```sql
---[Fifa21Rawdata] Data table Summary

Select *
From [fifa21-Rawdata]

---                              DATA TRANSFORMATION

---The Player Name (Modified the playerUrl column to have a Players fullname
   column).

UPDATE [fifa21-Rawdata]
SET playerUrl =SUBSTRING(playerUrl, 33, 31);
--Trim and Replace the column Properly
UPDATE [fifa21-Rawdata]
SET playerUrl = TRIM(REPLACE
                    (Replace
                    (REPLACE
                    (REPLACE
                    (REPLACE(playerUrl, '210006', ''), '21000', ''),'2100', ''),
                     '/', ''),'-', ' '));

--For an appealing apperance, changed the Letter Case.

UPDATE [fifa21-Rawdata]
SET playerUrl = UPPER(playerUrl)

-----The Contract column (Changing the delimeter from(~) to(-)

UPDATE [fifa21-Rawdata]
SET Contract = REPLACE(Contract, '~', '')

----Modified the Contract column dates written in text with "on loan"

UPDATE [fifa21-Rawdata]
SET Contract = 'On loan'
WHERE Contract LIKE '%On Loan%';

----Using Contract column to create three columns(Start_year, End_year, and
   Loan_status)

ALTER TABLE [fifa21-Rawdata]
ADD Start_year VARCHAR(20),
End_year VARCHAR(20) ;

UPDATE [fifa21-Rawdata]
SET Start_year = CASE
WHEN Contract LIKE '%loan%' THEN 'On loan'
WHEN Contract LIKE '%Free%' THEN 'Free'
```

```sql
 ELSE CAST(YEAR(CAST (LEFT(Contract, 4) + '-01-01' AS DATE)) AS VARCHAR(20 ))
    END,
       End_year = CASE
WHEN Contract LIKE '%loan%' THEN 'On loan'
WHEN Contract LIKE '%Free%' THEN 'Free'
 ELSE CAST (YEAR(CAST(RIGHT(Contract, 4) + '-01-01' AS DATE)) AS VARCHAR(20))
    END
WHERE Contract LIKE '%-%' OR Contract LIKE '%Loan%' OR Contract LIKE '%Free%';

------Using Contract End_year to create Contract_Status

ALTER TABLE [fifa21-Rawdata]
ADD Contract_Status VARCHAR(20)

----Filling the Contract_Status column

UPDATE [fifa21-Rawdata]
SET Contract_Status = CASE
    WHEN End_Year LIKE '%2020%' THEN 'Contract Ended'
    WHEN End_Year LIKE '%2021%' THEN 'Contract Ended'
    WHEN End_Year LIKE '%2022%' THEN 'Contract Ended'
    WHEN End_Year LIKE '%free%' THEN 'Free'
    WHEN End_Year LIKE '%loan%' THEN 'On loan'
        ELSE 'Active Contract'
  END

----Creating a Loan_status column usinf contract column (the Loan_end_date column
  is filled with so many null values,hence the creation of Loan status to know
  player on loan and not on loan)

ALTER TABLE [fifa21-Rawdata]
ADD Loan_status VARCHAR(50)

----filling the Loan_status column

UPDATE [fifa21-Rawdata]
SET Loan_status = CASE
WHEN Contract LIKE '%free%' THEN 'Free'
WHEN Contract LIKE '%loan%' THEN 'On loan'
ELSE 'Not on loan'
  END

------Value Column ---[Converting the Values in height column to (CM). This is to
  create a balance measurement in the column between inches values and CM values]

UPDATE [fifa21-Rawdata]
SET Height = RTRIM(
   CAST(
     CASE
```

```sql
        WHEN Height LIKE '%''%" ' THEN
          TRY_CONVERT (DECIMAL (10, 2), SUBSTRING(Height, 1, CHARINDEX('''',
            Height)-1))*30.48 +
            TRY_CONVERT (DECIMAL (10, 2), SUBSTRING(Height, CHARINDEX('''', height)+1,
            LEN(Height)-CHARINDEX('''', Height)-1))*2.54
        WHEN Height LIKE '%"' THEN TRY_CONVERT(DECIMAL(10,2), SUBSTRING(height, 1,
          LEN(height) - 2)) * 2.54
        ELSE TRY_CONVERT(DECIMAL (10, 2), SUBSTRING(height, 1, LEN(height) - 2))
      END AS INT));

---------------[Converting the Values in the weight column to (Kg). This is to
  have a balance measurement of weight between some Lbs values and Kg values].

UPDATE [fifa21-Rawdata]
SET Weight = CASE
    WHEN Weight LIKE '%lbs' THEN CEILING(TRY_CONVERT(DECIMAL(10, 2), SUBSTRING
      (Weight, 1,
    LEN(Weight) - 3)) * 0.45359237)
    ELSE CEILING(TRY_CONVERT(DECIMAL(10, 2), SUBSTRING(weight, 1, LEN(Weight) -
      2)))
      End;

---Value column (Removing of the 'M','€', and 'K' characters. Converting the
  values to Proper Money figure)

UPDATE [fifa21-Rawdata]
SET value = CASE
WHEN value LIKE '€%' AND value LIKE '%M' THEN TRY_CONVERT(DECIMAL (10, 2),
        REPLACE(REPLACE(value, '€' ,''), 'M','')) * 1000000
        WHEN value LIKE '€%' AND value LIKE '%K' THEN TRY_CONVERT (DECIMAL(10,
          2),
      REPLACE(REPLACE(value, '€',''), 'K', '')) * 1000
       WHEN value LIKE '€%' THEN TRY_CONVERT(DECIMAL (10, 2), REPLACE(value, '€',
         ''))
ELSE value
END;

---Wage column(Removing of the 'M','€', and 'K' characters. Converting the values
  to Proper Money figure)

UPDATE [fifa21-Rawdata]
SET Wage = CASE
WHEN Wage LIKE '€%' AND Wage LIKE '%M' THEN TRY_CONVERT(DECIMAL (10, 2),
        REPLACE(REPLACE(Wage, '€' ,''), 'M','')) * 1000000
        WHEN value LIKE '€%' AND Wage LIKE '%K' THEN TRY_CONVERT (DECIMAL(10, 2),
      REPLACE(REPLACE(Wage, '€',''), 'K', '')) * 1000
       WHEN Wage LIKE '€%' THEN TRY_CONVERT(DECIMAL (10, 2), REPLACE(Wage, '€',
         ''))
ELSE Wage
```

```sql
END;


---Release_clause column(Removing of the 'M','€', and 'K' characters. Converting   ⇄
  the values to Proper Money figure

UPDATE [fifa21-Rawdata]
SET Release_Clause = CASE
WHEN Release_Clause LIKE '€%' AND Release_Clause LIKE '%M' THEN TRY_CONVERT       ⇄
  (DECIMAL (10, 2),
        REPLACE(REPLACE(Release_Clause, '€' ,''), 'M','')) * 1000000
        WHEN value LIKE '€%' AND Release_Clause LIKE '%K' THEN TRY_CONVERT        ⇄
          (DECIMAL(10, 2),
      REPLACE(REPLACE(Release_Clause, '€',''), 'K', '')) * 1000
       WHEN Release_Clause LIKE '€%' THEN TRY_CONVERT(DECIMAL (10, 2), REPLACE    ⇄
         (Release_Clause, '€', ''))
ELSE Release_Clause
END;


---------Replacing the inconsistencies in W_F,SM,IR,Club,Hits column with only    ⇄
  ('').

UPDATE [fifa21-Rawdata]
SET W_F = REPLACE(W_F, N'★', N'')
WHERE CHARINDEX(N'★', W_F) > 0;

UPDATE [fifa21-Rawdata]
SET SM = REPLACE(SM, N'★', N'')
WHERE CHARINDEX(N'★', SM) > 0;

UPDATE [fifa21-Rawdata]
SET IR = REPLACE(IR, N'★', N'')
WHERE CHARINDEX(N'★', IR) > 0;

UPDATE [fifa21-Rawdata]
SET Club = REPLACE(REPLACE(Club, '.', ''), '1', '')

UPDATE [fifa21-Rawdata]
SET Hits = CASE
        WHEN UPPER(Hits) LIKE '%K' THEN TRY_CONVERT(DECIMAL (10,2), SUBSTRING    ⇄
          (Hits, 1,
      LEN(Hits) - 1)) * 1000
      ELSE TRY_CONVERT(DECIMAL (10,2), Hits)
        END;

------Changing Data_Type of updated columns to their respective data-type---

ALTER TABLE [fifa21-Rawdata]
ALTER COLUMN Players_FullName text;
```

```sql
ALTER TABLE [fifa21-Rawdata]
ALTER COLUMN Height float

ALTER TABLE [fifa21-Rawdata]
ALTER COLUMN Weight float

ALTER TABLE [fifa21-Rawdata]
ALTER COLUMN Value Money

ALTER TABLE [fifa21-Rawdata]
ALTER COLUMN Wage Money

ALTER TABLE [fifa21-Rawdata]
ALTER COLUMN Release_Clause Money

ALTER TABLE [fifa21-Rawdata]
ALTER COLUMN W_F int

ALTER TABLE [fifa21-Rawdata]
ALTER COLUMN SM int

ALTER TABLE [fifa21-Rawdata]
ALTER COLUMN IR int

ALTER TABLE [fifa21-Rawdata]
ALTER COLUMN Hits Float

----Dropping some columns as they have alternatives created/updated in the data
  table

Alter Table [fifa21-Rawdata]
Drop Column Longname

Alter Table [fifa21-Rawdata]
Drop Column photoUrl

Alter Table [fifa21-Rawdata]
Drop Column Loan_Date_End

-------Renaming Columns for Better understanding.

EXEC sp_rename 'fifa21-Rawdata.Name', 'Short_Name ', 'COLUMN';

EXEC sp_rename 'fifa21-Rawdata.playerUrl', 'Players_FullName ', 'COLUMN';

EXEC sp_rename 'fifa21-Rawdata.Height', 'Height(Cm) ', 'COLUMN';

EXEC sp_rename 'fifa21-Rawdata.Weight', 'Weight(Kg) ', 'COLUMN';
```

```sql
EXEC sp_rename 'fifa21-Rawdata.Value', 'Value(€) ', 'COLUMN';

EXEC sp_rename 'fifa21-Rawdata.Wage', 'Wage(€) ', 'COLUMN';

EXEC sp_rename 'fifa21-Rawdata.Release_Clause', 'Release_Clause(€) ', 'COLUMN';

EXEC sp_rename 'fifa21-Rawdata.W_F', 'Weaker_Foot ', 'COLUMN';

EXEC sp_rename 'fifa21-Rawdata.SM', 'Skill_Moves ', 'COLUMN';

EXEC sp_rename 'fifa21-Rawdata.A_W', 'AttackingWork ', 'COLUMN';

EXEC sp_rename 'fifa21-Rawdata.D_W', 'DefensiveWork ', 'COLUMN';

EXEC sp_rename 'fifa21-Rawdata.IR', 'I_Resistance ', 'COLUMN';


-----Checking  for duplicates after cleaning and manipulation.

SELECT ID, COUNT(*) as num_duplicates
FROM [fifa21-Rawdata]
GROUP BY ID
HAVING COUNT(*) > 1;
```