Project 1 Milestone Report 2

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ACIS 5504: Information Systems Design and Database Concepts

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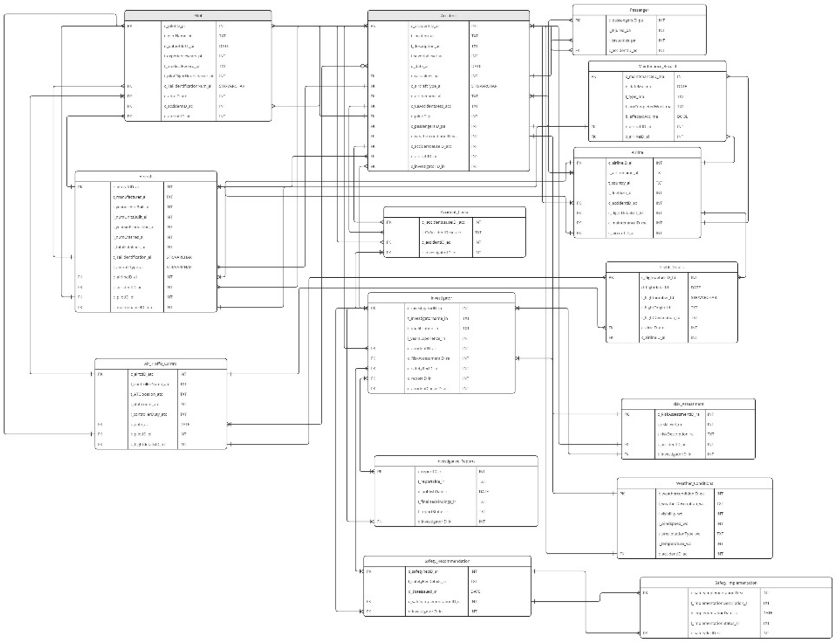
Table of Contents

Database Normalization

Picture:



Explanation:

The current database design is in third normal form (3NF) in the photo above. I reached this conclusion after a detailed normalization process that involved examining the relationships and attributes in the entities present in the ERD. I ensured that all functional dependencies were properly handled and that there were no transitive dependencies, which is a critical condition for achieving 3NF.

The process to bring the database to 3NF involved several key steps. First, I reviewed the data dictionary from Milestone 1 to identify all entities and their corresponding attributes. In this step, I focused on ensuring that all attributes were directly related to the primary key of the table they were placed in, adhering to the principles of first normal form (1NF) and second normal form (2NF). Specifically, in 1NF, I ensured that each table contains atomic values, with no repeating groups or arrays of values, and that each entity had unique rows and well-defined primary keys. For 2NF, I ensured that each non-primary key attribute was fully functionally dependent on the entire primary key. Fundamentally, this was particularly important in entities with composite primary keys, where attributes had to depend on the entire key, not just a subset.

To achieve this form, I worked to eliminate any transitive dependencies, ensuring that non-primary key attributes were dependent solely on the primary key and not on other non-key attributes. For example, in the Airline entity, attributes like aircraftType were directly related to the airline's operations but did not create a transitive dependency with non-key attributes in other tables, such as Flight Details or Accident. This approach helped make sure that the relational model adhered to the principles of 3NF.

Using the tools in MIRO Board, I mapped out the entities and added relationships between them. Each relationship was verified to ensure it did not introduce transitive dependencies, confirming that the structure complied with 3NF. For instance, the Accident entity has clear relationships with other entities, such as Aircraft and Maintenance Record, ensuring that all attributes belong in their respective entities without indirect dependencies on non-key attributes in other tables. Additionally, I cross-referenced class materials to solidify my understanding of 3NF and used these guidelines to adjust the placement of attributes and relationships to reflect proper normalization. I also made some minor changes to the attribute types since some of the original designations were either meant to be something else, especially in regard to the information at hand such as aircraftType where I changed it to a string/varchar since often airplanes include letters followed by numbers. Did a complete verification of all relationships in 3NF diagram to ensure it accurately reflected the relationship between the entities properly. By following this process, the ERD now represents a database in third normal form, as demonstrated in the model.

SQL DDL Code:

Code:

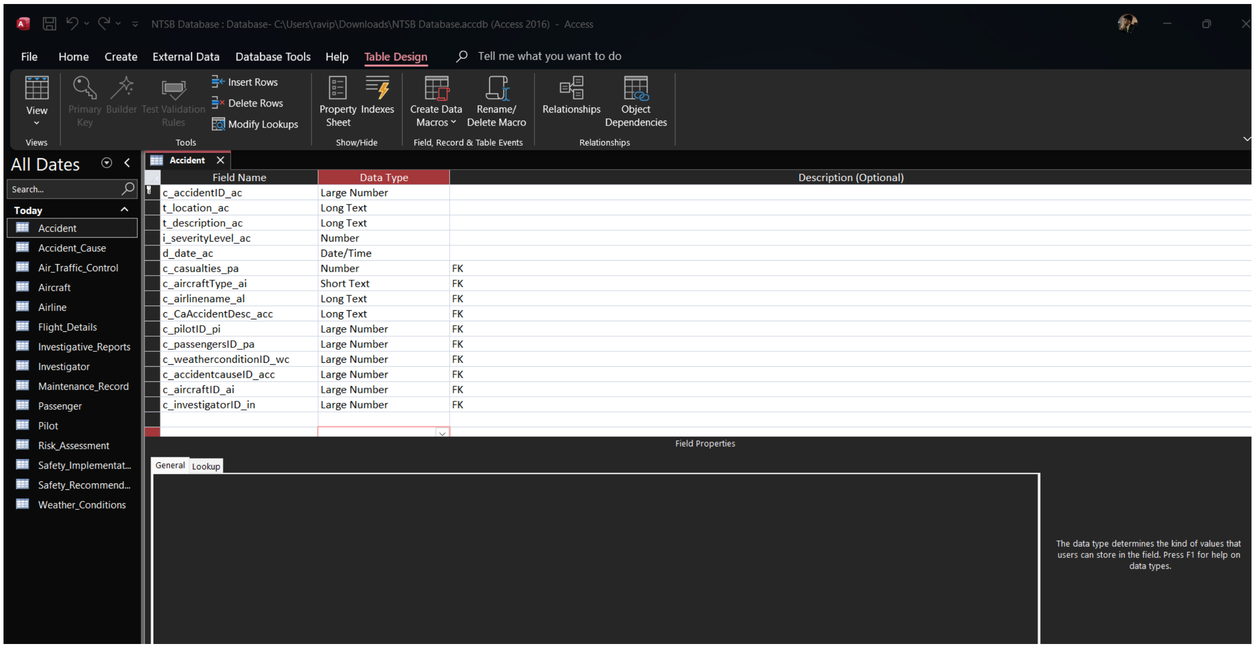
```
CREATE DATABASE NTSB_DB;

CREATE TABLE Accident (

   c_accidentID_ac INT NOT NULL,

   t_location_ac TEXT,

   t_description_ac TEXT,

   i_severityLevel_ac INT,

   d_date_ac DATE,

   c_casualties_pa INT,

   c_aircraftType_ai VARCHAR(200),
   c_airlinename_al TEXT,
   c_CaAccidentDesc_acc TEXT,
   c_pilotID_pi INT,
   c_passengersID_pa INT,
   c_weatherconditionID_wc INT,
   c_accidentcauseID_acc INT,
   c_aircraftID_ai INT,
   c_investigatorID_in INT,
   CONSTRAINT accident_pk PRIMARY KEY (c_accidentID_ac),
   CONSTRAINT fk_pilot FOREIGN KEY (c_pilotID_pi) REFERENCES Pilot(c_pilotID_pi),
   CONSTRAINT fk_passenger FOREIGN KEY (c_passengersID_pa) REFERENCES Passenger(c_passengersID_pa),
   CONSTRAINT fk_weathercondition FOREIGN KEY (c_weatherconditionID_wc) REFERENCES Weather_Conditions(c_weatherconditionID_wc),
   CONSTRAINT fk_accidentcause FOREIGN KEY (c_accidentcauseID_acc) REFERENCES Accident_Cause(c_accidentcauseID_acc),
   CONSTRAINT fk_aircraft FOREIGN KEY (c_aircraftID_ai) REFERENCES Aircraft(c_aircraftID_ai),
   CONSTRAINT fk_investigator FOREIGN KEY (c_investigatorID_in) REFERENCES
Investigator(c_investigatorID_in),
CONSTRAINT fk_accidentcause2 FOREIGN KEY (c_CaAccidentDesc_acc) REFERENCES
Accident_Cause(t_CaAccidentDesc_acc),
CONSTRAINT fk_airline FOREIGN KEY (c_airlinename_al) REFERENCES
Airline(t_airlinename_al),
CONSTRAINT fk_aircraft2 FOREIGN KEY (c_aircraftType_ai) REFERENCES
Aircraft(t_aircraftType_ai),
CONSTRAINT fk_passenger2 FOREIGN KEY (c_casualties_pa) REFERENCES
Aircraft(i_casualties_pa)
);



CREATE TABLE Passenger (
   c_passengersID_pa INT NOT NULL,
   i_Injured_pa INT,
   i_casualties_pa INT,
   c_accidentID_ac INT NOT NULL,
   CONSTRAINT passenger_pk PRIMARY KEY (c_passengersID_pa),
   CONSTRAINT fk_accident2 FOREIGN KEY (c_accidentID_ac) REFERENCES
Accident(c_accidentID_ac)
);


CREATE TABLE Air_Traffic_Control (
   c_airtcID_atc INT NOT NULL,
   t_controllerName_atc TEXT,
   t_ATClocation_atc TEXT,
   i_staffcount_atc INT,
   i_controllerDuty_atc TEXT,
   c_date_ac DATE,
   c_pilotID_pi INT,
   c_flightdetailsID_fd INT,
   CONSTRAINT airtrafficcontrol_pk PRIMARY KEY (c_airtcID_atc),
   CONSTRAINT fk_pilot2 FOREIGN KEY (c_pilotID_pi) REFERENCES Pilot(c_pilotID_pi),
   CONSTRAINT fk_flightdetails FOREIGN KEY (c_flightdetailsID_fd) REFERENCES
Flight_Details(c_flightdetailsID_fd),
     CONSTRAINT fk_accident3 FOREIGN KEY (c_date_ac) REFERENCES
Accident(d_date_ac)
```

```
);

CREATE TABLE Aircraft (
    c_aircraftID_ai INT NOT NULL,
    t_manufacturer_ai TEXT,
    i_yearacAircBuilt_ai INT,
    i_numUnitsBuilt_ai INT,
    i_yearsinProduction_ai INT,
    i_numCrashes_ai INT,
    i_totalFatalities_ai INT,
    t_Tailidentification_ai VARCHAR(200),
    t_aircraftType_ai VARCHAR(200),
    c_airlineID_al INT,
    c_accidentID_ac INT,
    c_pilotID_pi INT,
    c_maintenanceID_ma INT,
    CONSTRAINT aircraft_pk PRIMARY KEY (c_aircraftID_ai),
    CONSTRAINT fk_airline4 FOREIGN KEY (c_airlineID_al) REFERENCES Airline(c_airlineID_al),
    CONSTRAINT fk_accident4 FOREIGN KEY (c_accidentID_ac) REFERENCES Accident(c_accidentID_ac),
    CONSTRAINT fk_pilot3 FOREIGN KEY (c_pilotID_pi) REFERENCES Pilot(c_pilotID_pi),
    CONSTRAINT fk_maintenance FOREIGN KEY (c_maintenanceID_ma) REFERENCES Maintenance_Record(c_maintenanceID_ma)
);


CREATE TABLE Pilot (
    c_pilotID_pi INT NOT NULL,
    t_pilotName_pi TEXT,
    d_dateofBirth_pi DATE,
    i_experienceyears_pi INT,
    t_medicalRecord_pi TEXT,
    i_pilotFlightHoursinacair_pi INT,
    c_TailidentificationNum_ai VARCHAR(200),
    c_airtcID_atc INT,
    c_accidentID_ac INT,
    c_aircraftID_ai INT,
    CONSTRAINT pilot_pk PRIMARY KEY (c_pilotID_pi),
    CONSTRAINT fk_aircraft5 FOREIGN KEY (c_aircraftID_ai) REFERENCES
Aircraft(c_aircraftID_ai),
    CONSTRAINT fk_airtrafficcontrol FOREIGN KEY (c_airtcID_atc) REFERENCES
Air_Traffic_Control(c_airtcID_atc),
    CONSTRAINT fk_accident6 FOREIGN KEY (c_accidentID_ac) REFERENCES
Accident(c_accidentID_ac),
CONSTRAINT fk_aircraft6 FOREIGN KEY (c_TailidentificationNum_ai) REFERENCES
Aircraft(t_TailidentificationNum_ai)
);


CREATE TABLE Safety_Recommendation (
    c_safetyRecID_sr INT NOT NULL,
    t_safetyRecDetails_sr TEXT,
    d_dateIssued_sr DATE,
    c_safetyimplementationID_si INT,
    c_investigatorID_in INT,
    CONSTRAINT safetyrec_pk PRIMARY KEY (c_safetyRecID_sr),
    CONSTRAINT fk_safetyimplementation FOREIGN KEY (c_safetyimplementationID_si) REFERENCES Safety_Implementation(c_safetyimplementationID_si),
    CONSTRAINT fk_investigator3 FOREIGN KEY (c_investigatorID_in) REFERENCES Investigator(c_investigatorID_in)
);


CREATE TABLE Investigative_Reports (
    c_reportID_ir INT NOT NULL,
    t_reportTitle_ir TEXT,
    d_publishDate_i DATE,
    t_finalizedFindings_ir TEXT,
    t_reportStatus_ir TEXT,
    c_investigatorID_in INT,
    CONSTRAINT investigativereports_pk PRIMARY KEY (c_reportID_ir),
    CONSTRAINT fk_investigator4 FOREIGN KEY (c_investigatorID_in) REFERENCES Investigator(c_investigatorID_in)
);


CREATE TABLE Investigator (
    c_investigatorID_in INT NOT NULL,
    t_Investigatorname_in TEXT,
    t_qualification_in TEXT,
    i_yearsExperience_in INT,
    c_accidentID_ac INT,
    c_RiskAssessmentID_ra INT,
    c_safetyRecID_sr INT,
    c_reportID_ir INT,
    c_accidentCauseID_acc INT,
    CONSTRAINT investigator_pk PRIMARY KEY (c_investigatorID_in),
    CONSTRAINT fk_accident7 FOREIGN KEY (c_accidentID_ac) REFERENCES
Accident(c_accidentID_ac),
    CONSTRAINT fk_riskassessment FOREIGN KEY (c_RiskAssessmentID_ra)
REFERENCES Risk_Assessment(c_RiskAssessmentID_ra),
    CONSTRAINT fk_safetyrec FOREIGN KEY (c_safetyRecID_sr) REFERENCES
Safety_Recommendation(c_safetyRecID_sr),
    CONSTRAINT fk_report FOREIGN KEY (c_reportID_ir) REFERENCES
Investigative_Reports(c_reportID_ir),
    CONSTRAINT fk_accidentcause3 FOREIGN KEY (c_accidentCauseID_acc) REFERENCES Accident_Cause(c_accidentcauseID_acc)
);

CREATE TABLE Accident_Cause (
    c_accidentcauseID_acc INT NOT NULL,
    t_CaAccidentDesc_acc TEXT,
    c_accidentID_ac INT,
    c_investigatorID_in INT,
    CONSTRAINT accidentcause_pk PRIMARY KEY (c_accidentcauseID_acc),
    CONSTRAINT fk_accident9 FOREIGN KEY (c_accidentID_ac) REFERENCES Accident(c_accidentID_ac),
    CONSTRAINT fk_investigator5 FOREIGN KEY (c_investigatorID_in) REFERENCES Investigator(c_investigatorID_in)
);

CREATE TABLE Safety_Implementation (
    c_safetyimplementationID_si INT NOT NULL,
    t_implementationDescription_si TEXT,
    d_implementationDate_si DATE,

    t_implementationStatus_si TEXT,

    c_safetyRecID_sr INT,

    CONSTRAINT safetyimplementation_pk PRIMARY KEY (c_safetyimplementationID_si),

    CONSTRAINT fk_safetyrec2 FOREIGN KEY (c_safetyRecID_sr) REFERENCES
Safety_Recommendation(c_safetyRecID_sr)

);



CREATE TABLE Weather_Conditions (

    c_weatherconditionID_wc INT NOT NULL,

    t_weatherDescription_wc TEXT,

    i_visibility_wc INT,

    i_windspeed_wc INT,

    t_precipitationType_wc TEXT,

    i_temperature_wc INT,

    c_accidentID_ac INT,

    CONSTRAINT weatherconditions_pk PRIMARY KEY (c_weatherconditionID_wc),

    CONSTRAINT fk_accident10 FOREIGN KEY (c_accidentID_ac) REFERENCES
Accident(c_accidentID_ac)
```

```
);

CREATE TABLE Risk_Assessment (
   c_RiskAssessmentID_ra INT NOT NULL,
   i_riskLevel_ra INT,
   t_riskDescription_ra TEXT,
   c_accidentID_ac INT,
   c_investigatorID_in INT,
   CONSTRAINT riskassessment_pk PRIMARY KEY (c_RiskAssessmentID_ra),
   CONSTRAINT fk_accident11 FOREIGN KEY (c_accidentID_ac) REFERENCES Accident(c_accidentID_ac),
   CONSTRAINT fk_investigator6 FOREIGN KEY (c_investigatorID_in) REFERENCES Investigator(c_investigatorID_in)
);

CREATE TABLE Flight_Details (
   c_flightdetailsID_fd INT NOT NULL,
   d_flightdate_fd DATE,
   t_flightnumber_fd VARCHAR(200),
   t_flightOrigin_fd TEXT,

   t_flightDestination_fd TEXT,

   c_airtcID_atc INT,

   c_airlineID_al INT,

   CONSTRAINT flightdetails_pk PRIMARY KEY (c_flightdetailsID_fd),

   CONSTRAINT fk_airtrafficcontrol2 FOREIGN KEY (c_airtcID_atc) REFERENCES
Air_Traffic_Control(c_airtcID_atc),

   CONSTRAINT fk_airline9 FOREIGN KEY (c_airlineID_al) REFERENCES
Airline(c_airlineID_al)

);


CREATE TABLE Airline (

   c_airlineID_al INT NOT NULL,

   t_airlinename_al TEXT,

   t_country_al TEXT,

   i_fleetSize_al INT,

   c_accidentID_ac INT,

   c_flightDetailsID_fd INT,

   c_maintenanceID_ma INT,
   c_aircraftID_ai INT,
   CONSTRAINT airline_pk PRIMARY KEY (c_airlineID_al),
   CONSTRAINT fk_accident13 FOREIGN KEY (c_accidentID_ac) REFERENCES
Accident(c_accidentID_ac),
   CONSTRAINT fk_flightdetails FOREIGN KEY (c_flightDetailsID_fd) REFERENCES
Flight_Details(c_flightdetailsID_fd),
   CONSTRAINT fk_maintenance FOREIGN KEY (c_maintenanceID_ma) REFERENCES
Maintenance_Record(c_maintenanceID_ma),
  CONSTRAINT fk_aircraft11 FOREIGN KEY (c_aircraftID_ai) REFERENCES
Aircraft(c_aircraftID_ai)
);


CREATE TABLE Maintenance_Record (
   c_maintenanceID_ma INT NOT NULL,
   d_dateMa_ma DATE,
   t_type_ma TEXT,
   t_accCompletedWork_ma TEXT,
   b_affectedAcc_ma TINYINT(1),
   c_aircraftID_ai INT,
   c_airlineID_al INT,

   CONSTRAINT maintenance_pk PRIMARY KEY (c_maintenanceID_ma),

   CONSTRAINT fk_aircraft12 FOREIGN KEY (c_aircraftID_ai) REFERENCES
Aircraft(c_aircraftID_ai),

   CONSTRAINT fk_airline14 FOREIGN KEY (c_airlineID_al) REFERENCES
Airline(c_airlineID_al)

);
```

DBMS Implementation

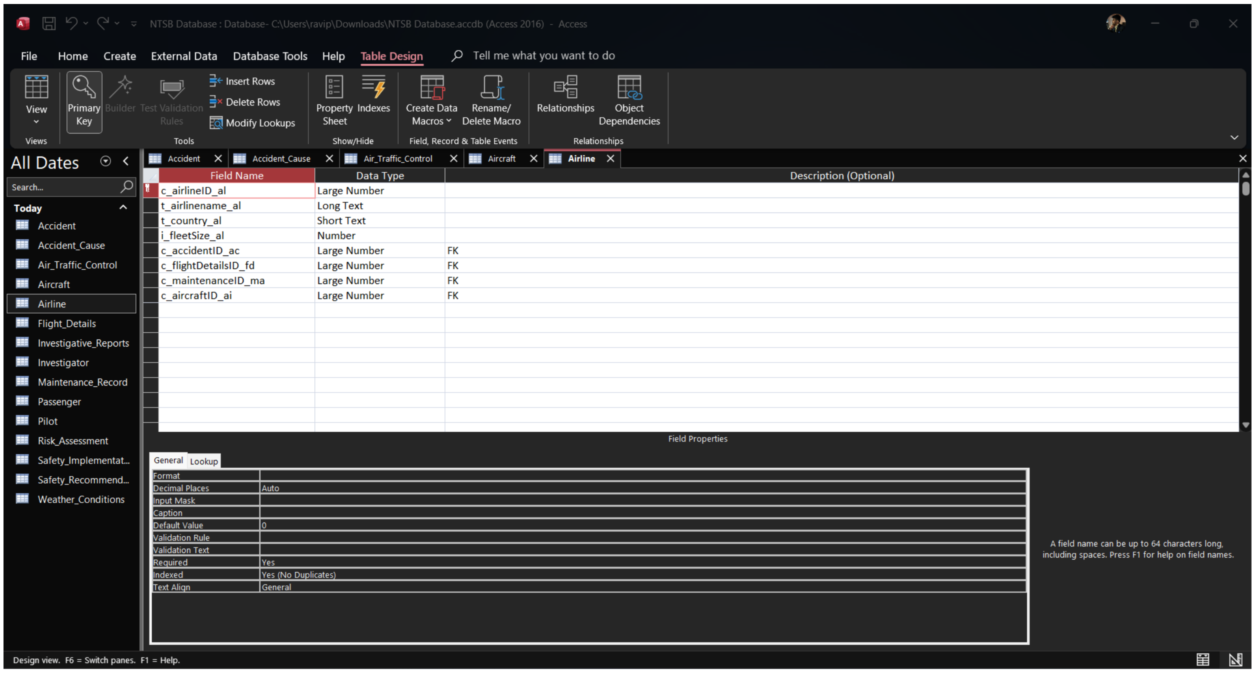
- **Accident**



Field Name	Data Type	Description (Optional)
c_accidentID_ac	Large Number	
t_location_ac	Long Text	
t_description_ac	Long Text	
i_severityLevel_ac	Number	
d_date_ac	Date/Time	
c_casualties_pa	Number	FK
c_aircraftType_ai	Short Text	FK
c_airlinename_al	Long Text	FK
c_CaAccidentDesc_acc	Long Text	FK
c_pilotID_pi	Large Number	FK
c_passengersID_pa	Large Number	FK
c_weatherconditionID_wc	Large Number	FK
c_accidentcauseID_acc	Large Number	FK
c_aircraftID_ai	Large Number	FK
c_investigatorID_in	Large Number	FK

The data type determines the kind of values that users can store in the field. Press F1 for help on data types.

- ## Airline

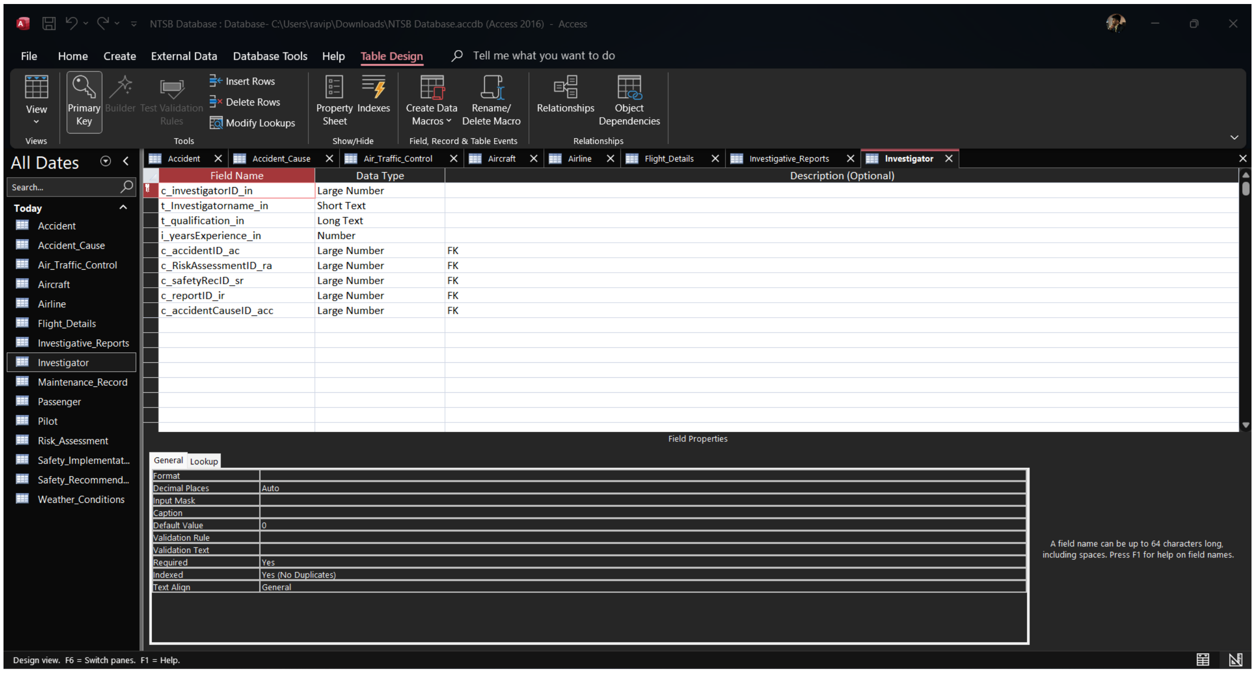


Field Name	Data Type	Description (Optional)
c_airlineID_al	Large Number	
t_airlinename_al	Long Text	
t_country_al	Short Text	
i_fleetSize_al	Number	
c_accidentID_ac	Large Number	FK
c_flightDetailsID_fd	Large Number	FK
c_maintenanceID_ma	Large Number	FK
c_aircraftID_ai	Large Number	FK

Format	
Decimal Places	Auto
Input Mask	
Caption	
Default Value	0
Validation Rule	
Validation Text	
Required	Yes
Indexed	Yes (No Duplicates)
Text Align	General

A field name can be up to 64 characters long, including spaces. Press F1 for help on field names.

- ## Investigator

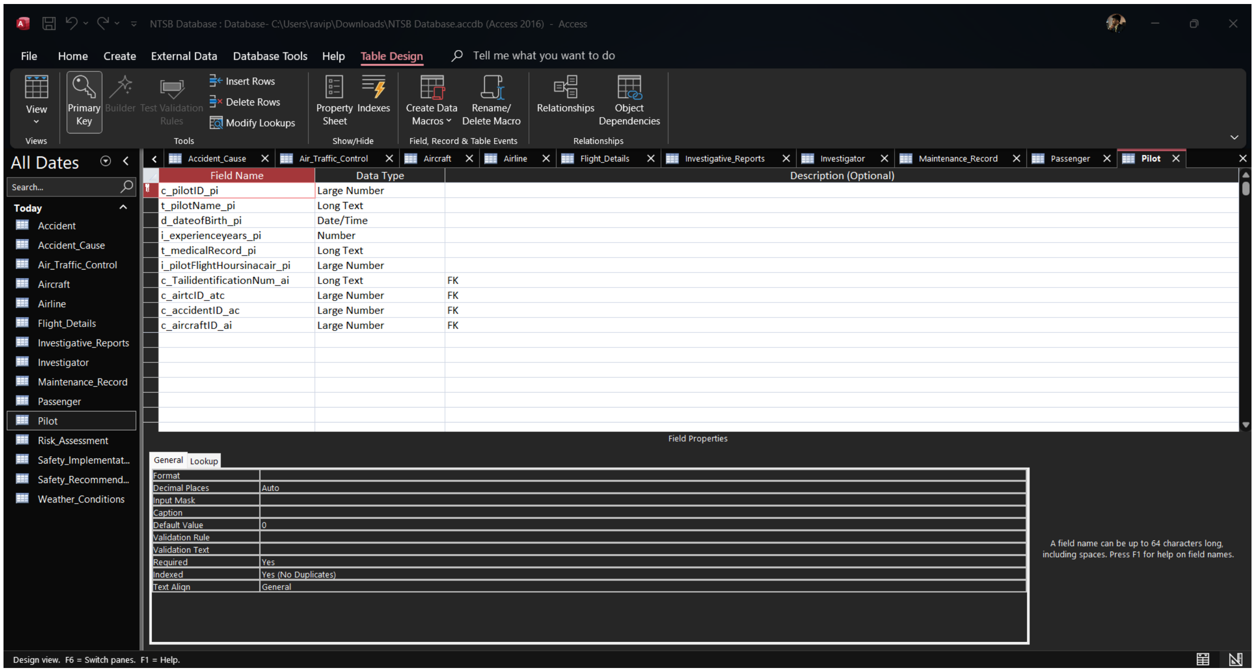


Field Name	Data Type	Description (Optional)
c_investigatorID_in	Large Number	
t_Investigatorname_in	Short Text	
t_qualification_in	Long Text	
i_yearsExperience_in	Number	
c_accidentID_ac	Large Number	FK
c_RiskAssessmentID_ra	Large Number	FK
c_safetyRecID_sr	Large Number	FK
c_reportID_ir	Large Number	FK
c_accidentCauseID_acc	Large Number	FK

Format	
Decimal Places	Auto
Input Mask	
Caption	
Default Value	0
Validation Rule	
Validation Text	
Required	Yes
Indexed	Yes (No Duplicates)
Text Align	General

A field name can be up to 64 characters long, including spaces. Press F1 for help on field names.

- ## Pilot



NTSB Database : Database- C:\Users\ravip\Downloads\NTSB Database.accdb (Access 2016) - Access

Field Name	Data Type	Description (Optional)
c_pilotID_pi	Large Number	
t_pilotName_pi	Long Text	
d_dateofBirth_pi	Date/Time	
i_experienceyears_pi	Number	
t_medicalRecord_pi	Long Text	
i_pilotFlightHoursinacair_pi	Large Number	
c_TailidentificationNum_ai	Long Text	FK
c_airtcID_atc	Large Number	FK
c_accidentID_ac	Large Number	FK
c_aircraftID_ai	Large Number	FK

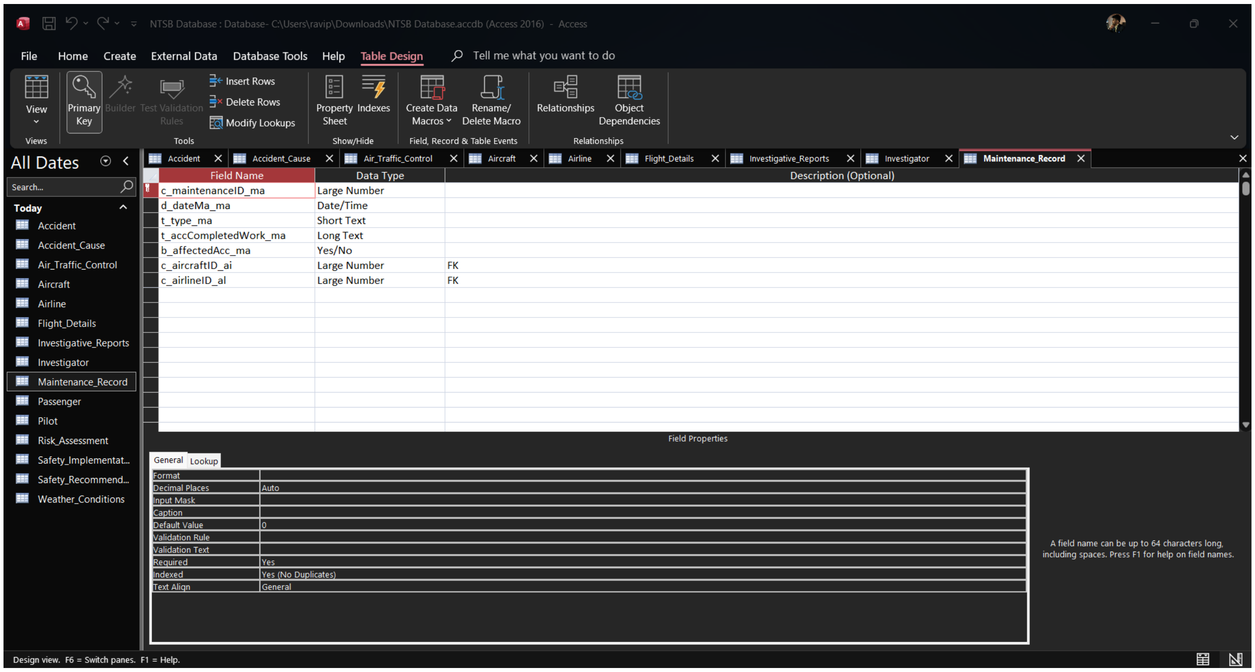
Field Properties

Format	
Decimal Places	Auto
Input Mask	
Caption	
Default Value	0
Validation Rule	
Validation Text	
Required	Yes
Indexed	Yes (No Duplicates)
Text Align	General

A field name can be up to 64 characters long, including spaces. Press F1 for help on field names.

Design view. F6 = Switch panes. F1 = Help.

- ## Maintenance_Record



NTSB Database : Database- C:\Users\ravip\Downloads\NTSB Database.accdb (Access 2016) - Access

Field Name	Data Type	Description (Optional)
c_maintenanceID_ma	Large Number	
d_dateMa_ma	Date/Time	
t_type_ma	Short Text	
t_accCompletedWork_ma	Long Text	
b_affectedAcc_ma	Yes/No	
c_aircraftID_ai	Large Number	FK
c_airlineID_al	Large Number	FK

Field Properties

Format	
Decimal Places	Auto
Input Mask	
Caption	
Default Value	0
Validation Rule	
Validation Text	
Required	Yes
Indexed	Yes (No Duplicates)
Text Align	General

A field name can be up to 64 characters long, including spaces. Press F1 for help on field names.

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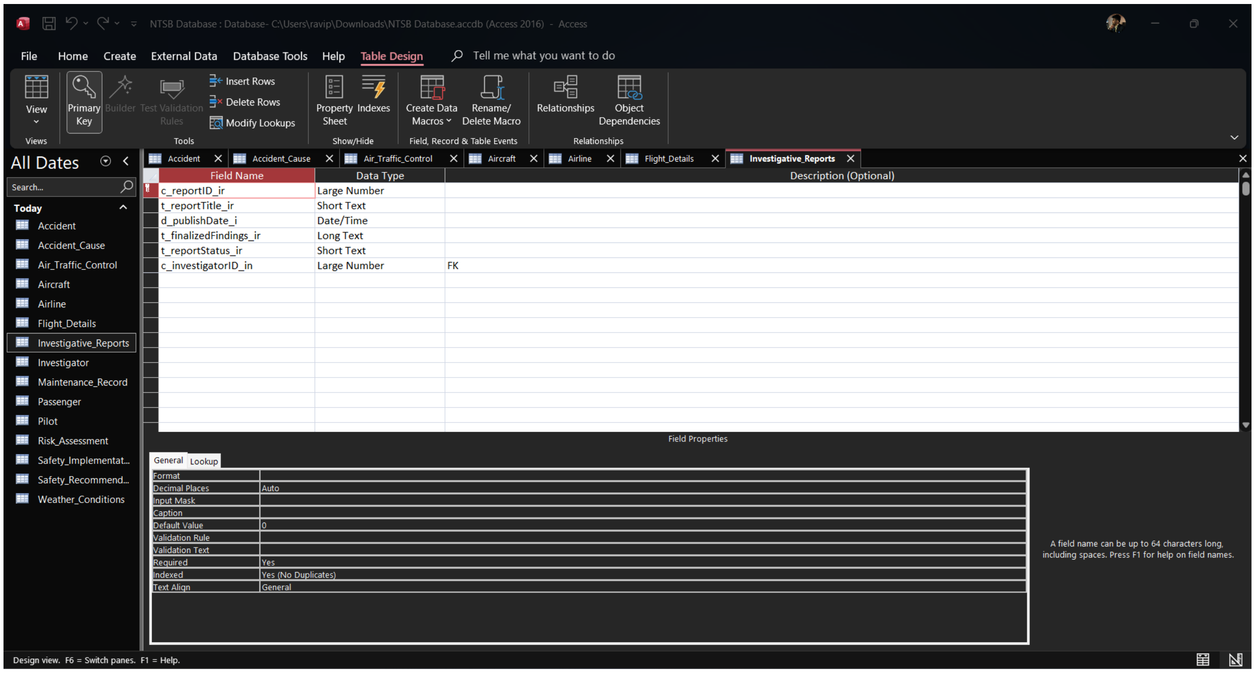
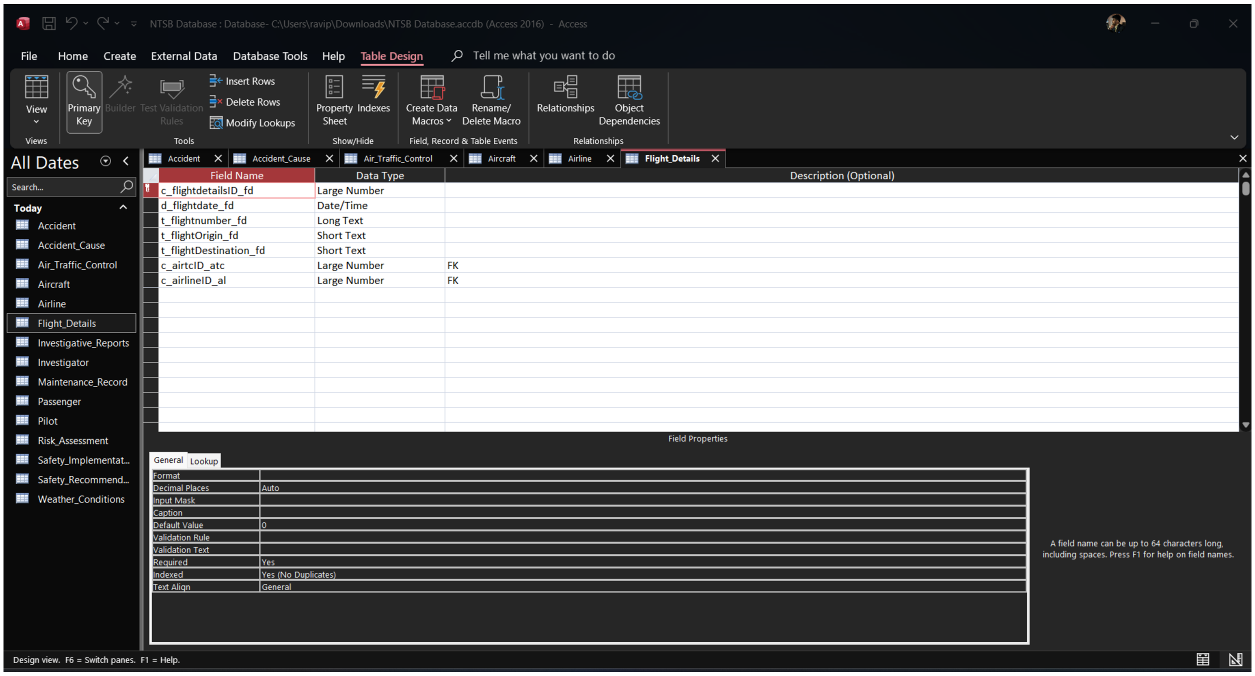
- ## Investigative_Reports



Field Name	Data Type	Description (Optional)
c_reportID_ir	Large Number	
t_reportTitle_ir	Short Text	
d_publishDate_i	Date/Time	
t_finalizedFindings_ir	Long Text	
t_reportStatus_ir	Short Text	
c_investigatorID_in	Large Number	FK

Format	
Decimal Places	Auto
Input Mask	
Caption	
Default Value	0
Validation Rule	
Validation Text	
Required	Yes
Indexed	Yes (No Duplicates)
Text Align	General

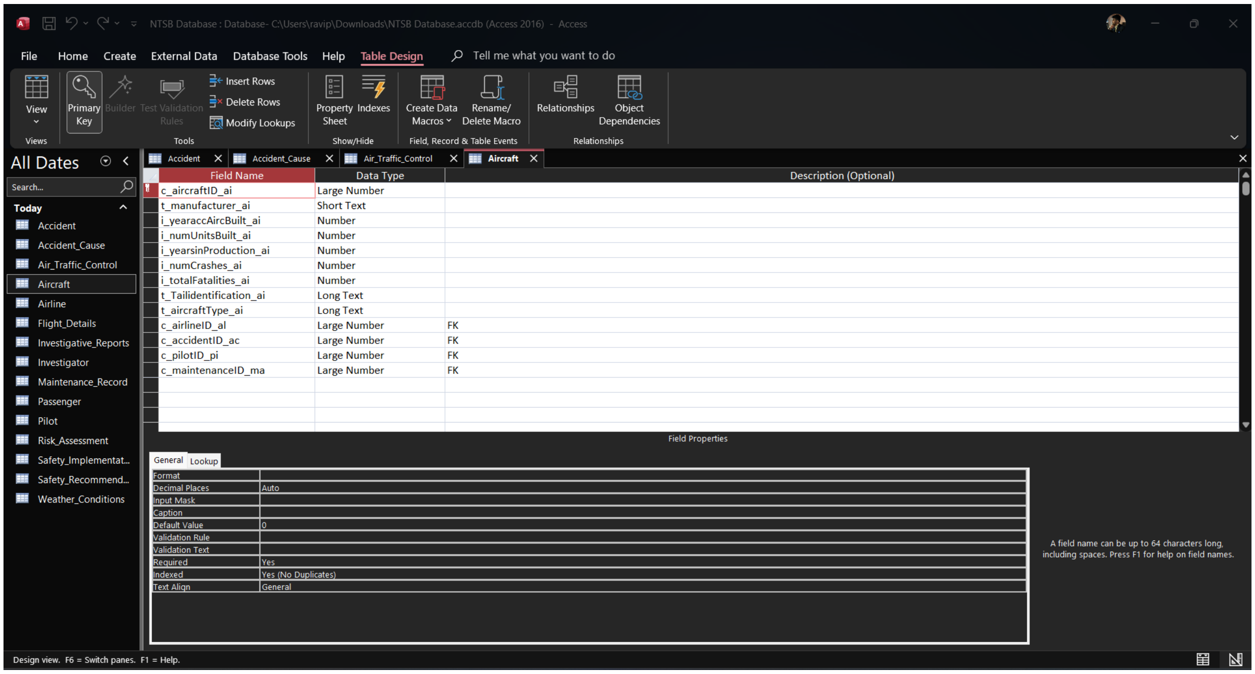
- **Flight_Details**



Field Name	Data Type	Description (Optional)
c_flightdetailsID_fd	Large Number	
d_flightdate_fd	Date/Time	
t_flightnumber_fd	Long Text	
t_flightOrigin_fd	Short Text	
t_flightDestination_fd	Short Text	
c_airtcID_atc	Large Number	FK
c_airlineID_al	Large Number	FK

Format	
Decimal Places	Auto
Input Mask	
Caption	
Default Value	0
Validation Rule	
Validation Text	
Required	Yes
Indexed	Yes (No Duplicates)
Text Align	General

- **Aircraft**



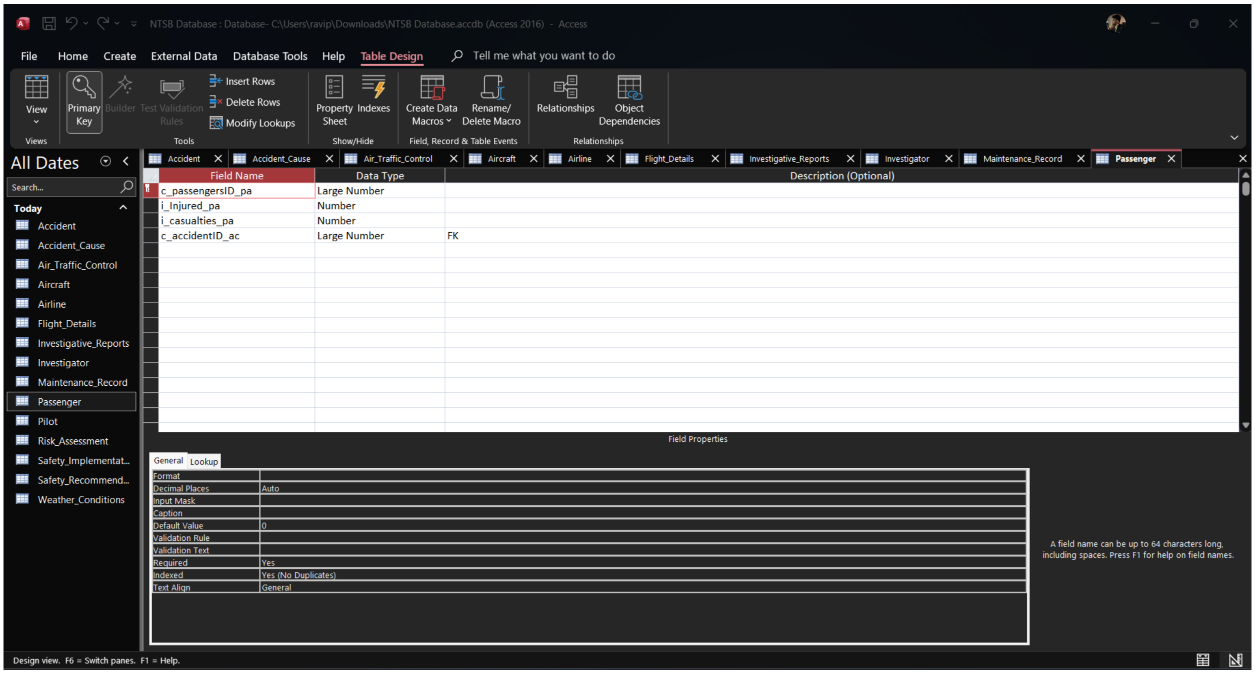
Field Name	Data Type	Description (Optional)
c_aircraftID_ai	Large Number	
t_manufacturer_ai	Short Text	
i_yearaccAircBuilt_ai	Number	
i_numUnitsBuilt_ai	Number	
i_yearsinProduction_ai	Number	
i_numCrashes_ai	Number	
i_totalFatalities_ai	Number	
t_Tailidentification_ai	Long Text	
t_aircraftType_ai	Long Text	
c_airlineID_al	Large Number	FK
c_accidentID_ac	Large Number	FK
c_pilotID_pi	Large Number	FK
c_maintenanceID_ma	Large Number	FK

Format	
Decimal Places	Auto
Input Mask	
Caption	
Default Value	0
Validation Rule	
Validation Text	
Required	Yes
Indexed	Yes (No Duplicates)
Text Align	General

A field name can be up to 64 characters long, including spaces. Press F1 for help on field names.

Design view. F6 = Switch panes. F1 = Help.

- **Passenger**



Field Name	Data Type	Description (Optional)
c_passengersID_pa	Large Number	
i_Injured_pa	Number	
i_casualties_pa	Number	
c_accidentID_ac	Large Number	FK

Format	
Decimal Places	Auto
Input Mask	
Caption	
Default Value	0
Validation Rule	
Validation Text	
Required	Yes
Indexed	Yes (No Duplicates)
Text Align	General

A field name can be up to 64 characters long, including spaces. Press F1 for help on field names.

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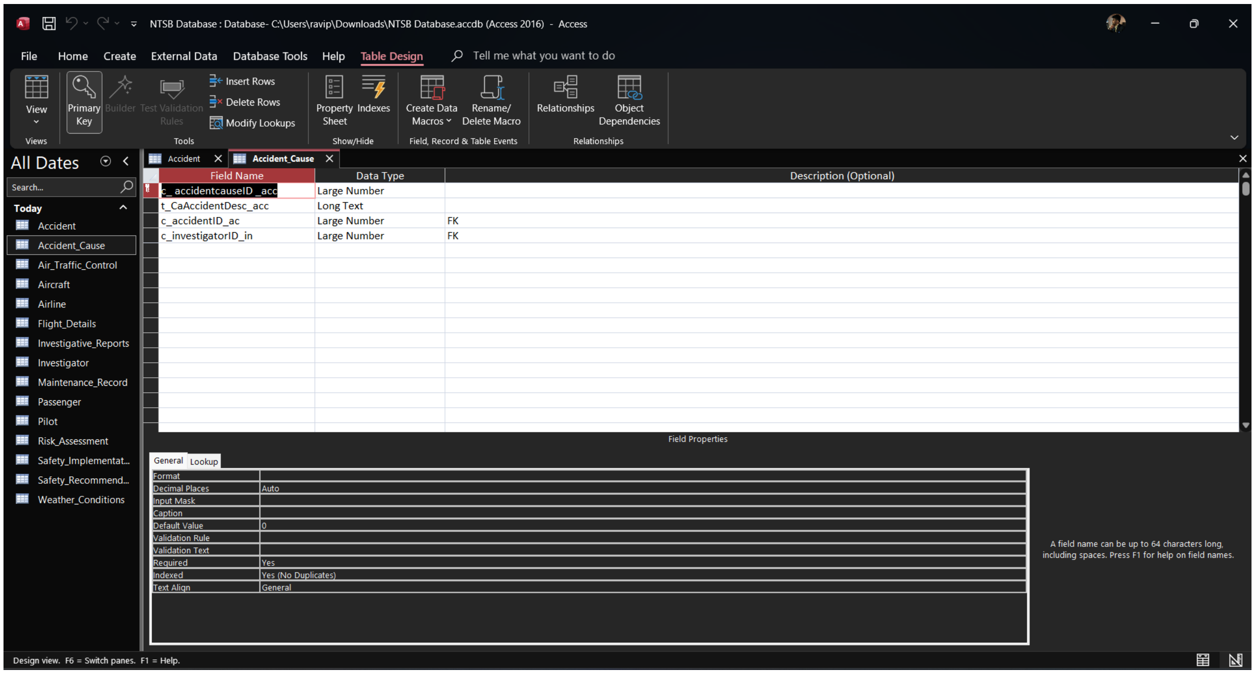
- **Accident_Cause**



NTSB Database : Database- C:\Users\ravip\Downloads\NTSB Database.accdb (Access 2016) - Access

Field Name	Data Type	Description (Optional)
c_ accidentcauseID _acc	Large Number	
t_CaAccidentDesc_acc	Long Text	
c_accidentID_ac	Large Number	FK
c_investigatorID_in	Large Number	FK

Format	
Decimal Places	Auto
Input Mask	
Caption	
Default Value	0
Validation Rule	
Validation Text	
Required	Yes
Indexed	Yes (No Duplicates)
Text Align	General

A field name can be up to 64 characters long, including spaces. Press F1 for help on field names.

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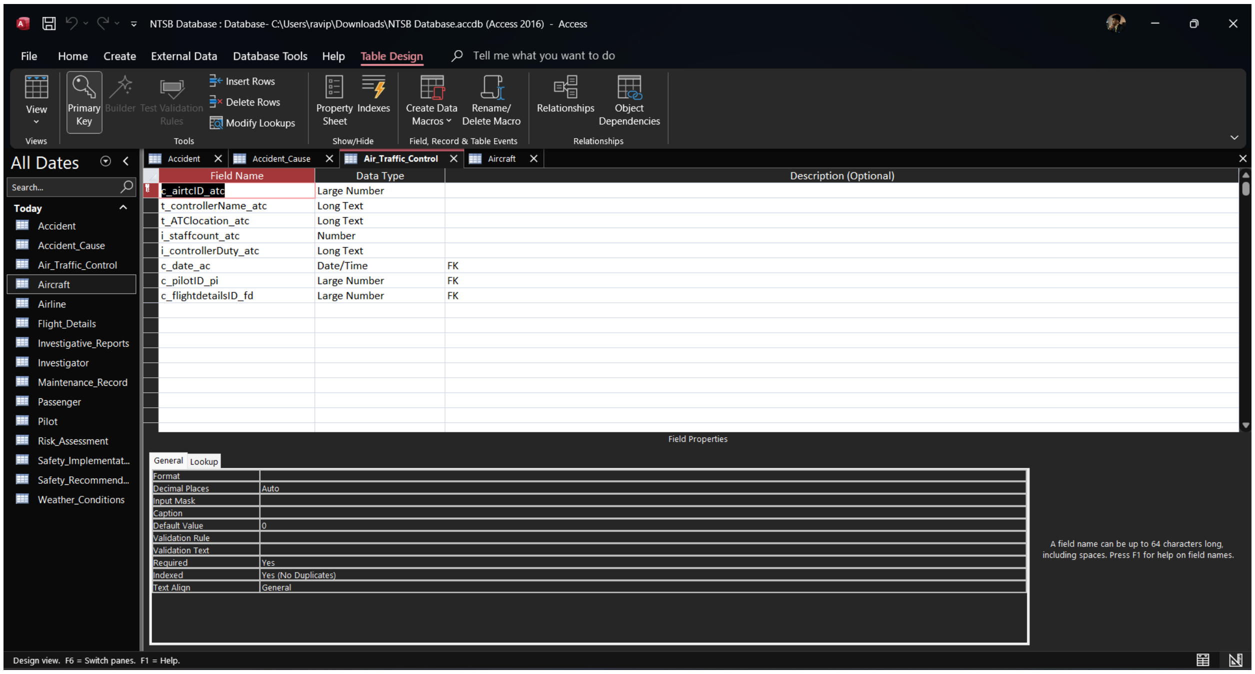
- ## Air_Traffic_Control



NTSB Database : Database- C:\Users\ravip\Downloads\NTSB Database.accdb (Access 2016) - Access

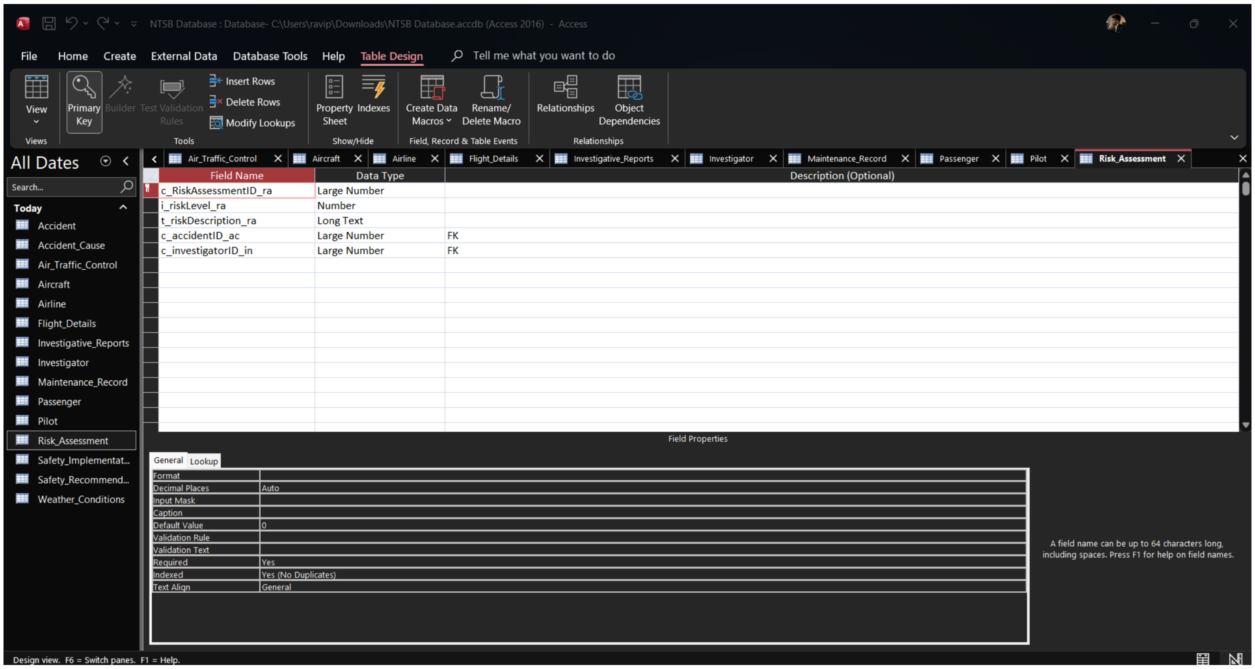
Field Name	Data Type	Description (Optional)
c_airtcID_atc	Large Number	
t_controllerName_atc	Long Text	
t_ATClocation_atc	Long Text	
i_staffcount_atc	Number	
i_controllerDuty_atc	Long Text	
c_date_ac	Date/Time	FK
c_pilotID_pi	Large Number	FK
c_flightdetailsID_fd	Large Number	FK

Format	
Decimal Places	Auto
Input Mask	
Caption	
Default Value	0
Validation Rule	
Validation Text	
Required	Yes
Indexed	Yes (No Duplicates)
Text Align	General

A field name can be up to 64 characters long, including spaces. Press F1 for help on field names.

Design view. F6 = Switch panes. F1 = Help.

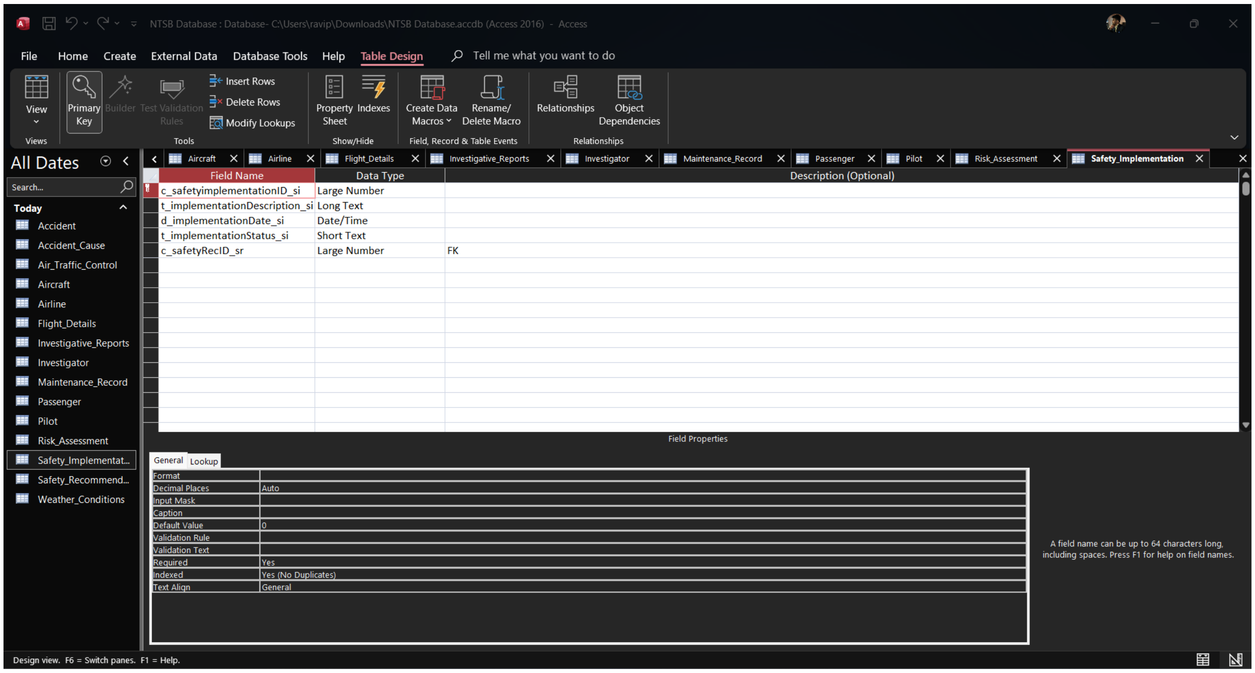
- ## Risk_Assessment



Field Name	Data Type	Description (Optional)
c_RiskAssessmentID_ra	Large Number	
i_riskLevel_ra	Number	
t_riskDescription_ra	Long Text	
c_accidentID_ac	Large Number	FK
c_investigatorID_in	Large Number	FK

Format	
Decimal Places	Auto
Input Mask	
Caption	
Default Value	0
Validation Rule	
Validation Text	
Required	Yes
Indexed	Yes (No Duplicates)
Text Align	General

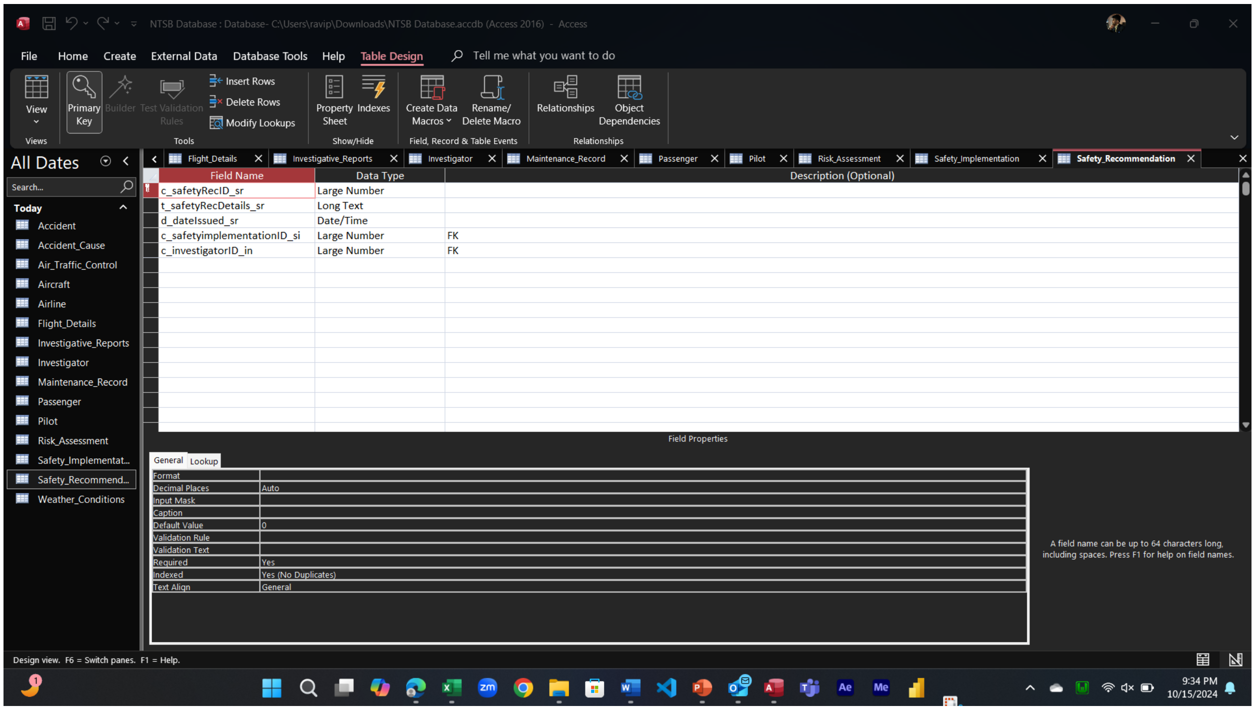
- **Safety_Implementation**



Field Name	Data Type	Description (Optional)
c_safetyimplementationID_si	Large Number	
t_implementationDescription_si	Long Text	
d_implementationDate_si	Date/Time	
t_implementationStatus_si	Short Text	
c_safetyRecID_sr	Large Number	FK

Format	
Decimal Places	Auto
Input Mask	
Caption	
Default Value	0
Validation Rule	
Validation Text	
Required	Yes
Indexed	Yes (No Duplicates)
Text Align	General

- **Safety_Recommendation:**


NTSB Database : Database- C:\Users\ravip\Downloads\NTSB Database.accdb (Access 2016) - Access
File Home Create External Data Database Tools Help Table Design Tell me what you want to do
View Primary Key Builder Test Validation Rules Insert Rows Delete Rows Modify Lookups Property Sheet Indexes Create Data Macros Rename/Delete Macro Relationships Object Dependencies
All Dates
Accident
Accident_Cause
Air_Traffic_Control
Aircraft
Airline
Flight_Details
Investigative_Reports
Investigator
Maintenance_Record
Passenger
Pilot
Risk_Assessment
Safety_Implementat...
Safety_Recommend...
Weather_Conditions
Safety_Recommendation

Field Name	Data Type	Description (Optional)
c_safetyRecID_sr	Large Number	
t_safetyRecDetails_sr	Long Text	
d_dateIssued_sr	Date/Time	
c_safetyimplementationID_si	Large Number	FK
c_investigatorID_in	Large Number	FK

Field Properties

General Lookup

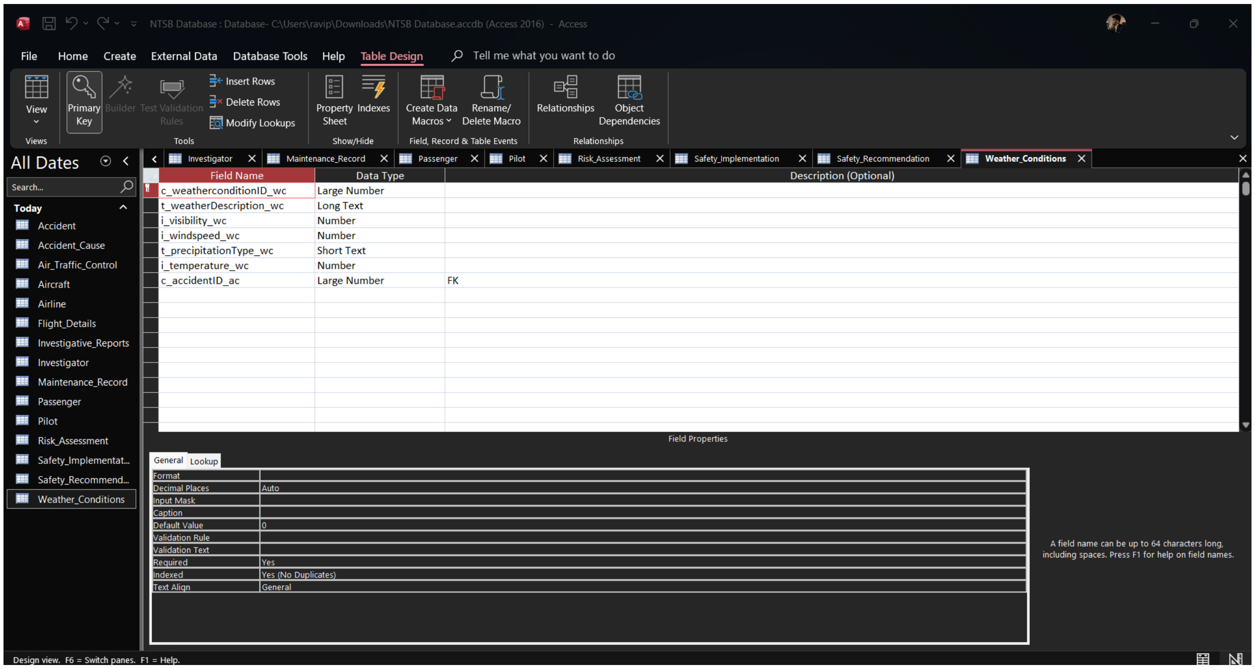
Format	
Decimal Places	Auto
Input Mask	
Caption	
Default Value	0
Validation Rule	
Validation Text	
Required	Yes
Indexed	Yes (No Duplicates)
Text Align	General

A field name can be up to 64 characters long, including spaces. Press F1 for help on field names.

Design view. F6 = Switch panes. F1 = Help.

9:34 PM 10/15/2024

- **Weather_Conditions**


NTSB Database : Database- C:\Users\ravip\Downloads\NTSB Database.accdb (Access 2016) - Access
File Home Create External Data Database Tools Help Table Design Tell me what you want to do
All Dates
Weather_Conditions

Field Name	Data Type	Description (Optional)
c_weatherconditionID_wc	Large Number	
t_weatherDescription_wc	Long Text	
i_visibility_wc	Number	
i_windspeed_wc	Number	
t_precipitationType_wc	Short Text	
i_temperature_wc	Number	
c_accidentID_ac	Large Number	FK

Field Properties

General Lookup

Format	
Decimal Places	Auto
Input Mask	
Caption	
Default Value	0
Validation Rule	
Validation Text	
Required	Yes
Indexed	Yes (No Duplicates)
Text Align	General

A field name can be up to 64 characters long, including spaces. Press F1 for help on field names.

Design view. F6 = Switch panes. F1 = Help.