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CREATE TABLE ENGINE(
    ENGINE_ID VARCHAR(10) NOT NULL PRIMARY KEY,
    ENGINE_NAME VARCHAR(15) NOT NULL,
    RATING CHAR(4) NOT NULL,
    ENGINE_LAUNCH_DATE DATE NOT NULL,
    ENGINE_TYPE VARCHAR(15) NOT NULL
);
INSERT INTO ENGINE VALUES ('ENGINE0001','Stockfish NNUE', '3500', '2020-09-02','N. Network');
INSERT INTO ENGINE VALUES ('ENGINE0002','Komodo', '3400','2018-12-17','Traditional');
INSERT INTO ENGINE VALUES ('ENGINE0003','Leela chess', '3600', '2018-01-09','N. Network');
INSERT INTO ENGINE VALUES ('ENGINE0004','Alpha zero', '3600','20-12-17','N. Network');
INSERT INTO ENGINE VALUES ('ENGINE0005','Fat fritz', '3400','21-07-01','Traditional');

CREATE TABLE COACH(
    COACH_ID VARCHAR(10) NOT NULL PRIMARY KEY,
    COACH_FNAME VARCHAR(15) NOT NULL,
    COACH_LNAME VARCHAR(15) NOT NULL,
    COACH_DOB DATE NOT NULL,
    COACH_EXP CHAR(10)
);
INSERT INTO COACH VALUES ('COACH00001', 'Peter', 'Heine Nielsen', '1973-05-24', '10');
INSERT INTO COACH VALUES ('COACH00002', 'Rustam', 'Khazimdzhanov', '1979-12-05', '12');
INSERT INTO COACH VALUES ('COACH00003', 'Peter', 'Leko', '1979-09-08', '05');
INSERT INTO COACH VALUES ('COACH00004', 'Jacob', 'Aagard', '1973-07-31', '15');
INSERT INTO COACH VALUES ('COACH00005', 'RB', 'Ramesh', '1976-04-20', '20');

CREATE TABLE OPENINGS(
    OPENING_ID VARCHAR(10) NOT NULL PRIMARY KEY,
    OPENING_NAME VARCHAR(15) NOT NULL,
    OPENING_PGN VARCHAR(1000) NOT NULL,
    WHITE_WIN_PERCENT CHAR(3) NOT NULL,
    BLACK_WIN_PERCENT CHAR(3) NOT NULL,
    DRAW_PERCENT CHAR(3) NOT NULL
);
INSERT INTO OPENINGS VALUES ('OPENING001','Ruy Lopez','1. e4 e5 2. Nf3 Nc6 3. Bb5','51','44','5');
INSERT INTO OPENINGS VALUES ('OPENING002','Berlin','1. e4 e5 2. Nf3 Nc6 3. Bb5 Nf6','51','43','6');
INSERT INTO OPENINGS VALUES ('OPENING003','English','1. c4 e5 2. Nc3 Nf6 3. g3','51','44','5');

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INSERT INTO OPENINGS VALUES ('OPENING004','Grunfeld','1. d4 Nf6 2. c4 g6
3. Nc3 d5','51','44','5');
INSERT INTO OPENINGS VALUES ('OPENING005','Anti berlin','1. e4 e5 2. Nf3
Nc6 3. Bb5 Nf6 4. d3 Bc5','50','45','5');
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CREATE TABLE PLATFORM(
    PLATFORM_ID VARCHAR(10) NOT NULL PRIMARY KEY,
    PLATFORM_NAME VARCHAR(15) NOT NULL,
    PLATFORM_TYPE VARCHAR(8) NOT NULL
);
INSERT INTO PLATFORM VALUES ('PLATFORM01', 'chess.com' , 'ONLINE');
INSERT INTO PLATFORM VALUES ('PLATFORM02', 'FIDE OTB', 'OFFLINE');
INSERT INTO PLATFORM VALUES ('PLATFORM03', 'lichess.com' , 'ONLINE');
INSERT INTO PLATFORM VALUES ('PLATFORM04', 'USCF OTB', 'OFFLINE');
INSERT INTO PLATFORM VALUES ('PLATFORM05', 'ACF OTB', 'OFFLINE');
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CREATE TABLE ONLINE(
    PLATFORM_ID VARCHAR(10) NOT NULL PRIMARY KEY,
    ONLINE_PLATFORM_LAUNCH DATE NOT NULL,
    ONLINE_PLATFORM_OWNER VARCHAR(20),
    FOREIGN KEY (PLATFORM_ID) REFERENCES PLATFORM(PLATFORM_ID)
);
INSERT INTO ONLINE VALUES ('PLATFORM01', '2007-06-01' , 'Erik Allebest');
INSERT INTO ONLINE VALUES ('PLATFORM03', '2010-06-20' , 'Thibault
Duplessis');
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CREATE TABLE OFFLINE(
    PLATFORM_ID VARCHAR(10) NOT NULL PRIMARY KEY,
    OFFLINE_PLATFORM_DOB DATE NOT NULL,
    OFFLINE_PLATFORM_DIRECTOR VARCHAR(20),
    FOREIGN KEY (PLATFORM_ID) REFERENCES PLATFORM(PLATFORM_ID)
);
INSERT INTO OFFLINE VALUES ('PLATFORM02', '1924-07-20', 'Emil Sutovsky');
INSERT INTO OFFLINE VALUES ('PLATFORM04', '1939-12-27', 'Mike Hoffpauir');
INSERT INTO OFFLINE VALUES ('PLATFORM05', '1894-01-01', 'Bill Gletsos');
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CREATE TABLE TIME_CONTROL(
    TIME_CONTROL_ID VARCHAR(10) NOT NULL PRIMARY KEY,
    TIME_CONTROL_TYPE VARCHAR(10) NOT NULL,
    TIME_CONTROL_TIME CHAR(3) NOT NULL,
    TIME_CONTROL_INCREMENT CHAR(2),
    TIME_CONTROL_DESCRIPTION VARCHAR(1000)
);
INSERT INTO TIME_CONTROL VALUES ('TIME000001','Classical','90','30','90
mins with 30 sec increment');
INSERT INTO TIME_CONTROL VALUES ('TIME000002','Rapid','25','10','25 mins
with 10 sec increment');
INSERT INTO TIME_CONTROL VALUES ('TIME000003','Classical','120','45','120
mins with 45 sec increment');
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INSERT INTO TIME_CONTROL VALUES ('TIME000004','Blitz','05','02','5 mins
with 2 sec increment');
INSERT INTO TIME_CONTROL VALUES ('TIME000005','Bullet','1','1','1 min with
1 sec increment');

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CREATE TABLE PLAYER(
    PLAYER_ID VARCHAR(10) NOT NULL PRIMARY KEY,
    PLAYER_FNAME VARCHAR(15) NOT NULL,
    PLAYER_LNAME VARCHAR(15) NOT NULL,
    PLAYER_DOB DATE NOT NULL,
    PLAYER_RATING CHAR(4) NOT NULL,
    TOTAL_GAMES CHAR(6) NOT NULL,
    PLAYER_WINPERCENT CHAR(3) NOT NULL,
    PLAYER_DRAWPERCENT CHAR(3) NOT NULL,
    PLAYER_LOSSPERCENT CHAR(3) NOT NULL,
    COACH_ID VARCHAR(10),
    FOREIGN KEY (COACH_ID) REFERENCES COACH(COACH_ID)
);

INSERT INTO PLAYER VALUES ('PLAYER0001','Magnus','Carlsen','1990-11-
30','2847','70034','60','30','10','COACH00001');
INSERT INTO PLAYER VALUES ('PLAYER0002','Fabiano','Caruana','1992-07-
30','2792','61024','59','31','10','COACH00002');
INSERT INTO PLAYER VALUES ('PLAYER0003','Viswanathan','Anand','1969-12-
11','2751','90834','58','30','12',NULL);
INSERT INTO PLAYER VALUES ('PLAYER0004','Ian','Nepomniatchchi','1990-07-
14','2792','60034','58','48','4','COACH00003');
INSERT INTO PLAYER VALUES ('PLAYER0005','Anish','Giri','1994-06-
28','2770','50034','54','26','20','COACH00004');

CREATE TABLE TITLE(
    TITLE_ID VARCHAR(10) NOT NULL PRIMARY KEY,
    TITLE_NAME VARCHAR(20) NOT NULL,
    TITLE_YEAR DATE NOT NULL,
    PLAYER_ID VARCHAR(10) NOT NULL,
    TIME_CONTROL_ID VARCHAR(10) NOT NULL,
    FOREIGN KEY (PLAYER_ID) REFERENCES PLAYER(PLAYER_ID),
    FOREIGN KEY (TIME_CONTROL_ID) REFERENCES TIME_CONTROL(TIME_CONTROL_ID)
);

INSERT INTO TITLE VALUES ('TITLE00001','World Champion','2019-01-
01','PLAYER0001','TIME000001');
INSERT INTO TITLE VALUES ('TITLE00002','World Rapid Champion','2019-01-
01','PLAYER0001','TIME000002');
INSERT INTO TITLE VALUES ('TITLE00003','World Champion','2012-01-
01','PLAYER0003','TIME000001');
INSERT INTO TITLE VALUES ('TITLE00004','World Blitz Champion','2019-01-
01','PLAYER0001','TIME000004');
INSERT INTO TITLE VALUES ('TITLE00005','World Cup winner','2000-01-
01','PLAYER0003','TIME000001');

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CREATE TABLE ANALYSIS(

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    ANALYSIS_ID VARCHAR(10) NOT NULL PRIMARY KEY,
    ENGINE_ID VARCHAR(10) NOT NULL,
    ANALYSIS_DEPTH VARCHAR(1000) NOT NULL,
    BEST_MOVES CHAR(3) NOT NULL,
    GOOD_MOVES CHAR(3) NOT NULL,
    INNACURACY CHAR(3) NOT NULL,
    MISTAKES CHAR(3) NOT NULL,
    BLUNDERS CHAR(3) NOT NULL,
    FINAL_EVAL VARCHAR(4),
    ANALYSIS_DESCRIPTION VARCHAR(1000),
    FOREIGN KEY (ENGINE_ID) REFERENCES ENGINE(ENGINE_ID)
);
INSERT INTO ANALYSIS VALUES
('ANALYSIS01','ENGINE0001','30','43','5','4','2','1','7.7','Game where
white was magnus and black was fabiano');
INSERT INTO ANALYSIS VALUES
('ANALYSIS02','ENGINE0001','30','35','17','10','1','0','2.2','Game where
white was magnus and black was anand');
INSERT INTO ANALYSIS VALUES
('ANALYSIS03','ENGINE0001','30','10','5','2','0','0','7.7','Game where
white was Vishy and black was Ian Nepomniatchchi');
INSERT INTO ANALYSIS VALUES
('ANALYSIS04','ENGINE0001','30','34','5','4','2','1','7.7','Game where
white was Anish and black was Magnus');
INSERT INTO ANALYSIS VALUES
('ANALYSIS05','ENGINE0001','30','34','10','4','0','1','7.7','Game where
white was Ian and black was Nepo');

CREATE TABLE TOURNAMENTS(
    TOURNAMENT_ID VARCHAR(10) NOT NULL PRIMARY KEY,
    TOURNAMENT_NAME VARCHAR(20) NOT NULL,
    TOURNAMENT_YEAR DATE NOT NULL,
    TIME_CONTROL_ID VARCHAR(10) NOT NULL,
    PLATFORM_ID VARCHAR(10) NOT NULL,
    FOREIGN KEY (PLATFORM_ID) REFERENCES PLATFORM(PLATFORM_ID),
    FOREIGN KEY (TIME_CONTROL_ID) REFERENCES TIME_CONTROL(TIME_CONTROL_ID)
);
INSERT INTO TOURNAMENTS VALUES ('TOUR000001','World Championship','2018-
11-30','TIME000001','PLATFORM02');
INSERT INTO TOURNAMENTS VALUES ('TOUR000002','Botvinnik Mem Rapid','2011-
09-03','TIME000002','PLATFORM02');
INSERT INTO TOURNAMENTS VALUES ('TOUR000003','Norway chess blitz','2016-
09-03','TIME000004','PLATFORM02');
INSERT INTO TOURNAMENTS VALUES ('TOUR000004','Online nations cup','2020-
05-07','TIME000002','PLATFORM01');
INSERT INTO TOURNAMENTS VALUES ('TOUR000005','Chess world cup','2017-05-
07','TIME000001','PLATFORM02');

CREATE TABLE GAMES(
    GAME_ID VARCHAR(10) NOT NULL PRIMARY KEY,
    OPENING_ID VARCHAR(10) NOT NULL,

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    GAME_PGN VARCHAR(1000) NOT NULL,
    GAME_DATE DATE NOT NULL,
    WHITE_PLAYER_ID VARCHAR(10) NOT NULL,
    BLACK_PLAYER_ID VARCHAR(10) NOT NULL,
    GAME_RESULT CHAR(3) NOT NULL,
    TIME_CONTROL_ID VARCHAR(10) NOT NULL,
    TOURNAMENT_ID VARCHAR(10),
    ANALYSIS_ID VARCHAR(10),
    FOREIGN KEY (OPENING_ID) REFERENCES OPENINGS(OPENING_ID),
    FOREIGN KEY (TIME_CONTROL_ID) REFERENCES
TIME_CONTROL(TIME_CONTROL_ID),
    FOREIGN KEY (TOURNAMENT_ID) REFERENCES TOURNAMENTS(TOURNAMENT_ID),
    FOREIGN KEY (WHITE_PLAYER_ID) REFERENCES PLAYER(PLAYER_ID),
    FOREIGN KEY (BLACK_PLAYER_ID) REFERENCES PLAYER(PLAYER_ID),
    FOREIGN KEY (ANALYSIS_ID) REFERENCES ANALYSIS(ANALYSIS_ID)
);

INSERT INTO GAMES VALUES ('GAME000001','OPENING001','1. e4 e5 2. Nf3 Nc6
3. Bb5 Nf6 4. d3 Bc5 5. O-O Nd4 6. Ba4
Nxf3+ 7. Qxf3 O-O 8. Qg3 d6 9. Bg5 c6 10. Bb3 Nh5 11. Qh4 Nf6
12. Nc3 h6 13. Bd2 a5 14. Kh1 Bd4 15. f4 Ng4 16. Qxd8 Rxd8
17. fxe5 Nxe5 18. a4 Be6 19. Bxe6 fxe6 20. Ne2 Bb6 21. Nf4 Re8
22. h3 Nd7 23. Rf3 Ne5 24. Rff1 Nd7 25. g4 d5 26. Rae1 e5
27. Nh5 dxe4 28. Rxe4 Rf8 29. Ree1 g6 30. Ng3 Bf2 31. Rxf2
Rxf2 32. Ne4 Rf7 33. Kg2 g5 34. Nd6 Rf6 35. Nxb7 Rb8 36. Nxa5
Rxb2 37. Rc1 Ra2 38. Nc4 Rxa4 39. Rb1 e4 40. Nb2 Ra2 41. dxe4
Nc5 42. e5 Re6 43. Kf3 Rxe5 44. Be3 Nd7 45. Nc4 Rb5 46. Rd1
Rd5 47. Rc1 Ra4 48. Nd2 Ne5+ 49. Ke2 Nc4 50. Nf1 Ra3 51. c3
Kh7 52. Bd4 c5 53. Be3 Kg6 54. Rc2 Ra1 55. Bc1 Rd7 56. Ng3 Ra6
57. Kf2 Rd3 58. Kg2 Re6 59. h4 gxh4 60. Nh5 Ne3+ 61. Bxe3
Rexe3 62. Nf4+ Kg5 63. Nxd3 Rxd3 64. c4 Rg3+ 65. Kh2 Rxg4
66. Kh3 Rf4 0-1','2011-09-03','PLAYER0001','PLAYER0003','0-
1','TIME000002','TOUR000002','ANALYSIS02');

INSERT INTO GAMES VALUES ('GAME000002','OPENING003','1. c4 e5 2. Nc3 Nf6
3. g3 Bb4 4. e4 O-O 5. Nge2 c6 6. Bg2 a6 7. O-O b5 8. d4 d6
9. a3 Bxc3 10. Nxc3 bxc4 11. dxe5 dxe5 12. Na4 Be6 13. Qxd8 Rxd8 14. Be3
Nbd7
15. f3 Rab8 16. Rac1 Rb3 17. Rfe1 Ne8 18. Bf1 Nd6 19. Rcd1 Nb5 20. Nc5
Rxb2 21.
Nxe6 fxe6 22. Bxc4 Nd4 23. Bxd4 exd4 24. Bxe6+ Kf8 25. Rxd4 Ke7 26. Rxd7+
Rxd7
27. Bxd7 Kxd7 28. Rd1+ Ke6 29. f4 c5 30. Rd5 Rc2 31. h4 c4 32. f5+ Kf6 33.
Rc5
h5 34. Kf1 Rc3 35. Kg2 Rxa3 36. Rxc4 Ke5 37. Rc7 Kxe4 38. Re7+ Kxf5 39.
Rxg7 Kf6
40. Rg5 a5 41. Rxh5 a4 42. Ra5 Ra1 43. Kf3 a3 44. Ra6+ Kg7 45. Kg2 Ra2+
46. Kh3
Ra1 47. h5 Kh7 48. g4 Kg7 49. Kh4 a2 50. Kg5 Kf7 51. h6 Rb1 52. Ra7+ Kg8
53.
Rxa2 Rb5+ 54. Kg6 Rb6+ 55. Kh5 1-0'
,'2018-11-28','PLAYER0001','PLAYER0002','1-
0','TIME000001','TOUR000001','ANALYSIS01');

INSERT INTO GAMES VALUES ('GAME000003','OPENING004','1. d4 Nf6 2. c4 g6 3.
Nc3 d5 4. cxd5 Nxd5 5. Bd2 Bg7 6. e4
Nxc3 7. Bxc3 c5 8. d5 Bxc3+ 9. bxc3 Qd6 10. Qd2 O-O 11. f4 e6

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12. Nf3 exd5 13. Bc4 Be6 14. O-O d4 15. f5 Bxc4 16. e5 Qd7
17. f6 1-0'
,'2020-05-07','PLAYER0003','PLAYER0004','1-
0','TIME000002','TOUR000004','ANALYSIS03');
INSERT INTO GAMES VALUES ('GAME000004','OPENING005','1. e4 e5 2. Nf3 Nc6
3. Bb5 Nf6 4. d3 Bc5 5. Bxc6 dxc6 6. Nbd2
Be6 7. O-O Nd7 8. Nb3 Bb6 9. Ng5 Bxb3 10. axb3 Qe7 11. Bd2
O-O-O 12. b4 Kb8 13. c4 Bd4 14. Nf3 Nf8 15. Qa4 a6 16. b5 cxb5
17. cxb5 Qd7 18. bxa6 Qxa4 19. Rxa4 Ne6 20. axb7 Nc5 21. Ra3
Bxb2 22. Ra2 Nxd3 23. Rb1 c5 1-0'
,'2016-04-18','PLAYER0005','PLAYER0001','1-
0','TIME000004','TOUR000003','ANALYSIS04');
INSERT INTO GAMES VALUES ('GAME000005','OPENING003','1. c4 Nf6 2. Nc3 e6
3. Nf3 d5 4. e3 a6 5. b3 Bd6 6. Bb2 O-O
7. g4 Nxg4 8. Rg1 f5 9. cxd5 e5 10. h3 Nf6 11. Ng5 Qe7 12. Qf3
Kh8 13. Ne6 Bxe6 14. dxe6 Qxe6 15. Qxb7 Nbd7 16. Bc4 Qe7
17. Qg2 Nb6 18. Be2 a5 19. Bb5 Rad8 20. Qg5 g6 21. Qh6 Ng8
22. Qg5 Nf6 23. Rd1 e4 24. Qh6 Rg8 25. Ne2 Be5 26. Bxe5 Qxe5
27. Nf4 g5 28. Rxg5 Rxg5 29. Qxg5 Rg8 30. Qh6 Rg7 31. Bc4 Nxc4
32. bxc4 Qb2 33. Ke2 a4 34. Ne6 Rf7 35. Nf4 Rg7 36. a3 Ne8
37. Qc6 1-0'
,'2017-12-09','PLAYER0004','PLAYER0003','1-
0','TIME000001','TOUR000005','ANALYSIS05');

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