

FCP Part 2 Project

Group 21(G21)



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**TTU-Data Science**

1. **Introduction**

From the given notes as per the FCP2 project document, the below notes are included as guide in creating the tables and to generate the tables as per the created table.

* Matches are often termed "fixtures" in european football.
* Assume times in the dataset are GMT (i.e., you don't need to account for times being in different time zones depending on where the game is played).
* In the dataset on the course MySQL server, date is formatted as yyyy-mm-dd (unlike the CSV dataset files).
* isHome in the team\_fixture entity specifies whether the teamID in that fixture is the home team. If not, then it can be assumed they are the away team for that fixture.
* teamID, fixtureID, refID, leagueID, and seasonID are SKs and should be designed into your database accordingly, whereas divisionID uses data provided in the dataset.
* I am making an assumption that seasons across leagues and divisions are the same (e.g., 2022/2023). In reality, seasons may have different start and end dates, etc., in which case some changes would occur in the model.

1. **Logical ER diagram**

The given logical ER diagram as seen below, the diagram shows only the entities and their cardinality and relationship which helps us to write and create the table code and data table generation.

**ISQS 6338 (D20 & D21) FCP 2023 - European Football Model**

A diagram of a team

Description automatically generated

1. **Project completion MySQL code:**

The written MySQL code consists of create data tables, temporary table creation and data generation code with all functionalities in joining of tables, inserting values without hardcoding and update function accordingly. And in each of the data table output was exported to this document from the MySQL database using the export function.

As this formal submission document ,moreover, we will attach the .sql file in our submission for you to rerun for your evaluation.

**-- Create Team table**

CREATE TABLE G21.Team (

teamID INT PRIMARY KEY AUTO\_INCREMENT,

teamName ENUM('homeTeam', 'awayTeam')

);

INSERT INTO G21.Team (teamID, teamName) VALUES (1, 'homeTeam');

INSERT INTO G21.Team (teamID, teamName) VALUES (2, 'awayTeam');

**-- Check the created Team**

select \* from G21.Team;

**-- Create League table**

CREATE TABLE G21.League1 (

leagueID INT PRIMARY KEY auto\_increment,

leagueName VARCHAR(255)

);

INSERT INTO G21.League1 (leagueName)

SELECT DISTINCT league AS leagueName

FROM fcp\_2023.results\_csv;

**-- Check the created League1**

select \* from G21.League1;

**-- Create Division table**

CREATE TABLE G21.Division (

divisionID VARCHAR(3) PRIMARY KEY,

divisionName VARCHAR(255),

leagueID INT,

FOREIGN KEY (leagueID) REFERENCES League(leagueID)

);

INSERT INTO G21.Division (divisionID,divisionName)

SELECT DISTINCT `div` AS divisionID ,league as divisionName

FROM fcp\_2023.results\_csv;

UPDATE G21.Division a

JOIN G21.League1 b ON a.divisionName = b.leagueName

SET a.leagueID = b.leagueID

where a.leagueID is NULL;

**-- Check the created Division**

select \* from G21.Division;

**-- Create Season table**

CREATE TABLE G21.Season (

seasonID INT PRIMARY KEY auto\_increment,

seasonName VARCHAR(255)

);

INSERT INTO G21.Season (seasonName)

SELECT DISTINCT season AS seasonName

FROM fcp\_2023.results\_csv;

**-- Check the created Season**

select \* from G21.Season;

**-- Create team\_season\_div table**

CREATE TABLE G21.team\_season\_div AS

SELECT

T.teamID,

S.seasonID,

D.divisionID

FROM

G21.Team T

CROSS JOIN

G21.Season S

CROSS JOIN

G21.Division D

order by T.teamID,S.seasonID,D.divisionID;

**-- Check the created team\_season\_div**

select \* from G21.team\_season\_div ;

**-- Step 1: Create a temporary table to store the team mapping data for home teams**

CREATE TEMPORARY TABLE G21.temp\_results\_csv AS

SELECT

\*,

CASE WHEN homeTeam IS NOT NULL THEN 1

ELSE NULL END AS teamID,

CASE WHEN awayTeam IS NOT NULL THEN 2

ELSE NULL END AS teamID1,

ROW\_NUMBER() OVER () AS fixtureID

FROM fcp\_2023.results\_csv;

**-- Create Referee table**

CREATE TABLE G21.Referee1 (

refID INT PRIMARY KEY auto\_increment ,

refName VARCHAR(255)

);

CREATE TEMPORARY TABLE G21.temp\_table AS

SELECT fixtureID as refID ,referee as refName

FROM G21.temp\_results\_csv;

INSERT ignore INTO G21.Referee1 (refID,refName)

SELECT refID ,refName

FROM G21.temp\_table;

UPDATE G21.Referee1 a

left JOIN G21.temp\_table b ON a.refID = b.refID

SET a.refID = b.refID

where a.refID is NULL and a.refName is NULL;

create table G21.Referee2 as

select b.refID,b.refName

from G21.Referee1 a

JOIN G21.temp\_table b

on a.refID=b.refID;

**-- Drop the temporary table .**

DROP TEMPORARY TABLE IF EXISTS G21.temp\_table;

**-- Check the Referee1**

select \* from G21.Referee1;

**-- Create Fixture table**

CREATE TABLE G21.Fixture1 (

fixtureID INT PRIMARY KEY auto\_increment,

seasonID INT ,

refID INT,

date DATE,

time TIME,

htr VARCHAR(255),

ftr VARCHAR(255),

FOREIGN KEY (seasonID) REFERENCES Season(seasonID),

FOREIGN KEY (refID) REFERENCES Referee(refID)

);

**-- Step 1: Create a temporary table to generate fixtureID and seasonID combinations**

CREATE TEMPORARY TABLE G21.TempFixtureSeason AS

SELECT

F.\*,

S.seasonID

FROM

G21.temp\_results\_csv F

JOIN

G21.Season S on

F.season=S.seasonName;

**-- Step 2: Create a temporary table to generate refID**

CREATE TEMPORARY TABLE G21.TempFixtureSeason1 AS

SELECT

F.fixtureID,

F.seasonID,

F.referee,

F.date ,

F.time ,

F.htr ,

F.ftr ,

S.refName,S.refID

FROM

G21.TempFixtureSeason F

LEFT JOIN

G21.Referee1 S

on S.refID=F.fixtureID ;

INSERT IGNORE INTO G21.Fixture1 (fixtureID, seasonID,refID,date, time, htr, ftr)

SELECT

T.fixtureID,

T.seasonID,

T.refID,

T.date ,

T.time ,

T.htr ,

T.ftr

FROM

G21.TempFixtureSeason1 T

order by T.fixtureID ,T.refID,T.seasonID;

**-- Drop the temporary table .**

DROP TEMPORARY TABLE IF EXISTS G21.TempFixtureSeason1;

DROP TEMPORARY TABLE IF EXISTS G21.TempFixtureSeason;

**-- Check the Fixure1**

select \* from G21.Fixture1 ;

**-- Create team\_fixture table**

CREATE TABLE G21.team\_fixture (

teamID INT ,

fixtureID INT,

isHome ENUM('Yes', 'No'),

shots INT,

shotsTarget INT,

corners INT,

fouls INT,

yellowCards INT,

redCards INT,

goalsHT INT,

goalsFT INT,

PRIMARY KEY (teamID, fixtureID),

FOREIGN KEY (teamID) REFERENCES G21.Team(teamID),

FOREIGN KEY (fixtureID) REFERENCES G21.Fixture(fixtureID)

);

CREATE TEMPORARY TABLE G21.temp\_team\_mapping AS

SELECT

CASE WHEN tf.teamID IS NULL THEN 1 END AS teamID,

CASE WHEN tf.fixtureID IS NULL THEN trc.fixtureID END AS fixtureID

FROM G21.team\_fixture AS tf

RIGHT JOIN G21.temp\_results\_csv AS trc ON trc.teamID = 1;

INSERT INTO G21.team\_fixture (

teamID,

fixtureID,

isHome,

shots,

shotsTarget,

corners,

fouls,

yellowCards,

redCards,

goalsHT,

goalsFT

)

SELECT

T.teamID,

T.fixtureID,

'Yes' AS isHome,

T.HS AS shots,

T.HST AS shotsTarget,

T.HC AS corners,

T.HF AS fouls,

T.HY AS yellowCards,

T.HR AS redCards,

T.HTHG AS goalsHT,

T.FTHG AS goalsFT

FROM

G21.temp\_results\_csv T

WHERE

T.teamID = 1

ON DUPLICATE KEY UPDATE

isHome = 'Yes',

shots = VALUES(shots),

shotsTarget = VALUES(shotsTarget),

corners = VALUES(corners),

fouls = VALUES(fouls),

yellowCards = VALUES(yellowCards),

redCards = VALUES(redCards),

goalsHT = VALUES(goalsHT),

goalsFT = VALUES(goalsFT);

ALTER TABLE G21.team\_fixture ADD CONSTRAINT unique\_team\_fixture UNIQUE (teamID, fixtureID);

**-- Drop optional in between tables here like temp\_results\_csv**

DROP TEMPORARY TABLE IF EXISTS G21.temp\_results\_csv;

**-- Check for team\_fixture**

select \* from G21.team\_fixture;

1. **Generated data tables**
   1. **Team data table**

|  |  |
| --- | --- |
| **teamID** | **teamName** |
| **1** | homeTeam |
| **2** | awayTeam |

* 1. **Leagues data table**

|  |  |
| --- | --- |
| **leagueID** | **leagueName** |
| **1** | German |
| **2** | English |
| **3** | Spanish |

* 1. **Division data table**

|  |  |  |
| --- | --- | --- |
| **divisionID** | **divisionName** | **leagueID** |
| **D1** | German | 1 |
| **D2** | German | 1 |
| **E0** | English | 2 |
| **E1** | English | 2 |
| **SP1** | Spanish | 3 |
| **SP2** | Spanish | 3 |

* 1. **Season data table**

|  |  |
| --- | --- |
| **seasonID** | **seasonName** |
| **1** | 2022/2023 |
| **2** | 2021/2022 |
| **3** | 2020/2021 |

* 1. **team\_season\_div data table**

|  |  |  |
| --- | --- | --- |
| **teamID** | **seasonID** | **divisionID** |
| **1** | 1 | D1 |
| **1** | 1 | D2 |
| **1** | 1 | E0 |
| **1** | 1 | E1 |
| **1** | 1 | SP1 |
| **1** | 1 | SP2 |
| **1** | 2 | D1 |
| **1** | 2 | D2 |
| **1** | 2 | E0 |
| **1** | 2 | E1 |
| **1** | 2 | SP1 |
| **1** | 2 | SP2 |
| **1** | 3 | D1 |
| **1** | 3 | D2 |
| **1** | 3 | E0 |
| **1** | 3 | E1 |
| **1** | 3 | SP1 |
| **1** | 3 | SP2 |
| **2** | 1 | D1 |
| **2** | 1 | D2 |
| **2** | 1 | E0 |
| **2** | 1 | E1 |
| **2** | 1 | SP1 |
| **2** | 1 | SP2 |
| **2** | 2 | D1 |
| **2** | 2 | D2 |
| **2** | 2 | E0 |
| **2** | 2 | E1 |
| **2** | 2 | SP1 |
| **2** | 2 | SP2 |
| **2** | 3 | D1 |
| **2** | 3 | D2 |
| **2** | 3 | E0 |
| **2** | 3 | E1 |
| **2** | 3 | SP1 |
| **2** | 3 | SP2 |

* 1. **Referee data table**

|  |  |
| --- | --- |
| **refID** | **refName** |
| **1** |  |
| **2** |  |
| **3** |  |
| **4** |  |
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| **35** |  |
| **36** |  |
| **37** |  |
| **38** |  |
| **39** | P Bankes |
| **40** | P Tierney |
| **41** | M Oliver |
| **42** | M Oliver |
| **43** | A Taylor |
| **44** | G Scott |
| **45** | M Oliver |
| **46** | A Taylor |
| **47** | J Moss |
| **48** | M Oliver |
| **49** | K Friend |
| **50** | M Oliver |
| **51** | P Bankes |
| **52** | C Pawson |
| **53** | R Jones |
| **54** | C Kavanagh |
| **55** | P Bankes |
| **56** | M Atkinson |
| **57** | C Pawson |
| **58** | A Marriner |
| **59** | P Tierney |
| **60** | D Webb |
| **61** | D Webb |
| **62** | D Bond |
| **63** | D Webb |
| **64** | J Gillett |
| **65** | T Robinson |
| **66** | J Linington |
| **67** | D Webb |
| **68** | M Donohue |
| **69** | J Busby |
| **70** | A Davies |
| **71** | T Robinson |
| **72** | T Robinson |
| **73** | D Whitestone |
| **74** | J Linington |
| **75** | J Simpson |
| **76** | G Eltringham |
| **77** | T Robinson |
| **78** | G Eltringham |
| **79** | S Hooper |
| **80** | J Moss |
| **81** | J Brooks |
| **82** | D Whitestone |
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| **125** |  |
| **126** |  |

* 1. **Fixture data table**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **fixtureID** | **seasonID** | **refID** | **date** | **time** | **htr** | **ftr** |
| **1** | 1 | 1 | 2023-01-25 | 19:30:00 | D | A |
| **2** | 1 | 2 | 2023-03-31 | 19:30:00 | D | D |
| **3** | 1 | 3 | 2023-02-18 | 14:30:00 | A | A |
| **4** | 1 | 4 | 2023-04-22 | 14:30:00 | A | A |
| **5** | 1 | 5 | 2022-08-21 | 16:30:00 | A | A |
| **6** | 1 | 6 | 2022-11-12 | 14:30:00 | H | H |
| **7** | 1 | 7 | 2023-03-04 | 14:30:00 | H | H |
| **8** | 1 | 8 | 2022-09-17 | 14:30:00 | D | H |
| **9** | 2 | 9 | 2021-08-21 | 14:30:00 | A | D |
| **10** | 2 | 10 | 2022-01-15 | 17:30:00 | D | A |
| **11** | 2 | 11 | 2022-04-17 | 16:30:00 | D | D |
| **12** | 2 | 12 | 2022-04-06 | 17:30:00 | H | H |
| **13** | 2 | 13 | 2021-11-20 | 17:30:00 | H | H |
| **14** | 2 | 14 | 2022-05-14 | 14:30:00 | A | D |
| **15** | 3 | 15 | 2021-04-03 | 14:30:00 | H | H |
| **16** | 3 | 16 | 2020-10-04 | 14:30:00 | D | D |
| **17** | 3 | 17 | 2021-05-08 | 17:30:00 | H | H |
| **18** | 3 | 18 | 2021-04-21 | 19:30:00 | A | H |
| **19** | 3 | 19 | 2021-04-21 | 19:30:00 | A | A |
| **20** | 3 | 20 | 2021-02-06 | 14:30:00 | A | A |
| **21** | 1 | 21 | 2023-04-23 | 12:30:00 | D | D |
| **22** | 1 | 22 | 2022-08-07 | 12:30:00 | D | A |
| **23** | 1 | 23 | 2022-08-27 | 12:00:00 | H | D |
| **24** | 1 | 24 | 2023-04-29 | 12:00:00 | D | H |
| **25** | 1 | 25 | 2023-03-12 | 12:30:00 | D | A |
| **26** | 1 | 26 | 2022-10-28 | 17:30:00 | H | H |
| **32** | 2 | 32 | 2021-11-07 | 12:30:00 | A | A |
| **33** | 3 | 33 | 2021-01-29 | 17:30:00 | H | H |
| **34** | 3 | 34 | 2021-04-18 | 12:30:00 | H | H |
| **35** | 3 | 35 | 2021-02-12 | 17:30:00 | D | D |
| **36** | 3 | 36 | 2021-04-24 | 12:00:00 | H | H |
| **37** | 3 | 37 | 2021-04-11 | 12:30:00 | A | D |
| **38** | 3 | 38 | 2021-03-05 | 17:30:00 | D | A |
| **39** | 1 | 39 | 2023-01-01 | 16:30:00 | A | D |
| **40** | 1 | 40 | 2022-12-26 | 17:30:00 | A | A |
| **41** | 1 | 41 | 2023-01-21 | 12:30:00 | D | D |
| **42** | 1 | 42 | 2022-11-06 | 12:00:00 | D | A |
| **43** | 1 | 43 | 2022-10-01 | 12:30:00 | D | H |
| **44** | 1 | 44 | 2022-10-15 | 15:00:00 | A | D |
| **45** | 2 | 45 | 2022-05-22 | 16:00:00 | A | H |
| **46** | 2 | 46 | 2021-08-21 | 17:30:00 | H | H |
| **47** | 2 | 47 | 2021-08-14 | 15:00:00 | H | H |
| **48** | 2 | 48 | 2022-03-06 | 16:30:00 | H | H |
| **49** | 2 | 49 | 2022-01-23 | 14:00:00 | A | A |
| **50** | 2 | 50 | 2021-09-11 | 15:00:00 | D | H |
| **51** | 2 | 51 | 2022-01-22 | 15:00:00 | D | A |
| **52** | 3 | 52 | 2021-03-15 | 20:00:00 | A | A |
| **53** | 3 | 53 | 2021-03-03 | 18:00:00 | H | H |
| **54** | 3 | 54 | 2021-01-26 | 20:15:00 | A | A |
| **55** | 3 | 55 | 2021-01-27 | 20:15:00 | A | A |
| **56** | 3 | 56 | 2021-02-03 | 18:00:00 | A | A |
| **57** | 3 | 57 | 2020-09-14 | 20:15:00 | A | A |
| **63** | 1 | 63 | 2023-02-15 | 20:00:00 | D | D |
| **64** | 1 | 64 | 2023-01-20 | 20:00:00 | A | H |
| **65** | 1 | 65 | 2022-10-22 | 15:00:00 | H | A |
| **66** | 1 | 66 | 2023-02-25 | 15:00:00 | H | H |
| **67** | 1 | 67 | 2022-10-19 | 20:00:00 | H | H |
| **68** | 2 | 68 | 2022-01-15 | 12:30:00 | A | A |
| **69** | 2 | 69 | 2021-12-18 | 15:00:00 | A | H |
| **70** | 2 | 70 | 2021-09-18 | 15:00:00 | D | D |
| **71** | 2 | 71 | 2022-01-15 | 15:00:00 | H | H |
| **72** | 2 | 72 | 2022-03-12 | 12:30:00 | H | D |
| **73** | 2 | 73 | 2022-03-12 | 15:00:00 | D | D |
| **74** | 3 | 74 | 2021-02-20 | 15:00:00 | D | A |
| **75** | 3 | 75 | 2021-02-16 | 19:45:00 | H | H |
| **76** | 3 | 76 | 2021-03-12 | 19:45:00 | A | A |
| **77** | 3 | 77 | 2020-12-19 | 12:30:00 | H | H |
| **78** | 3 | 78 | 2021-01-30 | 15:00:00 | D | D |
| **79** | 3 | 79 | 2020-10-21 | 19:45:00 | A | D |
| **80** | 3 | 80 | 2021-03-06 | 12:30:00 | H | H |
| **81** | 3 | 81 | 2021-04-25 | 12:00:00 | H | D |
| **82** | 3 | 82 | 2021-04-24 | 15:00:00 | H | H |
| **83** | 1 | 83 | 2022-09-11 | 13:00:00 | D | H |
| **84** | 1 | 84 | 2023-03-12 | 17:30:00 | A | D |
| **85** | 1 | 85 | 2023-03-19 | 20:00:00 | D | H |
| **86** | 1 | 86 | 2023-05-28 | 18:00:00 | D | D |
| **87** | 1 | 87 | 2022-09-10 | 15:15:00 | A | A |
| **88** | 1 | 88 | 2023-04-24 | 18:30:00 | A | H |
| **94** | 2 | 94 | 2022-04-02 | 20:00:00 | H | H |
| **95** | 2 | 95 | 2022-02-20 | 13:00:00 | A | D |
| **96** | 2 | 96 | 2022-02-27 | 20:00:00 | H | H |
| **97** | 2 | 97 | 2021-11-27 | 20:00:00 | D | A |
| **98** | 3 | 98 | 2021-01-24 | 13:00:00 | H | H |
| **99** | 3 | 99 | 2021-02-01 | 20:00:00 | D | H |
| **100** | 3 | 100 | 2020-09-27 | 15:00:00 | H | H |
| **101** | 3 | 101 | 2021-04-21 | 19:00:00 | D | D |
| **102** | 3 | 102 | 2021-05-07 | 20:00:00 | D | H |
| **103** | 3 | 103 | 2020-11-08 | 15:15:00 | H | H |
| **104** | 1 | 104 | 2023-03-05 | 17:30:00 | D | A |
| **105** | 1 | 105 | 2022-08-21 | 16:30:00 | D | H |
| **106** | 1 | 106 | 2023-05-28 | 15:15:00 | A | A |
| **107** | 1 | 107 | 2022-11-20 | 18:00:00 | D | D |
| **108** | 1 | 108 | 2023-03-11 | 17:30:00 | D | D |
| **109** | 1 | 109 | 2023-05-20 | 17:30:00 | D | H |
| **110** | 1 | 110 | 2022-11-03 | 20:00:00 | D | D |
| **111** | 1 | 111 | 2023-04-16 | 13:00:00 | H | H |
| **112** | 2 | 112 | 2022-05-01 | 17:15:00 | H | H |
| **113** | 2 | 113 | 2022-03-27 | 20:00:00 | A | A |
| **114** | 2 | 114 | 2022-04-30 | 19:30:00 | A | A |
| **115** | 2 | 115 | 2021-11-22 | 20:00:00 | A | A |
| **116** | 2 | 116 | 2022-05-14 | 20:00:00 | A | A |
| **117** | 2 | 117 | 2021-10-17 | 15:00:00 | A | A |
| **118** | 3 | 118 | 2021-05-30 | 20:00:00 | A | A |
| **119** | 3 | 119 | 2021-05-30 | 20:00:00 | D | D |
| **120** | 3 | 120 | 2021-02-21 | 17:15:00 | H | H |
| **121** | 3 | 121 | 2021-02-13 | 19:30:00 | D | H |
| **122** | 3 | 122 | 2020-09-27 | 17:15:00 | H | H |
| **123** | 3 | 123 | 2021-05-19 | 20:30:00 | A | A |
| **124** | 3 | 124 | 2020-09-27 | 17:15:00 | D | A |
| **125** | 3 | 125 | 2020-12-13 | 15:00:00 | D | H |
| **126** | 3 | 126 | 2020-12-21 | 20:30:00 | H | H |

* 1. **team\_fixture data table**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **teamID** | **fixtureID** | **isHome** | **shots** | **shotsTarget** | **corners** | **fouls** | **yellowCards** | **redCards** | **goalsHT** | **goalsFT** |
| **1** | 1 | Yes | 8 | 3 | 5 | 11 | 0 | 0 | 1 | 1 |
| **1** | 2 | Yes | 18 | 7 | 15 | 14 | 3 | 0 | 1 | 1 |
| **1** | 3 | Yes | 7 | 2 | 2 | 16 | 1 | 0 | 0 | 0 |
| **1** | 4 | Yes | 23 | 6 | 10 | 11 | 3 | 0 | 0 | 1 |
| **1** | 5 | Yes | 13 | 7 | 5 | 10 | 1 | 0 | 0 | 0 |
| **1** | 6 | Yes | 17 | 8 | 10 | 15 | 3 | 0 | 1 | 2 |
| **1** | 7 | Yes | 16 | 6 | 11 | 12 | 1 | 0 | 1 | 1 |
| **1** | 8 | Yes | 19 | 7 | 11 | 12 | 3 | 0 | 0 | 1 |
| **1** | 9 | Yes | 20 | 5 | 5 | 12 | 4 | 0 | 0 | 1 |
| **1** | 10 | Yes | 16 | 6 | 5 | 8 | 2 | 0 | 0 | 1 |
| **1** | 11 | Yes | 16 | 3 | 10 | 19 | 3 | 0 | 0 | 0 |
| **1** | 12 | Yes | 14 | 4 | 5 | 16 | 3 | 0 | 1 | 2 |
| **1** | 13 | Yes | 16 | 5 | 7 | 17 | 1 | 0 | 2 | 2 |
| **1** | 14 | Yes | 10 | 2 | 2 | 5 | 1 | 0 | 1 | 2 |
| **1** | 15 | Yes | 7 | 2 | 2 | 7 | 1 | 0 | 2 | 2 |
| **1** | 16 | Yes | 17 | 6 | 12 | 7 | 0 | 0 | 0 | 0 |
| **1** | 17 | Yes | 22 | 7 | 5 | 3 | 0 | 1 | 4 | 6 |
| **1** | 18 | Yes | 19 | 6 | 5 | 9 | 3 | 0 | 0 | 3 |
| **1** | 19 | Yes | 11 | 4 | 4 | 12 | 3 | 0 | 0 | 1 |
| **1** | 20 | Yes | 3 | 1 | 1 | 14 | 2 | 0 | 0 | 0 |
| **1** | 21 | Yes | 10 | 4 | 4 | 11 | 0 | 1 | 0 | 0 |
| **1** | 22 | Yes | 9 | 3 | 3 | 10 | 4 | 1 | 1 | 1 |
| **1** | 23 | Yes | 16 | 6 | 12 | 8 | 2 | 0 | 1 | 2 |
| **1** | 24 | Yes | 11 | 4 | 2 | 11 | 2 | 0 | 1 | 3 |
| **1** | 25 | Yes | 15 | 3 | 9 | 8 | 2 | 0 | 1 | 1 |
| **1** | 26 | Yes | 17 | 7 | 6 | 12 | 2 | 0 | 1 | 1 |
| **1** | 27 | Yes | 15 | 4 | 3 | 9 | 2 | 0 | 1 | 3 |
| **1** | 28 | Yes | 12 | 5 | 5 | 14 | 4 | 1 | 0 | 2 |
| **1** | 29 | Yes | 15 | 8 | 6 | 14 | 2 | 0 | 2 | 4 |
| **1** | 30 | Yes | 11 | 3 | 4 | 15 | 4 | 0 | 0 | 1 |
| **1** | 31 | Yes | 13 | 5 | 7 | 11 | 2 | 0 | 1 | 2 |
| **1** | 32 | Yes | 19 | 8 | 9 | 7 | 2 | 0 | 1 | 2 |
| **1** | 33 | Yes | 12 | 6 | 2 | 13 | 3 | 0 | 2 | 3 |
| **1** | 34 | Yes | 11 | 7 | 8 | 16 | 1 | 0 | 2 | 4 |
| **1** | 35 | Yes | 11 | 2 | 6 | 13 | 2 | 0 | 0 | 0 |
| **1** | 36 | Yes | 17 | 7 | 3 | 8 | 0 | 0 | 2 | 3 |
| **1** | 37 | Yes | 14 | 4 | 3 | 8 | 3 | 0 | 0 | 1 |
| **1** | 38 | Yes | 17 | 2 | 7 | 10 | 3 | 0 | 1 | 2 |
| **1** | 39 | Yes | 12 | 5 | 1 | 16 | 2 | 0 | 0 | 1 |
| **1** | 40 | Yes | 12 | 6 | 0 | 7 | 0 | 0 | 0 | 1 |
| **1** | 41 | Yes | 15 | 3 | 5 | 16 | 3 | 0 | 0 | 0 |
| **1** | 42 | Yes | 5 | 1 | 4 | 20 | 5 | 0 | 0 | 0 |
| **1** | 43 | Yes | 22 | 9 | 5 | 10 | 2 | 0 | 1 | 3 |
| **1** | 44 | Yes | 19 | 4 | 5 | 9 | 2 | 0 | 1 | 2 |
| **1** | 45 | Yes | 24 | 5 | 13 | 5 | 0 | 0 | 0 | 3 |
| **1** | 46 | Yes | 13 | 3 | 7 | 11 | 4 | 0 | 2 | 2 |
| **1** | 47 | Yes | 13 | 6 | 5 | 15 | 0 | 0 | 2 | 3 |
| **1** | 48 | Yes | 24 | 10 | 9 | 10 | 0 | 0 | 2 | 4 |
| **1** | 49 | Yes | 8 | 5 | 2 | 12 | 4 | 0 | 0 | 1 |
| **1** | 50 | Yes | 30 | 7 | 8 | 9 | 1 | 0 | 0 | 1 |
| **1** | 51 | Yes | 11 | 1 | 6 | 6 | 2 | 0 | 0 | 1 |
| **1** | 52 | Yes | 10 | 5 | 3 | 17 | 2 | 0 | 0 | 0 |
| **1** | 53 | Yes | 9 | 2 | 2 | 13 | 1 | 1 | 1 | 1 |
| **1** | 54 | Yes | 4 | 1 | 3 | 8 | 2 | 0 | 0 | 0 |
| **1** | 55 | Yes | 16 | 4 | 7 | 10 | 1 | 0 | 0 | 1 |
| **1** | 56 | Yes | 2 | 0 | 1 | 8 | 2 | 0 | 0 | 0 |
| **1** | 57 | Yes | 13 | 3 | 4 | 8 | 1 | 0 | 0 | 1 |
| **1** | 58 | Yes | 10 | 6 | 2 | 5 | 0 | 0 | 0 | 1 |
| **1** | 59 | Yes | 17 | 3 | 7 | 15 | 2 | 0 | 0 | 0 |
| **1** | 60 | Yes | 11 | 2 | 3 | 10 | 1 | 0 | 0 | 1 |
| **1** | 61 | Yes | 14 | 1 | 8 | 7 | 0 | 0 | 0 | 0 |
| **1** | 62 | Yes | 13 | 6 | 7 | 5 | 3 | 0 | 1 | 2 |
| **1** | 63 | Yes | 12 | 4 | 12 | 10 | 2 | 0 | 0 | 1 |
| **1** | 64 | Yes | 17 | 2 | 16 | 7 | 1 | 0 | 0 | 2 |
| **1** | 65 | Yes | 10 | 5 | 2 | 9 | 1 | 0 | 2 | 2 |
| **1** | 66 | Yes | 13 | 4 | 3 | 12 | 1 | 0 | 2 | 2 |
| **1** | 67 | Yes | 12 | 4 | 2 | 12 | 0 | 0 | 3 | 3 |
| **1** | 68 | Yes | 11 | 2 | 7 | 10 | 4 | 0 | 0 | 0 |
| **1** | 69 | Yes | 9 | 3 | 5 | 7 | 2 | 0 | 0 | 2 |
| **1** | 70 | Yes | 8 | 2 | 3 | 10 | 1 | 0 | 1 | 1 |
| **1** | 71 | Yes | 18 | 8 | 6 | 8 | 0 | 0 | 5 | 6 |
| **1** | 72 | Yes | 8 | 3 | 4 | 15 | 4 | 0 | 1 | 1 |
| **1** | 73 | Yes | 6 | 3 | 3 | 18 | 1 | 0 | 1 | 2 |
| **1** | 74 | Yes | 1 | 1 | 0 | 8 | 1 | 0 | 0 | 0 |
| **1** | 75 | Yes | 11 | 5 | 9 | 14 | 1 | 1 | 2 | 2 |
| **1** | 76 | Yes | 10 | 4 | 2 | 19 | 4 | 0 | 0 | 0 |
| **1** | 77 | Yes | 16 | 5 | 6 | 14 | 0 | 0 | 1 | 2 |
| **1** | 78 | Yes | 13 | 3 | 9 | 19 | 3 | 0 | 1 | 1 |
| **1** | 79 | Yes | 13 | 3 | 6 | 18 | 2 | 0 | 0 | 1 |
| **1** | 80 | Yes | 12 | 4 | 7 | 16 | 2 | 0 | 1 | 1 |
| **1** | 81 | Yes | 14 | 4 | 7 | 13 | 1 | 0 | 1 | 2 |
| **1** | 82 | Yes | 13 | 4 | 5 | 9 | 0 | 0 | 1 | 1 |
| **1** | 83 | Yes | 22 | 7 | 4 | 7 | 3 | 0 | 1 | 4 |
| **1** | 84 | Yes | 15 | 4 | 2 | 8 | 3 | 0 | 0 | 1 |
| **1** | 85 | Yes | 17 | 7 | 8 | 12 | 4 | 0 | 1 | 2 |
| **1** | 86 | Yes | 19 | 4 | 10 | 12 | 0 | 0 | 1 | 2 |
| **1** | 87 | Yes | 19 | 5 | 9 | 11 | 3 | 0 | 1 | 2 |
| **1** | 88 | Yes | 18 | 5 | 6 | 16 | 0 | 0 | 0 | 2 |
| **1** | 89 | Yes | 16 | 7 | 2 | 14 | 3 | 0 | 1 | 2 |
| **1** | 90 | Yes | 6 | 2 | 4 | 12 | 0 | 0 | 0 | 0 |
| **1** | 91 | Yes | 18 | 8 | 6 | 13 | 0 | 0 | 1 | 2 |
| **1** | 92 | Yes | 11 | 5 | 4 | 14 | 2 | 0 | 1 | 2 |
| **1** | 93 | Yes | 8 | 3 | 2 | 11 | 4 | 0 | 0 | 0 |
| **1** | 94 | Yes | 14 | 8 | 8 | 10 | 1 | 0 | 1 | 4 |
| **1** | 95 | Yes | 11 | 4 | 3 | 14 | 4 | 0 | 0 | 1 |
| **1** | 96 | Yes | 17 | 7 | 5 | 8 | 2 | 0 | 1 | 4 |
| **1** | 97 | Yes | 14 | 2 | 4 | 19 | 2 | 0 | 0 | 1 |
| **1** | 98 | Yes | 7 | 4 | 1 | 15 | 5 | 1 | 2 | 3 |
| **1** | 99 | Yes | 8 | 4 | 3 | 12 | 1 | 0 | 0 | 1 |
| **1** | 100 | Yes | 17 | 10 | 1 | 16 | 3 | 0 | 1 | 6 |
| **1** | 101 | Yes | 6 | 2 | 5 | 10 | 3 | 1 | 0 | 0 |
| **1** | 102 | Yes | 16 | 3 | 7 | 8 | 1 | 0 | 0 | 2 |
| **1** | 103 | Yes | 22 | 9 | 15 | 8 | 2 | 1 | 2 | 2 |
| **1** | 104 | Yes | 20 | 3 | 5 | 14 | 1 | 1 | 0 | 0 |
| **1** | 105 | Yes | 11 | 5 | 4 | 16 | 5 | 0 | 0 | 1 |
| **1** | 106 | Yes | 20 | 4 | 4 | 12 | 1 | 0 | 0 | 1 |
| **1** | 107 | Yes | 11 | 0 | 4 | 10 | 0 | 0 | 0 | 0 |
| **1** | 108 | Yes | 18 | 6 | 6 | 13 | 3 | 0 | 0 | 0 |
| **1** | 109 | Yes | 15 | 4 | 6 | 23 | 3 | 0 | 0 | 2 |
| **1** | 110 | Yes | 16 | 3 | 8 | 14 | 1 | 0 | 0 | 0 |
| **1** | 111 | Yes | 12 | 8 | 3 | 5 | 1 | 0 | 1 | 1 |
| **1** | 112 | Yes | 14 | 5 | 2 | 9 | 4 | 0 | 3 | 4 |
| **1** | 113 | Yes | 15 | 4 | 5 | 13 | 2 | 0 | 0 | 0 |
| **1** | 114 | Yes | 13 | 7 | 3 | 7 | 2 | 0 | 0 | 0 |
| **1** | 115 | Yes | 13 | 3 | 1 | 18 | 3 | 0 | 0 | 0 |
| **1** | 116 | Yes | 19 | 5 | 7 | 13 | 3 | 0 | 1 | 2 |
| **1** | 117 | Yes | 12 | 4 | 3 | 17 | 3 | 0 | 0 | 0 |
| **1** | 118 | Yes | 23 | 6 | 12 | 10 | 1 | 0 | 0 | 0 |
| **1** | 119 | Yes | 13 | 5 | 3 | 6 | 0 | 0 | 1 | 2 |
| **1** | 120 | Yes | 5 | 2 | 3 | 15 | 3 | 0 | 2 | 2 |
| **1** | 121 | Yes | 18 | 7 | 4 | 14 | 1 | 0 | 0 | 1 |
| **1** | 122 | Yes | 7 | 4 | 2 | 23 | 1 | 0 | 3 | 3 |
| **1** | 123 | Yes | 11 | 3 | 2 | 23 | 5 | 0 | 0 | 0 |
| **1** | 124 | Yes | 7 | 2 | 7 | 17 | 2 | 0 | 0 | 0 |
| **1** | 125 | Yes | 9 | 6 | 3 | 18 | 7 | 0 | 1 | 3 |
| **1** | 126 | Yes | 9 | 5 | 4 | 20 | 2 | 1 | 2 | 2 |