**Cerinta 1**

Bine ati venit la baza de date a sezonului 2021-2022 din NBA (National Basketball Association)! Aceasta contine date detaliate despre toate cele 30 de echipe, antrenorii acestora, sponsorii, arenele pe care isi desfasoara meciurile de acasa si informatii despre cei mai buni 2 jucatori de la fiecare echipa din acest sezon. Meciurile de playoff(unde ajung primele 8 echipe din fiecare conferinta) se disputa pe sistemul cel mai bun din 7 meciuri, castiga prima echipa care ajunge la 4 victorii in acea serie. Echipa castigatoare se va identifica cu id-ul id\_echipa\_1, arena pe care joaca cu id\_arena\_1, respectiv numarul de victorii prin victorii\_echipa\_1. De asemenea, meciurile din serie se vor televiza toate pe unul din cele 6 canale TV aflate in contract cu liga.

**Diagram

Description automatically generatedCerinta 2**

**Diagram

Description automatically generatedCerinta 3**

**Cerinta 4**

create table Echipe(

id\_echipa varchar2(10) not null Primary Key,

oras varchar2(50),

nume\_echipa varchar2(50),

conferinta varchar2(50),

record\_meciuri varchar2(50),

puncte int);

Graphical user interface, table

Description automatically generated with medium confidence

create table Antrenori(

id\_antrenor int not null primary key,

prenume varchar2(50),

nume varchar2(50),

id\_echipa varchar2(50),

foreign key (id\_echipa) references echipe(id\_echipa)

);

Table

Description automatically generated

create table sponsori(

id\_sponsor int not null PRIMARY KEY,

nume\_sponsor varchar2(50)

);

Graphical user interface, table

Description automatically generated

create table sponsorizare(

id\_echipa varchar2(10) not null,

id\_sponsor int not null,

constraint pk\_sponosrizeaza primary key (id\_echipa, id\_sponsor)

);

Table

Description automatically generated

create table jucatori(

id\_jucator varchar2(10) not null primary key,

prenume varchar2(50),

nume varchar2(50),

numar int,

puncte decimal(10,2),

recuperari decimal(10, 2),

assisturi decimal(10,2),

id\_echipa varchar2(10),

foreign key(id\_echipa) references echipe(id\_echipa)

);

Graphical user interface

Description automatically generated with medium confidence

create table arene(

id\_arena int not null Primary Key,

nume\_arena varchar2(50),

capacitate int,

an\_inaugurare int,

id\_echipa varchar2(10),

foreign key(id\_echipa) references echipe(id\_echipa)

);

Graphical user interface, application, table

Description automatically generated

create table Playoffs(

id\_meci int not null Primary Key,

runda varchar2(50),

id\_echipa\_1 varchar2(10),

id\_echipa\_2 varchar2(10),

id\_arena\_1 int,

id\_arena\_2 int,

victorii\_echipa\_1 int,

victorii\_echipa\_2 int,

foreign key(id\_echipa\_1) references echipe(id\_echipa),

foreign key(id\_echipa\_2) references echipe(id\_echipa),

foreign key(id\_arena\_1) references arene(id\_arena),

foreign key(id\_arena\_2) references arene(id\_arena)

);

Table

Description automatically generated with low confidence

create table Televiziuni(

id\_tv int not null Primary Key,

nume\_tv varchar2(50),

sfarsit\_contract int);

Graphical user interface, table

Description automatically generated

create table televizare(

id\_meci int not null,

id\_tv int not null,

constraint pk\_televizare primary key(id\_meci, id\_tv));

A picture containing chart

Description automatically generated

**Cerinta 5**

insert into echipe

values('MIA', 'Miami', 'Heat', 'Est', '53-29', 646);

insert into echipe

values('BOS', 'Boston', 'Celtics', 'Est', '51-31', 622);

insert into echipe

values('MIL', 'Milwaukee', 'Bucks', 'Est', '51-31', 622);

insert into echipe

values('PHI', 'Philadelphia', '76ers', 'Est', '51-31', 622);

insert into echipe

values('TOR', 'Toronto', 'Raptors', 'Est', '48-34', 585);

insert into echipe

values('CHI', 'Chicago', 'Bulls', 'Est', '46-36', 561);

insert into echipe

values('BRK', 'Brooklyn', 'Nets', 'Est', '44-38', 537);

insert into echipe

values('ATL', 'Atlanta', 'Hawks', 'Est', '44-38', 537);

insert into echipe

values('CLE', 'Cleveland', 'Cavaliers', 'Est', '43-39', 524);

insert into echipe

values('CHA', 'Charlotte', 'Hornets', 'Est', '43-39', 524);

insert into echipe

values('NYK', 'New York', 'Knicks', 'Est', '37-45', 451);

insert into echipe

values('WAS', 'Washington', 'Wizards', 'Est', '35-47', 427);

insert into echipe

values('IND', 'Indiana', 'Pacers', 'Est', '25-57', 305);

insert into echipe

values('DET', 'Detroit', 'Pistons', 'Est', '23-59', 280);

insert into echipe

values('ORL', 'Orlando', 'Magic', 'Est', '22-60', 268);

insert into echipe

values('PHO', 'Phoenix', 'Suns', 'Vest', '64-18', 780);

insert into echipe

values('MEM', 'Memphis', 'Grizzlies', 'Vest', '56-26', 683);

insert into echipe

values('GSW', 'Golden State', 'Warriors', 'Vest', '53-29', 646);

insert into echipe

values('DAL', 'Dallas', 'Mavericks', 'Vest', '52-30', 634);

insert into echipe

values('UTA', 'Utah', 'Jazz', 'Vest', '49-33', 598);

insert into echipe

values('DEN', 'Denver', 'Nuggets', 'Vest', '48-34', 585);

insert into echipe

values('MIN', 'Minnesota', 'Timberwolves', 'Vest', '46-36', 561);

insert into echipe

values('NOL', 'New Orleans', 'Pelicans', 'Vest', '42-40', 512);

insert into echipe

values('CLI', 'Los Angeles', 'Clippers', 'Vest', '36-46', 439);

insert into echipe

values('SAN', 'San Antonio', 'Spurs', 'Vest', '34-48', 415);

insert into echipe

values('LAL', 'Los Angeles', 'Lakers', 'Vest', '33-49', 402);

insert into echipe

values('SAC', 'Sacramento', 'Kings', 'Vest', '30-52', 366);

insert into echipe

values('POR', 'Portland', 'Trail Blazers', 'Vest', '27-55', 329);

insert into echipe

values('OKC', 'Oklahoma City', 'Thunder', 'Vest', '24-58', 293);

insert into echipe

values('HOU', 'Houston', 'Rockets', 'Vest', '20-62', 244);

insert into antrenori

values(501, 'Nate', 'McMillan', 'ATL');

insert into antrenori

values(502, 'Ime', 'Udoka', 'BOS');

insert into antrenori

values(503, 'Steve', 'Nash', 'BRK');

insert into antrenori

values(504, 'Billy', 'Donovan', 'CHI');

insert into antrenori

values(505, 'James', 'Borrego', 'CHA');

insert into antrenori

values(506, 'J.B.', 'Bickerstaff', 'CLE');

insert into antrenori

values(507, 'Jason', 'Kidd', 'DAL');

insert into antrenori

values(508, 'Michael', 'Malone', 'DEN');

insert into antrenori

values(509, 'Steve', 'Kerr', 'GSW');

insert into antrenori

values(510, 'Stephen', 'Silas', 'HOU');

insert into antrenori

values(511, 'Rick', 'Carlisle', 'IND');

insert into antrenori

values(512, 'Tyronn', 'Lue', 'CLI');

insert into antrenori

values(513, 'Frank', 'Vogel', 'LAL');

insert into antrenori

values(514, 'Taylor', 'Jenkins', 'MEM');

insert into antrenori

values(515, 'Erik', 'Spoelstra', 'MIA');

insert into antrenori

values(516, 'Mike', 'Budenholzer', 'MIL');

insert into antrenori

values(517, 'Chris', 'Finch', 'MIN');

insert into antrenori

values(518, 'Willie', 'Green', 'NOL');

insert into antrenori

values(519, 'Tom', 'Thibodeau', 'NYK');

insert into antrenori

values(520, 'Mark', 'Daigneault', 'OKC');

insert into antrenori

values(521, 'Jamahl', 'Mosley', 'ORL');

insert into antrenori

values(522, 'Doc', 'Rivers', 'PHI');

insert into antrenori

values(523, 'Chauncey', 'Billups', 'POR');

insert into antrenori

values(524, 'Luke', 'Walton', 'SAC');

insert into antrenori

values(525, 'Gregg', 'Popovich', 'SAN');

insert into antrenori

values(526, 'Nick', 'Nurse', 'TOR');

insert into antrenori

values(527, 'Quin', 'Snyder', 'UTA');

insert into antrenori

values(528, 'Wes', 'Unseld', 'WAS');

insert into antrenori

values(529, 'Dwane', 'Casey', 'DET');

insert into antrenori

values(530, 'Monty', 'Williams', 'PHO');

insert into sponsori

values(1001, 'Nike');

insert into sponsori

values(1002, 'Rakuten');

insert into sponsori

values(1003, 'Bibigo');

insert into sponsori

values(1004, 'FedEx');

insert into sponsori

values(1005, 'Western Union');

insert into sponsori

values(1006, 'Honey');

insert into sponsori

values(1007, 'Prime');

insert into sponsori

values(1008, 'PayPal');

insert into sponsori

values(1000, 'Google');

insert into sponsori

values(1009, 'Motorola');

insert into sponsorizare

values('MIA', 1007);

insert into sponsorizare

values('MIA', 1003);

insert into sponsorizare

values('MIA', 1001);

insert into sponsorizare

values('BOS', 1002);

insert into sponsorizare

values('BOS', 1000);

insert into sponsorizare

values('BOS', 1009);

insert into sponsorizare

values('MIL', 1009);

insert into sponsorizare

values('MIL', 1004);

insert into sponsorizare

values('MIL', 1003);

insert into sponsorizare

values('PHI', 1001);

insert into sponsorizare

values('PHI', 1006);

insert into sponsorizare

values('PHI', 1001);

insert into sponsorizare

values('TOR', 1008);

insert into sponsorizare

values('TOR', 1002);

insert into sponsorizare

values('CHI', 1001);

insert into sponsorizare

values('BRK', 1001);

insert into sponsorizare

values('BRK', 1003);

insert into sponsorizare

values('BRK', 1007);

insert into sponsorizare

values('ATL', 1002);

insert into sponsorizare

values('ATL', 1004);

insert into sponsorizare

values('CHA', 1005);

insert into sponsorizare

values('CHA', 1001);

insert into sponsorizare

values('CHA', 1009);

insert into sponsorizare

values('NYK', 1004);

insert into sponsorizare

values('NYK', 1005);

insert into sponsorizare

values('NYK', 1006);

insert into sponsorizare

values('WAS', 1001);

insert into sponsorizare

values('IND', 1008);

insert into sponsorizare

values('DET', 1002);

insert into sponsorizare

values('ORL', 1009);

insert into sponsorizare

values('ORL', 1007);

insert into sponsorizare

values('PHO', 1004);

insert into sponsorizare

values('PHO', 1008);

insert into sponsorizare

values('MEM', 1001);

insert into sponsorizare

values('GSW', 1003);

insert into sponsorizare

values('GSW', 1008);

insert into sponsorizare

values('GSW', 1006);

insert into sponsorizare

values('DAL', 1002);

insert into sponsorizare

values('DAL', 1008);

insert into sponsorizare

values('UTA', 1004);

insert into sponsorizare

values('DEN', 1005);

insert into sponsorizare

values('MIN', 1009);

insert into sponsorizare

values('NOL', 1001);

insert into sponsorizare

values('NOL', 1004);

insert into sponsorizare

values('CLI', 1001);

insert into sponsorizare

values('CLI', 1000);

insert into sponsorizare

values('CLI', 1006);

insert into sponsorizare

values('LAL', 1001);

insert into sponsorizare

values('LAL', 1000);

insert into sponsorizare

values('LAL', 1003);

insert into sponsorizare

values('SAN', 1001);

insert into sponsorizare

values('SAN', 1007);

insert into sponsorizare

values('SAC', 1004);

insert into sponsorizare

values('POR', 1007);

insert into sponsorizare

values('POR', 1000);

insert into sponsorizare

values('OKC', 1002);

insert into sponsorizare

values('HOU', 1002);

insert into jucatori

values('BUT', 'Jimmy', 'Butler', 22,21.4, 5.9, 5.5, 'MIA');

insert into jucatori

values('ADE', 'Bam', 'Adebayo', 13,19.1, 10.1, 3.4, 'MIA');

insert into jucatori

values('TAT', 'Jayson', 'Tatum', 0, 26.9, 8.0, 4.4, 'BOS');

insert into jucatori

values('BRO', 'Jaylen', 'Brown', 7, 23.6, 6.1, 3.5, 'BOS');

insert into jucatori

values('ANT', 'Giannis', 'Antetokounmpo', 34, 29.9, 11.6, 5.8, 'MIL');

insert into jucatori

values('HOL', 'Jrue', 'Holiday', 21, 18.4, 5.0, 7.1, 'MIL');

insert into jucatori

values('EMB', 'Joel', 'Embid', 21, 30.6, 9.9, 4.4, 'PHI');

insert into jucatori

values('HAR', 'James', 'Harden', 1, 21.0, 7.1, 10.5, 'PHI');

insert into jucatori

values('SIA', 'Pascal', 'Siakam', 43, 22.8, 8.5, 5.3, 'TOR');

insert into jucatori

values('FVV', 'Fred', 'VanVleet', 23, 20.3, 4.4, 6.7, 'TOR');

insert into jucatori

values('DER', 'DeMar', 'DeRozan', 11, 27.9, 5.2, 4.9, 'CHI');

insert into jucatori

values('LAV', 'Zach', 'LaVine', 8, 24.4, 4.4, 4.2, 'CHI');

insert into jucatori

values('IRV', 'Kyrie', 'Irving', 11, 27.4, 4.4, 5.8, 'BRK');

insert into jucatori

values('DUR', 'Kevin', 'Durant', 7, 29.9, 7.4, 6.4, 'BRK');

insert into jucatori

values('YOU', 'Trae', 'Young', 11, 28.4, 3.7, 9.7, 'ATL');

insert into jucatori

values('COL', 'John', 'Collins', 20, 16.2, 7.8, 1.8, 'ATL');

insert into jucatori

values('GAR', 'Darius', 'Garland', 10, 21.7, 3.3, 8.6, 'CLE');

insert into jucatori

values('ALL', 'Jarrett', 'Allen', 31, 16.1, 10.8, 1.6, 'CLE');

insert into jucatori

values('BAL', 'LaMelo', 'Ball', 2, 20.1, 6.7, 7.6, 'CHA');

insert into jucatori

values('HAY', 'Gordon', 'Hayward', 20, 15.9, 4.6, 3.6, 'CHA');

insert into jucatori

values('BAR', 'RJ', 'Barrett', 9, 20.0, 5.8, 3.3, 'NYK');

insert into jucatori

values('RAN', 'Julius', 'Randle', 30, 20.1, 9.9, 5.1, 'NYK');

insert into jucatori

values('BEA', 'Bradley', 'Beal', 3, 23.2, 4.7, 6.6, 'WAS');

insert into jucatori

values('POZ', 'Kristaps', 'Porzingis', 6, 20.2, 8.1, 2.3, 'WAS');

insert into jucatori

values('HAL', 'Tyrese', 'Haliburton', 0, 17.5, 4.3, 9.6, 'IND');

insert into jucatori

values('HIE', 'Buddy', 'Hield', 24, 15.6, 3.2, 4.0, 'IND');

insert into jucatori

values('CUN', 'Cade', 'Cunningham', 2, 17.4, 5.5, 5.6, 'DET');

insert into jucatori

values('GRA', 'Jeramy', 'Grant', 9, 19.2, 4.1, 2.4, 'DET');

insert into jucatori

values('ANH', 'Cole', 'Anthony', 50, 16.3, 5.4, 5.7, 'ORL');

insert into jucatori

values('WAG', 'Franz', 'Wagner', 22, 15.5, 4.5, 2.9, 'ORL');

insert into jucatori

values('BOO', 'Devin', 'Booker', 1, 26.8, 5.0, 4.8, 'PHO');

insert into jucatori

values('PAU', 'Chris', 'Paul', 3, 14.7, 4.4, 10.8, 'PHO');

insert into jucatori

values('MOR', 'Ja', 'Morant', 12, 27.4, 5.7, 7.6, 'MEM');

insert into jucatori

values('BAN', 'Desmond', 'Bane', 22, 18.2, 4.4, 2.7, 'MEM');

insert into jucatori

values('CUR', 'Stephen', 'Curry', 30, 25.5, 5.2, 6.3, 'GSW');

insert into jucatori

values('WIG', 'Andrew', 'Wiggins', 22, 17.2, 4.5, 2.2, 'GSW');

insert into jucatori

values('DON', 'Luka', 'Doncic', 77, 28.4, 9.1, 8.7, 'DAL');

insert into jucatori

values('HAJ', 'Tim', 'Hardaway Jr', 11, 14.4, 3.7, 2.2, 'DAL');

insert into jucatori

values('MIT', 'Donovan', 'Mitchell', 45, 25.9, 4.2, 5.3, 'UTA');

insert into jucatori

values('GOB', 'Rudy', 'Gobert', 27, 15.6, 14.7, 1.1, 'UTA');

insert into jucatori

values('JOK', 'Nikola', 'Jokic', 15, 27.1, 13.8, 7.9, 'DEN');

insert into jucatori

values('GOR', 'Aaron', 'Gordon', 50, 15.0, 5.9, 2.5, 'DEN');

insert into jucatori

values('EDW', 'Anthony', 'Edwards', 1, 21.3, 4.8, 3.8, 'MIN');

insert into jucatori

values('KAT', 'Karl-Anthony', 'Towns', 32, 24.6, 10.6, 4.5, 'MIN');

insert into jucatori

values('ING', 'Brandon', 'Ingram', 14, 22.7, 5.8, 5.6, 'NOL');

insert into jucatori

values('MCC', 'CJ', 'McCollum', 3, 22.1, 4.3, 5.1, 'NOL');

insert into jucatori

values('GEO', 'Paul', 'George', 13, 24.3, 6.5, 6.9, 'CLI');

insert into jucatori

values('Jac', 'Reggie', 'Jackson', 1, 16.8, 3.6, 4.8, 'CLI');

insert into jucatori

values('MUR', 'Dejounte', 'Murray', 5, 21.1, 8.3, 9.2, 'SAN');

insert into jucatori

values('POE', 'Jakob', 'Poeltl', 25, 13.5, 9.3, 2.8, 'SAN');

insert into jucatori

values('LBJ', 'LeBron', 'James', 6, 30.3, 8.2, 6.2, 'LAL');

insert into jucatori

values('DAV', 'Anthony', 'Davis', 3, 23.2, 9.9, 3.1, 'LAL');

insert into jucatori

values('FOX', 'De Aaron', 'Fox', 5, 23.2, 3.9, 5.6, 'SAC');

insert into jucatori

values('SAB', 'Domantas', 'Sabonis', 10, 18.9, 12.1, 5.2, 'SAC');

insert into jucatori

values('LIL', 'Damian', 'Lillard', 0, 24.0, 4.1, 7.3, 'POR');

insert into jucatori

values('NUR', 'Jusuf', 'Nurkic', 27, 15.0, 11.1, 2.8, 'POR');

insert into jucatori

values('GIA', 'Shai', 'Gilgeous-Alexander', 2, 24.5, 5.0, 5.9, 'OKC');

insert into jucatori

values('GID', 'Josh', 'Giddey', 3, 12.5, 7.8, 6.4, 'OKC');

insert into jucatori

values('KPJ', 'Kevin', 'Porter Jr', 3, 15.6, 4.4, 6.2, 'HOU');

insert into jucatori

values('GRE', 'Jalen', 'Green', 0, 17.3, 3.4, 2.6, 'HOU');

insert into arene

values(101, 'American Airlines Center', 19200, 2001, 'DAL');

insert into arene

values(102, 'Amway Center', 18846, 2010, 'ORL');

insert into arene

values(103, 'ATT Center', 18418, 2002, 'SAN');

insert into arene

values(104, 'TD Garden', 19156, 1995, 'BOS');

insert into arene

values(105, 'Ball Arena', 19520, 1999, 'DEN');

insert into arene

values(106, 'Barclays Center', 17732, 2012, 'BRK');

insert into arene

values(107, 'Capital One Arena', 20356, 1997, 'WAS');

insert into arene

values(108, 'Chase Center', 18064, 2019, 'GSW');

insert into arene

values(109, 'Crypto.com Arena', 19068, 1999, 'CLI');

insert into arene

values(110, 'Crypto.com Arena', 18997, 1999, 'LAL');

insert into arene

values(111, 'FedExForum ', 17794, 2004, 'MEM');

insert into arene

values(112, 'Fiserv Forum', 17500, 2018, 'MIL');

insert into arene

values(113, 'Footprint Center', 17071, 1992, 'PHO');

insert into arene

values(114, 'FTX Arena', 19600, 1999, 'MIA');

insert into arene

values(115, 'Gainbridge Fieldhouse', 17923, 1999, 'IND');

insert into arene

values(116, 'Golden 1 Center', 17583, 2016, 'SAC');

insert into arene

values(117, 'Little Caesars Arena', 20332, 2017, 'DET');

insert into arene

values(118, 'Madison Square Garden', 19812, 1968, 'NYK');

insert into arene

values(119, 'Moda Center', 19441, 1995, 'POR');

insert into arene

values(120, 'Paycom Center', 18203, 2002, 'OKC');

insert into arene

values(121, 'Rocket Mortgage FieldHouse', 19432, 1994, 'CLE');

insert into arene

values(122, 'Scotiabank Arena', 19800, 1999, 'TOR');

insert into arene

values(123, 'Smoothie King Center', 16867, 1999, 'NOL');

insert into arene

values(124, 'Spectrum Center', 19077, 2005, 'CHA');

insert into arene

values(125, 'State Farm Arena', 18118, 1999, 'ATL');

insert into arene

values(126, 'Target Center', 18978, 1990, 'MIN');

insert into arene

values(127, 'Toyota Center', 18055, 203, 'HOU');

insert into arene

values(128, 'United Center', 20917, 1994, 'CHI');

insert into arene

values(129, 'Vivint Arena', 18306, 1991, 'UTA');

insert into arene

values(130, 'Wells Fargo Center', 20478, 1996, 'PHI');

insert into Playoffs

values(1, '1st Round', 'MIA', 'ATL', 114, 125, 4, 1);

insert into Playoffs

values(2, '1st Round', 'PHI', 'TOR', 130, 122, 4, 2);

insert into Playoffs

values(3, '1st Round', 'MIL', 'CHI', 112, 128, 4, 1);

insert into Playoffs

values(4, '1st Round', 'BOS', 'BRK', 104, 106, 4, 0);

insert into Playoffs

values(5, '1st Round', 'PHO', 'NOL', 113, 123, 4, 2);

insert into Playoffs

values(6, '1st Round', 'DAL', 'UTA', 101, 129, 4, 2);

insert into Playoffs

values(7, '1st Round', 'GSW', 'DEN', 108, 105, 4, 1);

insert into Playoffs

values(8, '1st Round', 'MEM', 'MIN', 111, 126, 4, 2);

insert into Playoffs

values(9, 'Conference Semifinals', 'MIA', 'PHI', 114, 130, 4, 2);

insert into Playoffs

values(10, 'Conference Semifinals', 'BOS', 'MIL', 104, 112, 4, 3);

insert into Playoffs

values(11, 'Conference Semifinals', 'DAL', 'PHO', 101, 113, 4, 3);

insert into Playoffs

values(12, 'Conference Semifinals', 'GSW', 'MEM', 108, 111, 4, 2);

insert into Playoffs

values(13, 'Conference Finals', 'BOS', 'MIA', 104, 114, 4, 3);

insert into Playoffs

values(14, 'Conference Finals', 'GSW', 'DAL', 108, 101, 4, 1);

insert into Playoffs

values(15, 'Finals', 'GSW', 'BOS', 108, 104, 4, 2);

insert into Televiziuni

values(201, 'TNT', 2024);

insert into Televiziuni

values(202, 'ABC', 2024);

insert into Televiziuni

values(203, 'ESPN', 2027);

insert into Televiziuni

values(204, 'NBC Sports', 2029);

insert into Televiziuni

values(205, 'TSN', 2025);

insert into Televiziuni

values(206, 'NBA TV', 2027);

insert into televizare

values(1, 203);

insert into televizare

values(2, 202);

insert into televizare

values(3, 206);

insert into televizare

values(4, 201);

insert into televizare

values(5, 205);

insert into televizare

values(6, 206);

insert into televizare

values(7, 204);

insert into televizare

values(8, 201);

insert into televizare

values(9, 205);

insert into televizare

values(10, 202);

insert into televizare

values(11, 202);

insert into televizare

values(12, 203);

insert into televizare

values(13, 204);

insert into televizare

values(14, 203);

insert into televizare

values(15, 201);

**Cerinta 6**

--6

--Pentru o runda data afisati antrenorii echipelor care si-au castigat meciurile din acea runda

create or replace procedure p6(the\_round Playoffs.runda%TYPE) is

type t is table of playoffs%rowtype;

meciuri t:= t();

type t\_1 is table of antrenori%rowtype index by pls\_integer;

type t\_2 is table of echipe%rowtype index by pls\_integer;

antrenori\_playoff t\_1;

echipele t\_2;

nr number;

Begin

select count(\*) into nr

from playoffs

where the\_round = runda;

meciuri.extend(nr+1);

select\*

bulk collect into meciuri

from playoffs

where playoffs.runda = the\_round;

select\* bulk collect into echipele

from echipe;

for i in meciuri.first..meciuri.last loop

for j in echipele.first..echipele.last loop

if(meciuri(i).id\_echipa\_1 = echipele(j).id\_echipa)

then DBMS\_OUTPUT.PUT\_LINE('Echipa ' || echipele(j).oras || ' ' || echipele(j).nume\_echipa || ' este antrenata de: ');

select \* bulk collect into antrenori\_playoff

from antrenori

where id\_echipa = meciuri(i).id\_echipa\_1;

for k in antrenori\_playoff.first..antrenori\_playoff.last loop

DBMS\_OUTPUT.PUT\_LINE(antrenori\_playoff(k).prenume || ' ' || antrenori\_playoff(k).nume);

end loop;

end if;

end loop;

end loop;

END;

/

BEGIN

p6('Conference Semifinals');

END;

/

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Description automatically generated

**Cerinta 7**

--7

--Pentru o echipa data afisati recordul din sezonul regulat al tuturor echipelor ce au jucat impotriva acesteia in playoffs

create or replace procedure p7(echipa echipe.id\_echipa %TYPE) is

cursor c(id\_team echipe.id\_echipa%TYPE) is

select \*

from playoffs

where playoffs.id\_echipa\_1 = id\_team or playoffs.id\_echipa\_2 = id\_team;

cursor c\_record(id\_team echipe.id\_echipa%TYPE) is

select record\_meciuri

from echipe

where id\_echipa = id\_team;

cursor c1(id\_team echipe.id\_echipa%TYPE) is

select oras, nume\_echipa

from echipe

where id\_echipa = id\_team;

v\_record varchar2(50);

team echipe.id\_echipa%TYPE;

v\_oras echipe.oras%TYPE;

v\_nume echipe.nume\_echipa%TYPE;

BEGIN

for i in c(echipa) loop

if i.id\_echipa\_1 = echipa then

team := i.id\_echipa\_2;

else

team := i.id\_echipa\_1;

end if;

open c\_record(team);

fetch c\_record into v\_record;

open c1(team);

fetch c1 into v\_oras, v\_nume;

DBMS\_OUTPUT.PUT\_LINE('Echipa ' || v\_oras || ' ' || v\_nume || ' a avut recordul ' || v\_record || ' in sezonul regulat');

close c\_record;

close c1;

end loop;

END;

/

BEGIN

p7('GSW');

END;

/

Graphical user interface, text, application, email

Description automatically generated

**Cerinta 8**

--8

--Pentru un sponsor dat si o conferinta data faceti o functie care returneaza echipa cu cele mai multe puncte care are acest sponsor si

--care joaca in aceasta conferinta

create or replace function p8(sponsor sponsori.nume\_sponsor%TYPE, conference echipe.conferinta%TYPE) return varchar2 is

the\_town echipe.nume\_echipa%TYPE;

v\_nume\_echipa echipe.nume\_echipa%TYPE;

v\_puncte echipe.puncte%TYPE;

v\_regiune echipe.conferinta%TYPE;

maxim number := -1;

maxim1 number := -1;

no\_sponsored exception;

mai\_multe exception;

BEGIN

for i in(select nume\_echipa, puncte, conferinta

from echipe e, sponsori s, sponsorizare ss

where s.nume\_sponsor = sponsor and e.id\_echipa = ss.id\_echipa and s.id\_sponsor = ss.id\_sponsor) loop

v\_nume\_echipa := i.nume\_echipa;

v\_puncte := i.puncte;

v\_regiune := i.conferinta;

if v\_puncte > maxim and v\_regiune = conference then

maxim := v\_puncte;

the\_town := v\_nume\_echipa;

else

if v\_puncte = maxim and v\_regiune = conference then

maxim1 := v\_puncte;

end if;

end if;

end loop;

if maxim = -1 then

raise no\_sponsored;

end if;

if maxim = maxim1 then

raise mai\_multe;

end if;

return the\_town;

Exception

when no\_sponsored then

return ('Acest sponsor nu sponsorizeaza nicio echipa din aceasta conferinta');

when mai\_multe then

return ('Mai multe echipe cu acest sponsor au punctajul cel mai mare din conferinta dintre echipele cu acest sponsor');

END;

/

BEGIN

DBMS\_OUTPUT.PUT\_LINE(p8('Google', 'Vest'));

END;

/

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Description automatically generated

BEGIN

DBMS\_OUTPUT.PUT\_LINE(p8('Linux', 'Vest'));

END;

/

Graphical user interface, text, application, email

Description automatically generated

BEGIN

DBMS\_OUTPUT.PUT\_LINE(p8('Motorola', 'Est'));

END;

/

Graphical user interface, text, application, email

Description automatically generated

**Cerinta 9**

--9

--Pentru un numar dat, afisati jucatorii a carui echipa a jucat in prima runda din playoffs pe canalul al carui contract se termina

--in anul transmis ca parametru

create or replace procedure p9(an number) is

v\_nume\_tv televiziuni.nume\_tv%TYPE;

BEGIN

select nume\_tv

into v\_nume\_tv

from televiziuni

where sfarsit\_contract = an;

for i in (select prenume, nume

from jucatori j, echipe e, playoffs p, televizare tt, televiziuni t

where t.id\_tv = tt.id\_tv and t.nume\_tv = v\_nume\_tv and p.id\_meci = tt.id\_meci and p.id\_meci >= 1 and p.id\_meci <= 8

and (e.id\_echipa = p.id\_echipa\_1 or e.id\_echipa = p.id\_echipa\_2) and j.id\_echipa = e.id\_echipa) loop

DBMS\_OUTPUT.PUT\_LINE(i.prenume || ' ' || i.nume);

end loop;

EXCEPTION

when no\_data\_found then

DBMS\_OUTPUT.PUT\_LINE('Niciunei televiziuni nu i se incheie contractul in anul specificat');

when too\_many\_rows then

DBMS\_OUTPUT.PUT\_LINE('Mai multe televiziuni isi incheie contractul in acest an');

when others then

DBMS\_OUTPUT.PUT\_LINE('Alta eroare!');

END;

/

BEGIN

p9(2025);

END;

/

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BEGIN

p9(2030);

END;

/

Graphical user interface, text, application, email

Description automatically generated

BEGIN

p9(2024);

END;

/

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Description automatically generated

**Cerinta 10**

--Creati un trigger care la declansare nu permite modificarea tabelei playoffs 2022 decat cu o zi inaintea inceperii acestora

create or replace trigger trig10

before insert or update or delete on playoffs

BEGIN

if(sysdate != '15/APR/2022') then

RAISE\_APPLICATION\_ERROR(-20001, 'Nu se poate modifica tabela decat cu o zi inaintea inceperii playoff-urilor');

end if;

END;

/

update playoffs

set victorii\_echipa\_1 = 3

where id\_meci = 1;

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**Cerinta 11**

--Creeati un trigger care se declanseaza cand numarul de pe tricoul unui jucator este modificat

--si este mai mare decat precedentul

create or replace trigger trig11

before update of numar on jucatori

for each row

when (new.numar > old.numar)

BEGIN

RAISE\_APPLICATION\_ERROR(-20002, 'numarul de pe tricoul unui jucator nu poate fi mai mare decat precedentul');

END;

/

update jucatori

set numar = 23

where prenume = 'LeBron';

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Description automatically generated

**Cerinta 12**

--Creeati un triger care se declanseaza de fiecare data cand se executa o operatie de tip ldd

create table modificari(

utilizator varchar2(30),

nume\_obiect varchar2(50),

eveniment varchar2(50));

create or replace trigger trig12

after create or drop or alter on schema

BEGIN

insert into modificari

values(SYS.LOGIN\_USER, SYS.DICTIONARY\_OBJ\_NAME, SYS.DICTIONARY\_OBJ\_TYPE);

END;

/

create table jucatori\_1 as select\* from jucatori;

alter table jucatori\_1

drop column numar;

drop table jucatori\_1;

select\* from modificari;

Graphical user interface, application

Description automatically generated

**Cerinta 13**

--13

create or replace package pachet is

procedure p6(the\_round Playoffs.runda%TYPE);

procedure p7(echipa echipe.id\_echipa %TYPE);

function p8(sponsor sponsori.nume\_sponsor%TYPE, conference echipe.conferinta%TYPE) return varchar2;

procedure p9(an number);

END pachet;

/

create or replace package body pachet is

procedure p6(the\_round Playoffs.runda%TYPE) is

type t is table of playoffs%rowtype;

meciuri t:= t();

type t\_1 is table of antrenori%rowtype index by pls\_integer;

type t\_2 is table of echipe%rowtype index by pls\_integer;

antrenori\_playoff t\_1;

echipele t\_2;

nr number;

Begin

select count(\*) into nr

from playoffs

where the\_round = runda;

meciuri.extend(nr+1);

select\*

bulk collect into meciuri

from playoffs

where playoffs.runda = the\_round;

select\* bulk collect into echipele

from echipe;

for i in meciuri.first..meciuri.last loop

for j in echipele.first..echipele.last loop

if(meciuri(i).id\_echipa\_1 = echipele(j).id\_echipa)

then DBMS\_OUTPUT.PUT\_LINE('Echipa ' || echipele(j).oras || ' ' || echipele(j).nume\_echipa || ' este antrenata de: ');

select \* bulk collect into antrenori\_playoff

from antrenori

where id\_echipa = meciuri(i).id\_echipa\_1;

for k in antrenori\_playoff.first..antrenori\_playoff.last loop

DBMS\_OUTPUT.PUT\_LINE(antrenori\_playoff(k).prenume || ' ' || antrenori\_playoff(k).nume);

end loop;

end if;

end loop;

end loop;

end p6;

procedure p7(echipa echipe.id\_echipa %TYPE) is

cursor c(id\_team echipe.id\_echipa%TYPE) is

select \*

from playoffs

where playoffs.id\_echipa\_1 = id\_team or playoffs.id\_echipa\_2 = id\_team;

cursor c\_record(id\_team echipe.id\_echipa%TYPE) is

select record\_meciuri

from echipe

where id\_echipa = id\_team;

cursor c1(id\_team echipe.id\_echipa%TYPE) is

select oras, nume\_echipa

from echipe

where id\_echipa = id\_team;

v\_record varchar2(50);

team echipe.id\_echipa%TYPE;

v\_oras echipe.oras%TYPE;

v\_nume echipe.nume\_echipa%TYPE;

BEGIN

for i in c(echipa) loop

if i.id\_echipa\_1 = echipa then

team := i.id\_echipa\_2;

else

team := i.id\_echipa\_1;

end if;

open c\_record(team);

fetch c\_record into v\_record;

open c1(team);

fetch c1 into v\_oras, v\_nume;

DBMS\_OUTPUT.PUT\_LINE('Echipa ' || v\_oras || ' ' || v\_nume || ' a avut recordul ' || v\_record || ' in sezonul regulat');

close c\_record;

close c1;

end loop;

END p7;

function p8(sponsor sponsori.nume\_sponsor%TYPE, conference echipe.conferinta%TYPE) return varchar2 is

the\_town echipe.nume\_echipa%TYPE;

v\_nume\_echipa echipe.nume\_echipa%TYPE;

v\_puncte echipe.puncte%TYPE;

v\_regiune echipe.conferinta%TYPE;

maxim number := -1;

maxim1 number := -1;

no\_sponsored exception;

mai\_multe exception;

BEGIN

for i in(select nume\_echipa, puncte, conferinta

from echipe e, sponsori s, sponsorizare ss

where s.nume\_sponsor = sponsor and e.id\_echipa = ss.id\_echipa and s.id\_sponsor = ss.id\_sponsor) loop

v\_nume\_echipa := i.nume\_echipa;

v\_puncte := i.puncte;

v\_regiune := i.conferinta;

if v\_puncte > maxim and v\_regiune = conference then

maxim := v\_puncte;

the\_town := v\_nume\_echipa;

else

if v\_puncte = maxim and v\_regiune = conference then

maxim1 := v\_puncte;

end if;

end if;

end loop;

if maxim = -1 then

raise no\_sponsored;

end if;

if maxim = maxim1 then

raise mai\_multe;

end if;

return the\_town;

Exception

when no\_sponsored then

return ('Acest sponsor nu sponsorizeaza nicio echipa din aceasta conferinta');

when mai\_multe then

return ('Mai multe echipe cu acest sponsor au punctajul cel mai mare din conferinta dintre echipele cu acest sponsor');

END p8;

procedure p9(an number) is

v\_nume\_tv televiziuni.nume\_tv%TYPE;

BEGIN

select nume\_tv

into v\_nume\_tv

from televiziuni

where sfarsit\_contract = an;

for i in (select prenume, nume

from jucatori j, echipe e, playoffs p, televizare tt, televiziuni t

where t.id\_tv = tt.id\_tv and t.nume\_tv = v\_nume\_tv and p.id\_meci = tt.id\_meci and p.id\_meci >= 1 and p.id\_meci <= 8

and (e.id\_echipa = p.id\_echipa\_1 or e.id\_echipa = p.id\_echipa\_2) and j.id\_echipa = e.id\_echipa) loop

DBMS\_OUTPUT.PUT\_LINE(i.prenume || ' ' || i.nume);

end loop;

EXCEPTION

when no\_data\_found then

DBMS\_OUTPUT.PUT\_LINE('Niciunei televiziuni nu i se incheie contractul in anul specificat');

when too\_many\_rows then

DBMS\_OUTPUT.PUT\_LINE('Mai multe televiziuni isi incheie contractul in acest an');

when others then

DBMS\_OUTPUT.PUT\_LINE('Alta eroare!');

END p9;

END pachet;

/

execute pachet.p7('GSW');

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**Cerinta 14**

--14

--Pentru o echipa data sa se afiseze punctajul din sezonul regulat, numarul de victorii din playoffs

--si cati dintre jucatorii ei au avut peste 3.0 pase pe meci in sezonul regulat

create or replace package echipa is

type t is table of echipe%Rowtype index by pls\_integer;

echipele t;

type t1 is table of playoffs%Rowtype;

meciuri t1:= t1();

type t3 is table of jucatori%Rowtype index by pls\_integer;

players t3;

function the\_id(the\_name echipe.nume\_echipa%TYPE) return echipe.id\_echipa%TYPE;

function puncte\_sezon(the\_team echipe.nume\_echipa%TYPE) return number;

procedure victorii\_playoff(id\_team echipe.id\_echipa%TYPE);

procedure jucatori\_assisturi(id\_team echipe.id\_echipa%TYPE);

procedure all\_toghether(the\_name echipe.nume\_echipa%TYPE);

END echipa;

/

create or replace package body echipa is

function the\_id (the\_name echipe.nume\_echipa%TYPE) return echipe.id\_echipa%TYPE is

team\_id echipe.id\_echipa%type;

BEGIN

select id\_echipa

into team\_id

from echipe

where nume\_echipa = the\_name;

return team\_id;

end the\_id;

function puncte\_sezon(the\_team echipe.nume\_echipa%TYPE) return number is

BEGIn

select \* bulk collect into echipele

from echipe;

for i in echipele.first..echipele.last loop

if echipele(i).nume\_echipa = the\_team then

return echipele(i).puncte;

end if;

end loop;

end puncte\_sezon;

procedure victorii\_playoff(id\_team echipe.id\_echipa%TYPE) is

victorii number := 0;

nr number := 0;

BEGIN

select count(\*) into nr

from playoffs;

meciuri.extend(nr+1);

select \* bulk collect into meciuri

from playoffs;

for i in meciuri.first..meciuri.last loop

if meciuri(i).id\_echipa\_1 = id\_team then

victorii:=victorii + 1;

end if;

end loop;

DBMS\_OUTPUT.PUT\_LINE('A castigat ' || victorii || ' in aceste playoff-uri');

end victorii\_playoff;

procedure jucatori\_assisturi(id\_team echipe.id\_echipa%TYPE)

IS

nr\_jucatori number := 0;

BEGIN

select \* bulk collect into players

from jucatori;

for i in players.first..players.last loop

if(players(i).id\_echipa = id\_team and players(i).assisturi > 3.0 ) then

nr\_jucatori:=nr\_jucatori + 1;

end if;

end loop;

DBMS\_OUTPUT.PUT\_LINE('Are ' || nr\_jucatori || ' cu peste 3 assisturi pe meci in sezonul regulat');

end jucatori\_assisturi;

procedure all\_toghether(the\_name echipe.nume\_echipa%TYPE) is

points number;

echipa\_id echipe.id\_echipa%type;

begin

points := puncte\_sezon(the\_name);

echipa\_id := the\_id(the\_name);

DBMS\_OUTPUT.PUT\_LINE(the\_name || ' au avut ' || points || ' in sezonul regulat si:');

victorii\_playoff(echipa\_id);

jucatori\_assisturi(echipa\_id);

end all\_toghether;

end echipa;

/

execute echipa.all\_toghether('Celtics');

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