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title: "Practicum I / Design & Implement a Relational Database"
Authors: null
output:
  pdf_document: default
  html_notebook: default
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# 1. Library
#library(RMySQL)

# 2. Settings
#db_user <- 'root'
#db_password <- '####'
#db_name <- 'cs_Database_Project1'
#db_table <- 'courses'
#db_host <- '127.0.0.1' # Host 83.10.214.176
#db_port <- 2211

# 3. Read data from db
#mydb <- dbConnect(MySQL(), user = db_user, password = db_password,
  #dbname = db_name, host = db_host, port = db_port)#

```{r}
# 1. Library
library(RMySQL)

# 2. Settings
db_user <- 'cs_database_nu22'
db_password <- 'K#####'
db_name <- 'csDatabseProject'
#db_table <- 'incidents'
#db_table <- 'airports'
#db_table <- 'conditions'
#db_table <- 'InsertIncidents'
db_host <- 'db4free.net' # Host 83.10.214.176
db_port <- 2211

# 3. Read data from db
mydb <- dbConnect(MySQL(), user = db_user, password = db_password,
  dbname = db_name, host = db_host, port = db_port)
```

#-Drop Table-

```{sql connection=mydb}
DROP TABLE IF EXISTS incidents
```

```{sql connection=mydb}

```

```
DROP TABLE IF EXISTS airports
```

```
...
```

```
```{sql connection=mydb}
```

```
DROP TABLE IF EXISTS conditions
```

```
...
```

```
```{sql connection=mydb}
```

```
DROP PROCEDURE IF EXISTS InsertIncidents
```

```
...
```

```
#create table and constrains
```

```
```{sql connection=mydb}
```

```
CREATE TABLE incidents(  
    rid INT PRIMARY KEY,  
    date DATE,  
    origin INT,  
    airline VARCHAR(50),  
    aircraft VARCHAR(50),  
    flightPhase VARCHAR(50),  
    altitude VARCHAR(50),  
    conditions INT,  
    warning BOOLEAN
```

```
)
```

```
...
```

```
```{sql connection=mydb}
```

```
CREATE TABLE airports(  
    aid int PRIMARY KEY AUTO_INCREMENT,  
    airportName VARCHAR (150),  
    airportCode VARCHAR(50),  
    state VARCHAR(50);
```

```
)
```

```
...
```

```
```{sql connection=mydb}
```

```
ALTER TABLE incidents  
add constraint fk_incidents_origin  
FOREIGN KEY (ORIGIN) REFERENCES airports(aid);
```

```
)
```

```
...
```

```

```{sql connection=mydb}
CREATE TABLE conditions(

    cid INT PRIMARY KEY AUTO_INCREMENT,
    conditions VARCHAR (100),
    explanation VARCHAR(256)
)
```

```{sql connection=mydb}
ALTER TABLE incidents
ADD constraint fk_incidents_conditions
FOREIGN KEY (CONDITIONS) REFERENCES CONDITIONS(cid);
)
```

```{sql connection=mydb}
ALTER TABLE incidents
FOREIGN KEY (CONDITIONS) REFERENCES CONDITIONS(cid);
)
```

```{sql connection=mydb}
ALTER TABLE incidents
ADD constraint chk_incidents_phase
check(flightPhase IN ('takeoff',
    'landing', 'inflight', 'unknown'));
```

#load data from csv file

```{r}
birdStrikesData <- read.csv(file="BirdStrikesData-V2.csv", header=TRUE,
sep=",")
sky_conditions <- unique(birdStrikesData['sky_conditions'])
```

# Change colname of one column
```{r}
colnames(sky_conditions)[colnames(sky_conditions) == "sky_conditions"] <-
"conditions"
```

```{r}
dbDisconnect(mydb)
```

```