Analysis of Wildlife Strikes to Aircraft
Practicum I CS5200

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1.Database Connection to AWS cloud

```
## [1] "Connection to MySQL/MariaDB server successful!"
```

4.Creating the schema as suggested

```
## <MySQLResult:0,0,0>
```

```
## <MySQLResult:0,0,1>
```

```
## <MySQLResult:0,0,2>
```

```
## <MySQLResult:0,0,3>
```

```
## [1] 0
```

```
## [1] 0
```

```
## [1] 0
```

```
## [1] 0
```

5.Importing the .csv files

6.Populating the Tables with DFs

```
## Data has been successfully written to the 'airports' table.
```

```
## Data has been successfully written to the 'flights' table.
```

```
## Data has been successfully written to the 'conditions' table.
```

```
## Data has been successfully written to the 'strikes' table.
```

7.making sure if data populated correctly

```sql
SELECT * FROM airports
```

```sql
SELECT * from flights
```

```sql
SELECT * from conditions
```

```sql
SELECT * from strikes
```

##8.Top Airports with Strikes

Table 1: Displaying records 1 - 10

state	incidents
California	2520
Texas	2453
Florida	2055
New York	1319
Illinois	1008
Pennsylvania	986
Missouri	960
Kentucky	812
Ohio	778
Hawaii	729

##9 Analysis by Airline

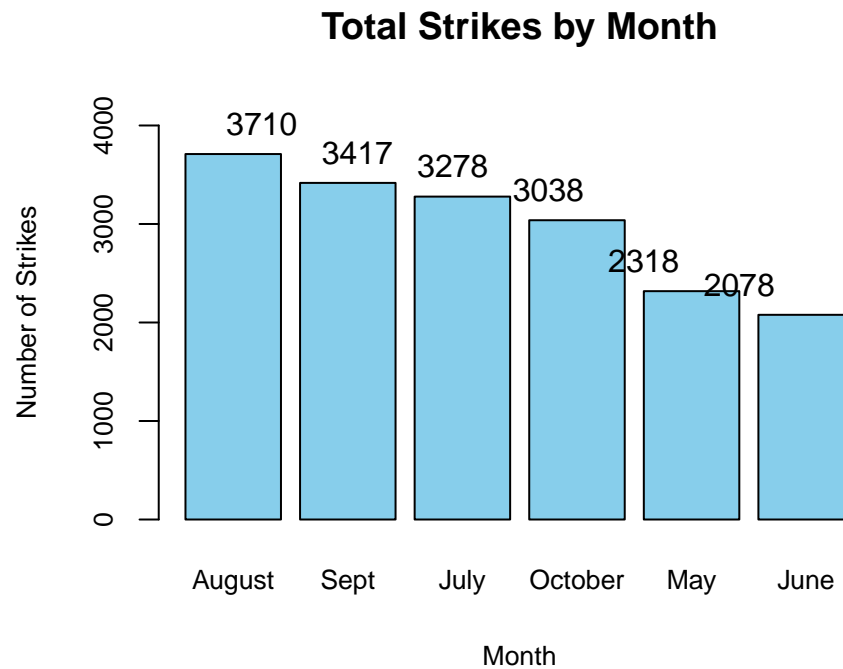Table 2: Displaying records 1 - 10

airline	number__of__incidents
SOUTHWEST AIRLINES	4628
BUSINESS	3074
AMERICAN AIRLINES	2058
DELTA AIR LINES	1349
US AIRWAYS	1337
AMERICAN EAGLE AIRLINES	932
SKYWEST AIRLINES	891
JETBLUE AIRWAYS	708
UPS AIRLINES	590
UNITED AIRLINES	506

##10 Analysis by Month

Table 3: Analysis by Month

Month	Total Strikes
August	3710

Month	Total Strikes
September	3417
July	3278
October	3038
May	2318
June	2078

Total Strikes by Month

##11.Trend by Month

Creating stored Procedure

```sql
SELECT * FROM strikes WHERE sid=30010
```

Table 4: 0 records

sid	fid	numbirds	impact	damage	altitude	conditions

```sql
CREATE TABLE IF NOT EXISTS audit_log (
    log_id INT AUTO_INCREMENT PRIMARY KEY,
    modification_type VARCHAR(50),
    table_name VARCHAR(50),
    timestamp TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
    primary_key INT);
```

```sql
DROP PROCEDURE IF EXISTS delete_strike;
```

```sql
CREATE PROCEDURE delete_strike(IN strike_id INT)
BEGIN
    DECLARE mod_type VARCHAR(50);
    DECLARE tbl_name VARCHAR(50);
    SET mod_type = 'deleted';
    SET tbl_name = 'strikes';
    -- Log the removal in audit_log
    INSERT INTO audit_log (modification_type, table_name, primary_key)
    VALUES (mod_type, tbl_name, strike_id);
    DELETE FROM strikes WHERE sid = 'strike_id';
END;
```

```sql
CALL delete_strike(30010);
```

```sql
SELECT * FROM audit_log
```

Table 5: 1 records

log_id	modification_type	table_name	timestamp	primary_key
1	deleted	strikes	2024-03-12 22:57:00	30010

```r
dbDisconnect(con)
```

[1] TRUE