
1	Luís	Gonçalves	Brazil	108.89999999999998
3	François	Tremblay	Canada	99.99
4	Bjørn	Hansen	Norway	72.27000000000001
5	František	Wichterlová	Czech Republic	144.54000000000002
7	Astrid	Gruber	Austria	69.3
8	Daan	Peeters	Belgium	60.38999999999999
9	Kara	Nielsen	Denmark	37.61999999999999
17	Jack	Smith	USA	98.01
34	João	Fernandes	Portugal	102.96000000000001
37	Fynn	Zimmermann	Germany	94.05000000000001
42	Wyatt	Girard	France	99.99
44	Terhi	Hämäläinen	Finland	79.2
45	Ladislav	Kovács	Hungary	78.21
46	Hugh	O'Reilly	Ireland	114.83999999999997
47	Lucas	Mancini	Italy	50.49
48	Johannes	Van der Berg	Netherlands	65.34
49	Stanisław	Wojciech	Poland	76.22999999999999