

Adventure workshop

1 OSNOVNI UPITI

1. Ispiši sve komercijaliste
 - **SELECT * FROM Komercijalist;**
2. Ispiši sve države
 - **SELECT * FROM Drzava;**
3. Ispiši sve gradove koji nemaju dodijeljenu državu
 - **SELECT * FROM Grad WHERE DrzavaID IS NULL;**
4. Ispiši sve kategorije proizvoda
 - **SELECT * FROM Kategorija;**
5. Ispiši prvih 5 proizvoda
 - **SELECT * FROM Proizvod LIMIT 5;**
6. Ispiši sve kupce iz odabranog grada (npr. GradID 2)
 - **SELECT * FROM Kupac WHERE GradID = 2;**
7. Ispiši sve račune
 - **SELECT * FROM Racun;**
8. Ispiši sve proizvode s minimalnom zalihom ispod 50
 - **SELECT * FROM Proizvod WHERE MinimalnaKolicinaNaSkladistu < 50;**
9. Ispiši sve zapise o kupcima
 - **SELECT * FROM Kupac;**
10. Ispiši sve kreditne kartice
 - **SELECT * FROM KreditnaKartica;**

2 SREDNJE SLOŽENI UPITI

1. Izbroji proizvode u svakoj kategoriji
 - **SELECT PotkategorijaID, COUNT(*) FROM Proizvod GROUP BY PotkategorijaID;**
2. Ispiši proizvode s minimalnim zalihama iznad određenog praga (npr. 100)
 - **SELECT * FROM Proizvod WHERE MinimalnaKolicinaNaSkladistu > 100;**
3. Ispiši sve narudžbe koje je izvršio određeni kupac (npr. ID kupca 1)
 - **SELECT * FROM Racun WHERE KupacID = 1;**
4. Ispiši ukupnu prodaju za svakog prodavača
 - **SELECT KomercijalistID, COUNT(*) as UkupnoProdaja FROM Racun GROUP BY KomercijalistID;**
5. Ispiši sve gradove u određenoj zemlji (npr. ID zemlje 1)
 - **SELECT * FROM Grad WHERE DrzavaID = 1;**

6. Ispiši gradove s pripadajućim nazivima država
 - **SELECT Grad.Naziv AS Grad, Drzava.Naziv AS Drzava FROM Grad JOIN Drzava ON Grad.DrzavaID = Drzava.IDDrzava;**
7. Ispiši proizvode bez dodijeljene potkategorije
 - **SELECT * FROM Proizvod WHERE PotkategorijaID IS NULL;**
8. Ispiši kupce bez povezanih računa
 - **SELECT * FROM Kupac WHERE IDKupac NOT IN (SELECT DISTINCT KupacID FROM Racun);**
9. Ispiši račune s njihovim ukupnim brojem stavki
 - **SELECT Racun.IDRacun, COUNT(Stavka.IDStavka) AS BrojStavki FROM Racun LEFT JOIN Stavka ON Racun.IDRacun = Stavka.RacunID GROUP BY Racun.IDRacun;**
10. Ispiši prodavače kod kojih je račun plaćen kreditnom karticom
 - **SELECT DISTINCT Komercijalist.* FROM Komercijalist JOIN Racun ON Komercijalist.IDKomercijalist = Racun.KomercijalistID WHERE Racun.KreditnaKarticaID IS NOT NULL;**

3 NAPREDNI UPITI S POVEZIVANJEM TABLICA

11. Join Proizvod and Potkategorija to list products with their categories

- **Query:** **SELECT Proizvod.Naziv, Potkategorija.Naziv FROM Proizvod JOIN Potkategorija ON Proizvod.PotkategorijaID = Potkategorija.IDPotkategorija;**
- **Solution:** Shows product names along with their corresponding category names.

12. Find customers and their residing city names

- **Query:** **SELECT Kupac.Ime, Kupac.Prezime, Grad.Naziv FROM Kupac JOIN Grad ON Kupac.GradID = Grad.IDGrad;**
- **Solution:** Lists customer names along with the names of the cities they reside in.

13. Display orders along with customer and product details

- **Query:** **SELECT Racun.BrojRacuna, Kupac.Ime, Proizvod.Naziv FROM Racun JOIN Kupac ON Racun.KupacID = Kupac.IDKupac JOIN Stavka ON Racun.IDRacun = Stavka.RacunID JOIN Proizvod ON Stavka.ProizvodID = Proizvod.IDProizvod;**
- **Solution:** Shows order numbers, customer names, and product names for each order.

14. List products with their subcategory and main category names

- **Query:** **SELECT Proizvod.Naziv, Potkategorija.Naziv AS Potkategorija, Kategorija.Naziv AS Kategorija FROM Proizvod JOIN Potkategorija ON Proizvod.PotkategorijaID = Potkategorija.IDPotkategorija JOIN Kategorija ON Potkategorija.KategorijaID = Kategorija.IDKategorija;**

- **Solution:** Retrieves product names along with their subcategory and main category names.

11. Show sales records, including salesperson and customer names

- **Query:** `SELECT Racun.BrojRacuna, Komercijalist.Ime AS KomercijalistIme, Kupac.Ime AS KupacIme FROM Racun JOIN Komercijalist ON Racun.KomercijalistID = Komercijalist.IDKomercijalist JOIN Kupac ON Racun.KupacID = Kupac.IDKupac;`
 - **Solution:** Displays the order numbers along with the names of the salesperson and the customer for each sale.

4 SLOŽENI UPITI KOJI UKLJUČUJU AGREGATNE FUNKCIJE, PODUPITE I UVJETE

16. Calculate the average price of products in each category

- **Query:** `SELECT KategorijaID, AVG(CijenaBezPDV) FROM Proizvod GROUP BY KategorijaID;`
- **Solution:** Determines the average price of products within each category.

17. List cities with more than 5 customers

- **Query:** `SELECT GradID, COUNT(*) AS BrojKupaca FROM Kupac GROUP BY GradID HAVING BrojKupaca > 5;`
- **Solution:** Identifies cities with more than 5 customers.

18. Find the most popular product based on order quantity

- **Query:** `SELECT ProizvodID, SUM(Kolicina) AS UkupnaKolicina FROM Stavka GROUP BY ProizvodID ORDER BY UkupnaKolicina DESC LIMIT 1;`
- **Solution:** Retrieves the product with the highest total order quantity.

19. Display products not ordered in any invoice

- **Query:** `SELECT * FROM Proizvod WHERE IDProizvod NOT IN (SELECT ProizvodID FROM Stavka);`
- **Solution:** Lists products that have not been ordered in any invoice.

20. Show the total sales amount for each city

- **Query:** `SELECT Grad.Naziv, SUM(Stavka.UkupnaCijena) AS UkupnaProdaja FROM Stavka JOIN Racun ON Stavka.RacunID = Racun.IDRacun JOIN Kupac ON Racun.KupacID = Kupac.IDKupac JOIN Grad ON Kupac.GradID = Grad.IDGrad GROUP BY Grad.Naziv;`
- **Solution:** Calculates the total sales amount for each city.

5 UPITI S PODUPITIMA I NAPREDNIM UVJETIMA

21. List countries with no cities in the database

- **Query:** `SELECT * FROM Drzava WHERE IDDrzava NOT IN (SELECT DISTINCT DrzavaID FROM Grad);`
- **Solution:** Identifies countries without any cities listed in the database.

22. Find the city with the highest number of orders

- **Query:** `SELECT Grad.Naziv, COUNT(Racun.IDRacun) AS BrojRacuna FROM Racun JOIN Kupac ON Racun.KupacID = Kupac.IDKupac JOIN Grad ON Kupac.GradID = Grad.IDGrad GROUP BY Grad.Naziv ORDER BY BrojRacuna DESC LIMIT 1;`
- **Solution:** Determines the city with the highest number of orders.

23. Show products with prices above the average price in their category

- **Query:** `SELECT * FROM Proizvod WHERE CijenaBezPDV > (SELECT AVG(CijenaBezPDV) FROM Proizvod AS P WHERE P.KategorijaID = Proizvod.KategorijaID);`
- **Solution:** Lists products priced above the average in their respective categories.

24. Identify customers who have made purchases on more than one distinct date

- **Query:** `SELECT KupacID FROM Racun GROUP BY KupacID HAVING COUNT(DISTINCT DATE(DatumIzdavanja)) > 1;`
- **Solution:** Finds customers who have made purchases on more than one distinct date.

25. Calculate the total number of products sold for each product category

- **Query:** `SELECT Kategorija.Naziv, SUM(Stavka.Kolicina) AS UkupnoProdano FROM Stavka JOIN Proizvod ON Stavka.ProizvodID = Proizvod.IDProizvod JOIN Potkategorija ON Proizvod.PotkategorijaID = Potkategorija.IDPotkategorija JOIN Kategorija ON Potkategorija.KategorijaID = Kategorija.IDKategorija GROUP BY Kategorija.Naziv;`
- **Solution:** Summarizes the total number of products sold in each product category.

6 NAPREDNA MANIPULACIJA PODACIMA I ANALIZA

26. Find the month with the highest sales volume

- **Query:** `SELECT MONTH(DatumIzdavanja) AS Mjes ec, SUM(Stavka.Kolicina) AS UkupnaKolicina FROM Stavka JOIN Racun ON Stavka.RacunID = Racun.IDRacun GROUP BY MONTH(DatumIzdavanja) ORDER BY UkupnaKolicina DESC LIMIT 1;`
- **Solution:** Determines the month with the highest total quantity of products sold.

27. Show the difference in product quantities between the two best-selling products

- **Query:** `SELECT ABS(SUM(Kolicina) - (SELECT SUM(Kolicina) FROM Stavka GROUP BY ProizvodID ORDER BY SUM(Kolicina) DESC LIMIT 1, 1)) AS Razlika FROM Stavka GROUP BY ProizvodID ORDER BY SUM(Kolicina) DESC LIMIT 1;`
- **Solution:** Calculates the difference in sold quantities between the top-selling product and the second best-selling product.

28. List all products that have never been sold in the same invoice with Product ID 1

- **Query:** `SELECT Proizvod.Naziv FROM Proizvod WHERE IDProizvod NOT IN (SELECT ProizvodID FROM Stavka WHERE RacunID IN (SELECT RacunID FROM Stavka WHERE ProizvodID = 1));`
- **Solution:** Identifies products that have never been included in an invoice with Product ID 1.

29. Calculate the average sales amount per invoice for each salesperson

- **Query:** `SELECT KomercijalistID, AVG(Total) AS ProsječniIznosPoRacunu FROM (SELECT Racun.KomercijalistID, Racun.IDRacun, SUM(Stavka.UkupnaCijena) AS Total FROM Racun JOIN Stavka ON Racun.IDRacun = Stavka.RacunID GROUP BY Racun.IDRacun) AS Sales GROUP BY KomercijalistID;`
- **Solution:** Determines the average total amount per invoice for each salesperson, calculated from the sum of item totals in each invoice.

30. Find the country with the most diverse range of product categories in orders

- **Query:** `SELECT Drzava.Naziv, COUNT(DISTINCT KategorijaID) AS Raznolikost FROM Racun JOIN Kupac ON Racun.KupacID = Kupac.IDKupac JOIN Grad ON Kupac.GradID = Grad.IDGrad JOIN Drzava ON Grad.DrzavaID = Drzava.IDDrzava JOIN Stavka ON Racun.IDRacun = Stavka.RacunID JOIN Proizvod ON Stavka.ProizvodID = Proizvod.IDProizvod JOIN Potkategorija ON Proizvod.PotkategorijaID = Potkategorija.IDPotkategorija GROUP BY Drzava.Naziv ORDER BY Raznolikost DESC LIMIT 1;`
- **Solution:** Identifies the country with the highest diversity of product categories based on orders.