

Gestiunea unei platforme de învățare online

Operații pe baza de date - Interogări, Views, Inner Joins

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10 Interogări

```
PlatformaDeInvatare=# select * from utilizator where utilizator.nume like 'A%';
```

id_utilizator	id_rol	nume	prenume	data_nasterii	adresa_email	parola_cont	data_alaturarii	nr_tel
1	101	Angelica	Teodora	1995-12-20	teodora.angelica@yahoo.com	cd8f7b98	2011-04-08	0714700733
8	102	Alecu	Diaconescu	1988-07-15	diaconescu.alecu@gmail.com	414bc1b6	2009-04-22	0724345390

(2 rows)

```
PlatformaDeInvatare=# select id_utilizator, nume, prenume from utilizator where utilizator.nr_tel like '07%';
```

id_utilizator	nume	prenume
1	Angelica	Teodora
2	Malaeru	Smaranda
3	Ionescu	David
5	Malaia	Emilia
8	Alecu	Diaconescu
11	Tudor	Eugen
12	Oana	Lucian
14	Chirita	Valentina
15	Birau	Corina

(9 rows)

```
PlatformaDeInvatare=# select id_curs from curs where pret between 150 and 200;
```

id_curs
1
3
4

(3 rows)

```
PlatformaDeInvatare=# select id_curs, link from curs where id_domeniu=5;
```

id_curs	link
4	Link4
5	Link5

(2 rows)

```
PlatformaDeInvatare=# select id_mesaj, continut from mesaj where extract(month from data_postarii)=03;
```

id_mesaj	continut
5	Continut5
1	Continut1

(2 rows)

```
PlatformaDeInvatare=# select id_utilizator, nume, prenume, adresa_email from utilizator where adresa_email like '%gmail.com';
```

id_utilizator	nume	prenume	adresa_email
2	Malaeru	Smaranda	smaranda.malaeru@gmail.com
3	Ionescu	David	david.ionescu@gmail.com
4	Sasaran	Craciun	craciun.sasaran@gmail.com
7	Voinea	George	george.voinea@gmail.com
8	Alecu	Diaconescu	diaconescu.alecu@gmail.com
9	Bratosin	Ania	ania.bratosin@gmail.com
10	Malaia	Otilia	otilia.malaia@gmail.com
12	Oana	Lucian	lucian.oana@gmail.com
13	Pop	Victor	victor.pop@gmail.com
14	Chirita	Valentina	valentina.chirita@gmail.com

(10 rows)

```
PlatformaDeInvatare=# select id_curs, id_creator, pret from curs where id_domeniu between 2 and 5 and pret > 175;
```

id_curs	id_creator	pret
3	5	200
5	2	255

(2 rows)

```
PlatformaDeInvatare=# select id_creator from creator where id_utilizator between 2 and 4 and procent between 10 and 15;
id_creator
-----
      2
      3
      4
(3 rows)
```

Cerințe colegi:

1. Să se afișeze cel mai scump curs disponibil.

```
PlatformaDeInvatare=# select id_curs, data_creariei, pret from curs order by pret desc limit 1;
id_curs | data_creariei | pret
-----+-----+-----
      5 | 2016-08-24    | 255
(1 row)
```

2. Să se afișeze numărul de utilizatori noi din anul curent.

```
PlatformaDeInvatare=# select count(utilizator.id_utilizator) from utilizator where utilizator.id_rol = 1
03 and extract(year from data_alaturarii)=extract(year from current_date);
count
-----
      4
(1 row)
```

5 inner join (3 inner join + 2 inner join în inner join)

```
PlatformaDeInvatare=# select curs.id_curs, nota, specificatii from curs inner join recenzie_curs on curs
.id_curs=recenzie_curs.id_curs;
id_curs | nota | specificatii
-----+-----+-----
      2 |    9 | Specificatii5
      4 |    5 | Specificatii4
      3 |    7 | Specificatii3
      5 |   10 | Specificatii2
      1 |    8 | Specificatii1
(5 rows)
```

```
PlatformaDeInvatare=# select utilizator.id_utilizator, adresa_email, procent from utilizator inner join
creator on utilizator.id_utilizator=creator.id_utilizator;
id_utilizator | adresa_email | procent
-----+-----+-----
          1 | teodora.angelica@yahoo.com | 20
          2 | smaranda.malaeru@gmail.com | 15
          3 | david.ionescu@gmail.com | 10
          4 | craciun.sasaran@gmail.com | 15
          5 | emilia.malaia@yahoo.com | 15
(5 rows)
```

```
PlatformaDeInvatare=# select utilizator.id_utilizator, adresa_email, salariu from utilizator inner join
mentor on utilizator.id_utilizator=mentor.id_utilizator and salariu <= 2500 order by(salariu) asc;
id_utilizator | adresa_email | salariu
-----+-----+-----
          9 | ania.bratosin@gmail.com | 1500
          7 | george.voinea@gmail.com | 2000
          6 | paul.stan@yahoo.com | 2500
(3 rows)
```

```
PlatformaDeInvatare=# select utilizator.id_utilizator, denumire, id_proiect, continut, status from utili
zator inner join rol on utilizator.id_rol = rol.id_rol inner join proiect_final on utilizator.id_utiliza
tor = proiect_final.id_autor;
id_utilizator | denumire | id_proiect | continut | status
-----+-----+-----+-----+-----
          14 | Cursant |          5 | ContinutProiect5 | in curs
          12 | Cursant |          4 | ContinutProiect4 | in curs
          13 | Cursant |          3 | ContinutProiect3 | in curs
          11 | Cursant |          2 | ContinutProiect2 | neabsolvit
          15 | Cursant |          1 | ContinutProiect1 | absolvit
(5 rows)
```

```
PlatformaDeInvatare=# select utilizator.id_utilizator, nume, prenume, id_mesaj, data_postarii, subiect f
rom utilizator inner join mesaj on utilizator.id_utilizator = mesaj.id_autor inner join conversatie on m
esaj.id_conversatie = conversatie.id_conversatie where extract(day from mesaj.data_postarii) between 15
and 30 order by(mesaj.id_autor) asc;
```

id_utilizator	nume	prenume	id_mesaj	data_postarii	subiect
7	Voinea	George	1	2020-03-28	Tema_BD
11	Tudor	Eugen	2	2022-12-19	ProiectFinal_IA
13	Pop	Victor	5	2017-03-17	Exercitiu_DesignInterior

(3 rows)

5 views

```
PlatformaDeInvatare=# create view utilizator_adresa_email as select id_utilizator, adresa_email from utilizator;
CREATE VIEW
PlatformaDeInvatare=# select * from utilizator_adresa_email;
```

id_utilizator	adresa_email
1	teodora.angelica@yahoo.com
2	smaranda.malaeru@gmail.com
3	david.ionescu@gmail.com
4	craciun.sasaran@gmail.com
5	emilia.malaia@yahoo.com
6	paul.stan@yahoo.com
7	george.voinea@gmail.com
8	diaconescu.alecu@gmail.com
9	ania.bratosin@gmail.com
10	otilia.malaia@gmail.com
11	eugen.tudor@yahoo.com
12	lucian.oana@gmail.com
13	victor.pop@gmail.com
14	valentina.chirita@gmail.com
15	corina.birau@yahoo.com

(15 rows)

```
PlatformaDeInvatare=# create view utilizator_parola_cont as select id_utilizator, parola_cont from utilizator;
CREATE VIEW
PlatformaDeInvatare=# select * from utilizator_parola_cont;
```

id_utilizator	parola_cont
1	cd8f7b98
2	5af7a579
3	fbcd413e
4	16cad5e8
5	f40b544c
6	daf187a5
7	f2a8dda5
8	414bc1b6
9	ec57a0e7
10	68f4a7d4
11	7b945899
12	6888e534
13	32dea27b
14	3036fc42
15	37d6612d

(15 rows)

```
PlatformaDeInvatare=# create view utilizator_data_alaturarii as select id_utilizator, data_alaturarii from utilizator;
CREATE VIEW
PlatformaDeInvatare=# select * from utilizator_data_alaturarii;
```

id_utilizator	data_alaturarii
1	2011-04-08
2	2009-09-15
3	2017-08-28
4	2013-09-22
5	2012-05-14
6	2015-10-16
7	2011-04-29
8	2009-04-22
9	2019-02-11
10	2022-07-11
11	2022-02-27
12	2020-03-20
13	2021-03-18
14	2021-08-09
15	2021-11-20

(15 rows)

```
PlatformaDeInvatare=# create view mentor_salariu as select id_mentor, salariu from mentor where salariu >= 2500;
CREATE VIEW
PlatformaDeInvatare=# select * from mentor_salariu;
 id_mentor | salariu
-----+-----
          5 |    3500
          3 |    2750
          1 |    2500
(3 rows)
```

```
PlatformaDeInvatare=# create view creator_procent as select id_creator, procent from creator where procent <= 15 and id_creator between 1 and 3;
CREATE VIEW
PlatformaDeInvatare=# select * from creator_procent;
 id_creator | procent
-----+-----
          3 |     10
          2 |     15
(2 rows)
```


10 interogări

```
PlatformaDeInvatare=# select id_utilizator, nume, prenume from utilizator where prenume like 'V%';
id_utilizator | nume | prenume
-----+-----+-----
          13 | Pop  | Victor
          14 | Chirita | Valentina
(2 rows)
```

```
PlatformaDeInvatare=# select id_utilizator, adresa_email from utilizator where adresa_email like '%yahoo.com';
id_utilizator | adresa_email
-----+-----
          1 | teodora.angelica@yahoo.com
          5 | emilia.malaia@yahoo.com
          6 | paul.stan@yahoo.com
         11 | eugen.tudor@yahoo.com
         15 | corina.birau@yahoo.com
(5 rows)
```

```
PlatformaDeInvatare=# select id_curs from curs where pret <= 175 and id_domeniu >= 3;
id_curs
-----
          2
          4
(2 rows)
```

```
PlatformaDeInvatare=# select * from conversatie where id_conversatie <= 4 and subiect like 'Proiect%' or subiect like '%IA';
id_conversatie | subiect
-----+-----
              2 | ProiectFinal_IA
              4 | Portofoliu_IA
(2 rows)
```

```
PlatformaDeInvatare=# select id_proiect, id_autor from proiect_final where status like 'in curs';
id_proiect | id_autor
-----+-----
          5 |       14
          4 |       12
          3 |       13
(3 rows)
```

```
PlatformaDeInvatare=# select continut from proiect_final where id_proiect >= 2 and id_curs <= 4;
continut
-----
ContinutProiect5
ContinutProiect4
ContinutProiect3
ContinutProiect2
(4 rows)
```

```
PlatformaDeInvatare=# select * from recenzie_curs where nota between 8 and 10 and id_autor between 13 and 15;
id_recenzie | id_curs | id_autor | nota | specificatii
-----+-----+-----+-----+-----
          5 |       2 |       15 |    9 | Specificatii5
          2 |       5 |       14 |   10 | Specificatii2
(2 rows)
```

```
PlatformaDeInvatare=# select * from utilizator order by(nume) asc;
id_utilizator | id_rol | nume | prenume | data_nasterii | adresa_email | parola_cont | data_alaturarii | nr_tel
-----+-----+-----+-----+-----+-----+-----+-----+-----
          8 |    102 | Alecu | Diaconescu | 1988-07-15 | diaconescu.alecu@gmail.com | 414bc1b6 | 2009-04-22 | 0724345390
          1 |    101 | Angelica | Teodora | 1995-12-20 | teodora.angelica@yahoo.com | cd8f7b98 | 2011-04-08 | 0714700733
         15 |    103 | Birau | Corina | 2009-01-12 | corina.birau@yahoo.com | 37d6612d | 2021-11-20 | 0735724047
          9 |    102 | Bratosin | Ania | 1986-05-06 | ania.bratosin@gmail.com | ec57a0e7 | 2019-02-11 | 0332008025
         14 |    103 | Chirita | Valentina | 1999-11-08 | valentina.chirita@gmail.com | 3036fc42 | 2021-08-09 | 0719348892
          3 |    101 | Ionescu | David | 1993-01-21 | david.ionescu@gmail.com | fbcd413e | 2017-08-28 | 0740760250
          2 |    101 | Malaeru | Smaranda | 1993-12-11 | smaranda.malaeru@gmail.com | 5af7a579 | 2009-09-15 | 0757017104
          5 |    101 | Malaia | Emilia | 1984-08-13 | emilia.malaia@yahoo.com | f40b544c | 2012-05-14 | 0738628316
         10 |    102 | Malaia | Otilia | 2001-11-12 | otilia.malaia@gmail.com | 68f4a7d4 | 2022-07-11 | 0266640568
         12 |    103 | Oana | Lucian | 2006-05-16 | lucian.oana@gmail.com | 6888e534 | 2020-03-20 | 0737837686
         13 |    103 | Pop | Victor | 2005-01-08 | victor.pop@gmail.com | 32dea27b | 2021-03-18 | 0330951475
          4 |    101 | Sasaran | Craciun | 1990-04-27 | craciun.sasaran@gmail.com | 16cad5e8 | 2013-09-22 | 0344384898
          6 |    102 | Stan | Paul | 2002-02-06 | paul.stan@yahoo.com | daf187a5 | 2015-10-16 | 0338152351
         11 |    103 | Tudor | Eugen | 2003-12-21 | eugen.tudor@yahoo.com | 7b945899 | 2022-02-27 | 0762983592
          7 |    102 | Voinea | George | 1992-11-14 | george.voinea@gmail.com | f2a8dda5 | 2011-04-29 | 0356435913
(15 rows)
```

Cerințe colegi:

1. Să se afișeze raportul de popularitate al cursurilor.

```
PlatformaDeInvatare=# select cursant_curs.id_curs, domeniu.denumire from cursant_curs inner join curs on
cursant_curs.id_curs = curs.id_curs inner join domeniu on domeniu.id_domeniu = curs.id_domeniu group by
cursant_curs.id_curs, domeniu.denumire order by (count(cursant_curs.id_curs)) desc limit 1;
id_curs | denumire
-----+-----
3 | Baze de Date
(1 row)
```

2. Să se afișeze numărul de elevi din ultima lună.

```
PlatformaDeInvatare=# select count(utilizator.id_utilizator) from utilizator where utilizator.id_rol = 1
03 and extract(month from data_alaturarii)=extract(month from current_date);
count
-----
4
(1 row)
```

5 inner join (3 inner join + 2 inner join în inner join)

```
PlatformaDeInvatare=# select nume, prenume, nr_tel from utilizator inner join creator on utilizator.id_u
tilizator = creator.id_utilizator;
nume | prenume | nr_tel
-----+-----
Angelica | Teodora | 0714700733
Malaeru | Smaranda | 0757017104
Ionescu | David | 0740760250
Sasaran | Craciun | 0344384898
Malaia | Emilia | 0738628316
(5 rows)
```

```
PlatformaDeInvatare=# select id_utilizator, nume, prenume, status from utilizator inner join proiect_fin
al on utilizator.id_utilizator=proiect_final.id_autor where status like 'in curs';
id_utilizator | nume | prenume | status
-----+-----
14 | Chirita | Valentina | in curs
12 | Oana | Lucian | in curs
13 | Pop | Victor | in curs
(3 rows)
```

```
PlatformaDeInvatare=# select utilizator.id_utilizator, adresa_email, data_postarii, continut from utiliz
ator inner join mesaj on utilizator.id_utilizator=mesaj.id_autor where id_autor <= 11 and extract(year f
rom data_postarii) between 2019 and 2022 order by(data_postarii) desc;
id_utilizator | adresa_email | data_postarii | continut
-----+-----
11 | eugen.tudor@yahoo.com | 2022-12-19 | Continut2
7 | george.voinea@gmail.com | 2020-03-28 | Continut1
9 | ania.bratosin@gmail.com | 2019-01-31 | Continut3
(3 rows)
```

```
PlatformaDeInvatare=# select utilizator.id_utilizator, utilizator.id_rol, adresa_email, data_postarii, c
ontinut from utilizator inner join rol on utilizator.id_rol = rol.id_rol inner join mesaj on utilizator.
id_utilizator = mesaj.id_autor;
id_utilizator | id_rol | adresa_email | data_postarii | continut
-----+-----
13 | 103 | victor.pop@gmail.com | 2017-03-17 | Continut5
15 | 103 | corina.birau@yahoo.com | 2023-12-01 | Continut4
9 | 102 | ania.bratosin@gmail.com | 2019-01-31 | Continut3
11 | 103 | eugen.tudor@yahoo.com | 2022-12-19 | Continut2
7 | 102 | george.voinea@gmail.com | 2020-03-28 | Continut1
(5 rows)
```

```
PlatformaDeInvatare=# select utilizator.id_utilizator, utilizator.id_rol, nume, prenume, proiect_final.s
tatus from utilizator inner join rol on utilizator.id_rol = rol.id_rol inner join proiect_final on utili
zator.id_utilizator = proiect_final.id_autor where status like 'in curs' order by(utilizator.nume) asc;
id_utilizator | id_rol | nume | prenume | status
-----+-----
14 | 103 | Chirita | Valentina | in curs
12 | 103 | Oana | Lucian | in curs
13 | 103 | Pop | Victor | in curs
(3 rows)
```

5 views

```
PlatformaDeInvatare=# create view utilizator_nr_tel as select id_utilizator, nr_tel from utilizator;
CREATE VIEW
PlatformaDeInvatare=# select * from utilizator_nr_tel;
 id_utilizator | nr_tel
-----+-----
          1 | 0714700733
          2 | 0757017104
          3 | 0740760250
          4 | 0344384898
          5 | 0738628316
          6 | 0338152351
          7 | 0356435913
          8 | 0724345390
          9 | 0332008025
         10 | 0266640568
         11 | 0762983592
         12 | 0737837686
         13 | 0330951475
         14 | 0719340892
         15 | 0735724047
(15 rows)
```

```
PlatformaDeInvatare=# create view proiect_status as select id_proiect, status from proiect_final;
CREATE VIEW
PlatformaDeInvatare=# select * from proiect_status;
 id_proiect | status
-----+-----
          5 | in curs
          4 | in curs
          3 | in curs
          2 | neabsolvit
          1 | absolut
(5 rows)
```

```
PlatformaDeInvatare=# create view proiect_continut as select id_proiect, continut from proiect_final;
CREATE VIEW
PlatformaDeInvatare=# select * from proiect_continut;
 id_proiect | continut
-----+-----
          5 | ContinutProiect5
          4 | ContinutProiect4
          3 | ContinutProiect3
          2 | ContinutProiect2
          1 | ContinutProiect1
(5 rows)
```

```
PlatformaDeInvatare=# create view curs_nota as select id_curs, nota from recenzie_curs where nota between 5 and 7;
CREATE VIEW
PlatformaDeInvatare=# select * from curs_nota;
 id_curs | nota
-----+-----
          4 | 5
          3 | 7
(2 rows)
```

```
PlatformaDeInvatare=# create view recenzie_specificatii as select id_recenzie, specificatii from recenzie_curs order by(nota) desc;
CREATE VIEW
PlatformaDeInvatare=# select * from recenzie_specificatii;
 id_recenzie | specificatii
-----+-----
          2 | Specificatii2
          5 | Specificatii5
          1 | Specificatii1
          3 | Specificatii3
          4 | Specificatii4
(5 rows)
```